



UNDERGRADUATE CATALOG 2020-2021

Courses, Degree Requirements,
Faculty and General Information

www.uhcl.edu/catalog



General Information

General information contains an overview of University of Houston-Clear Lake, and its services and policies that pertain to both undergraduate and graduate students. This information becomes effective with the beginning of the fall 2020 semester.

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University Overview

University of Houston–Clear Lake is a student–centered, community–minded, partnership–oriented university that offers bachelor's, master's and select doctoral degree programs to enhance the educational, economic and cultural environment of the region. The university serves a diverse student population from the state, the nation and abroad – particularly from the Houston–Galveston metropolitan area – by offering programs on and off campus.

UHCL offers a variety of programs in business, education, human sciences and humanities, and science and engineering. Academic programs are designed to develop the critical thinking, creative, quantitative, leadership and communication skills of students.

The university is committed to community engagement through partnerships with educational institutions, businesses, government agencies and nonprofit organizations.

A Metropolitan University

Adjacent to NASA's Johnson Space Center, UHCL is situated in the heart of Clear Lake's high–tech community. The campus is located between downtown Houston and Galveston Island. Its neighbors to the east are Armand Bayou Nature Center and Bayport Industrial Complex. As one of the leading higher education institutions serving the Texas upper Gulf Coast, UHCL is a vital component of the surrounding region. The university conducts applied and basic research. It engages in community and professional services that support both the economic development and the quality of life of the area. Because a strong university is essential to the success of the area's industries, UHCL is dedicated to developing and strengthening programs that support the region's various commercial, engineering, human services and trade sectors, especially in the computing, medical, petrochemical and space industries.

Students and faculty apply academic theories and conduct research through UHCL's centers, institutes, clinics and laboratories. These entities include:

- Art School for Children and Young Adults
- Center for Executive Education
- Center for Autism and Developmental Disabilities
- Center for Educational Programs
- Center for Professional Development of Teachers
- Center for Robotics Software
- Counseling Clinic
- Cyber Security Institute
- Diagnostic Reading Clinic

- Environmental Institute of Houston
- Exercise and Nutritional Health Institute
- Learning Resources Review Center
- Mathematics Center
- Psychological Services Clinic
- Research Center for Language and Culture

Establishment of UHCL

The establishment of UHCL was authorized by the 62nd Texas Legislature in 1971. The measure was the result of a 1968 report by the Coordinating Board, Texas College and University System (now the Texas Higher Education Coordinating Board), which called for a second University of Houston campus to provide upper-level and graduate programs. In 1973, the Texas Senate authorized construction of a permanent campus at Clear Lake.

Construction began early in 1974 with the first phase of the Bayou Building. September 1974 marked the beginning of regularly scheduled classes on the UHCL campus under the leadership of founding chancellor, Alfred R. Neumann. Opening-day enrollment totaled 1,069 students. Charter faculty included 60 professors. Today, the university has approximately 8,900 students, and more than 600 full-time and adjunct faculty.

In fall 2014, UHCL welcomed its first-ever freshman class. The university received approval from the state in 2011 for downward expansion, which allowed the university to add freshman- and sophomore-level courses to its roster.

Creation of UHCL Pearland

In 2007, the Texas Higher Education Coordinating Board approved creation of UH-Clear Lake at Pearland. Located at 1200 Pearland Parkway, the new campus was developed as a partnership between UHCL and the city of Pearland to improve access to higher education for Pearland-area residents.

In 2009, construction began on a facility that featured eight media-equipped classrooms, two teaching labs, library and other student resources. Classes began in fall 2010, with more than 600 students enrolling in degree programs such as accounting, business, criminology, education, nursing and psychology.

In fall 2014, UHCL Pearland began offering courses toward a Bachelor of Science in Nursing degree for registered nurses with associate degrees. The RN to BSN program is customized for students who wish to improve managerial skills and advance as nurse managers, educators or administrators.

Since 2017, UHCL Pearland has hosted Alvin Community College core classes, which are transferrable to UHCL.

In fall 2018, classes became available for students in UHCL's Doctor of Education in Educational Leadership program. In spring 2019, classes began in a new, three-story Health Sciences and Classroom Building, featuring a simulated hospital environment, 100-seat lecture hall, laboratories, faculty offices and study zones.

For more information about degree programs offered at UHCL Pearland, call the Office of Enrollment Services at 281-212-1690.

Accreditations

University of Houston-Clear Lake is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, master's and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Ga. 30033-4097 or call 404-679-4500 for questions about the accreditation of the University of Houston-Clear Lake.

The College of Business maintains accreditation for graduate and undergraduate business programs by the Associate to Advance Collegiate Schools of Business (AACSB International). College of Business accounting programs also maintain separate AACSB accounting accreditation.

The College of Education is accredited by the Texas State Board for Educator Certification (SBEC).

The College of Human Sciences and Humanities has several accredited programs. The Behavioral Analysis program is accredited by the Association for Behavioral Analysis International. The Family Therapy program is accredited by the Commission on Accreditation for Marriage and Family Therapy Education. The Human Factors Certificate and the Human Factors concentration in the M.S. Psychology program are both accredited by the Human Factors and Ergonomics Society. The Registered Nurse to Bachelor of Science in Nursing program is accredited by the Accreditation Commission for Education in Nursing. The School Psychology program is approved by and has received National Recognition from the National Association of School Psychologists. The Bachelor of Social Work is accredited by the Council on Social Work Education. The Doctor of Psychology in Health Service Psychology has been awarded accreditation on contingency by the American Psychological Association. In addition, the National Strength and Conditioning Association has recognized the Fitness and Human Performance curriculum as preparing students for successful entrance into the career field.

The College of Science and Engineering's undergraduate degree program in Computer Engineering is accredited by the Engineering Accreditation Commission of ABET. The undergraduate degree program in Computer Science and Computer Information Systems are accredited by the Computing Accreditation

Commission of ABET. The program in Chemistry is accredited by the American Chemical Society (ACS). The undergraduate programs in Occupational Safety - Health and Industrial Hygiene and Safety are accredited by the Applied and Natural Science Commission of ABET.

The Office of Counseling Services is accredited by the International Association of Counseling Services (IACS). The Doctoral Internship Program in the Office of Counseling Services is additionally accredited by the American Psychological Association (APA).

Governance

UHCL is one of four institutions with distinct identities and missions that make up the University of Houston System. The universities are governed by the UH System Board of Regents and Chancellor Renu Khator. Administrative responsibility for UHCL is vested in its president. UHCL's shared governance process includes the Faculty Senate, University Staff Association and Student Government Association, working with the university's administration through various committees and councils including University Council, which is chaired by the university's president. Other councils/committees include Academic Council, University Life Committee, Planning and Budgeting Committee, and Facilities and Support Services Committee.

The Campus

UHCL's buildings are situated in a 524-acre natural environment. The campus features picturesque, park-like settings with Horsepen Bayou winding through heavily wooded areas abundant with wildlife.

The Arbor Building houses painting, ceramics, weaving and photography studios, as well as educational centers, teaching methods labs and psychology facilities, notably UHCL's Center for Autism & Development Disabilities.

The Bayou Building houses the majority of classrooms, administrative and faculty offices, the library, alumni relations, bookstore, cafeteria, computing services and laboratories, copy services, mail room and Bayou Theater. It is also home to the Center for Executive Education, Center for Professional Development of Teachers and other research activities.

The Delta Building houses student computer laboratories, classrooms and computing faculty offices. It is home to UHCL's Cyber Security Institute and Center for Robotics Software.

The Student Services and Classroom Building accommodates functions that include enrollment, health, counseling, academic support and veteran services. The one-stop Student Assistance Center provides enrollment, registration, fee payment, financial aid and scholarship services.

The STEM and Classroom Building houses classroom and lab space for science, technology and mechanical engineering. A three-story section accommodates classrooms, teaching labs and research labs; a two-story section is home to offices, computer lab and a 100-seat tiered lecture hall.

The Recreation and Wellness Center includes academic and recreational wings, open study spaces, casual seating, food service and private study rooms. An indoor, elevated three-lane running track provides runners a campus view while overlooking two regulation-sized basketball courts and a multi-activity court for indoor soccer, hockey and other sports. It also features weight and cardio rooms, two multipurpose rooms for yoga and other exercises as well as three teaching labs and two classrooms. Also, it is home to UHCL's Exercise and Nutritional Health Institute.

UHCL'S Environmental Institute of Houston is located in North Office Annex 1, just off Entrance 3 adjacent Parking Lot D.

The Central Services Building is headquarters for building maintenance, grounds and custodial services, scheduling and space planning, and vehicle maintenance. The UHCL Police Department is located next to Central Services.

Construction began summer 2018 on a 297-bed, student housing building immediately adjacent to the Recreation and Wellness Center. The residence hall will be completed and ready for occupancy in fall 2019.

University Forest Apartments is a privately owned and managed apartment complex built in 1995 on the campus of the university. This 136-unit student housing facility is a two-story complex that includes a central courtyard with clubhouse, laundry facility, swimming pool, jacuzzi, sand volleyball court, barbecue grills, and picnic and lounge areas.

University Services

Alfred R. Neumann Library

UHCL's Alfred R. Neumann Library (www.uhcl.edu/library), named after the university's founding chancellor, provides students with online access to thousands of books, journals, and scholarly resources. UHCL librarians offer personal research assistance to students and instruction on navigating search interfaces, retrieving information and evaluating information for use in scholarly research. Visit with librarians in person, or contact them by phone at 281-283-3910, by text at 281-816-4341, or by email at library@uhcl.edu.

Visitors can receive help formulating effective search queries and identifying the best online resources from a collection of more than 216 subscription-only databases, most with full-text articles. Classes are available in research procedures tailored to particular courses. The library classroom is equipped with laptops and interactive learning devices so that students may participate in an engaging hands-on learning environment. Students may also make appointments with librarians to explore more in-depth instruction on library research strategies in a comfortable and educational one-on-one environment.

UHCL students, faculty and staff may also borrow books from UH and UH-Downtown quickly and easily through the shared discovery tool: OneSearch. The TexShare card, available upon request in Neumann Library, allows a UHCL student to borrow books from most academic or public libraries in Texas. The library's interlibrary loan service will borrow requested materials from any library in the country through a national interlibrary loan network. Neumann Library offers 43 PCs and 4 iMacs for student use.

The library occupies approximately 80,000 square feet in the Bayou Building and contains collaborative study areas, laptop-friendly study space, group and individual study rooms and a presentation-practice room. The library contains more than 495,000 volumes and 585,000 e-books and provides access to more than 91,000 e-journals. The library has a collection of international films on DVD and subscribes to several educational video databases, which offer up to 100,000 streaming videos. A curriculum library for education students contain selected K-12 textbooks and classic and contemporary children's literature in print and audio.

In addition to the university collections, Neumann Library Archives & Special Collections department includes the NASA Johnson Space Center History Collection, materials related to human space flight and Clear Lake history. These materials are open for research to UHCL students, alumni, faculty, staff and the general public.

Computing and Telecommunications

The UCT Support Center serves as the first point of contact for all computing and telecommunications needs. Individuals may drop in at the center Monday through Thursday, 8 a.m. – 10:30 p.m., Friday and Saturday, 8 a.m. – 5 p.m. in the Bayou Building, Suite B2300, or contact the center by phone at 281-283-2828 or email supportcenter@uhcl.edu. Visit www.uhcl.edu/uct for details on available services, including documentation, self-help guides and policies.

Computing and telecommunications resources available to students, faculty and staff include:

- Email accounts.
- Various technology orientations and training programs including online software training, student lab orientation, new student, faculty and staff orientations, computer use training, faculty orientation for classroom technology and Blackboard training for faculty.
- Wireless-equipped laptops may be checked out for free from several convenient locations on campus.
- Academic computing labs for students, in multiple locations, open daily including weekends. Printers and photo/document scanners available in all labs. Lab hours and locations can be found at www.uhcl.edu/uct.
- Specialized teaching labs including PC labs for students to work in teams, a high-performance PC lab for special graphic application usage, and a Mac lab equipped with 24-inch iMacs for video editing/creating, digital graphics and photography classes.
- University classrooms equipped with integrated video and audio technology.
- Support for online students using the Blackboard Course Management System.
- Support for faculty in instructional design of online courses as well as for web-enhanced instruction.
- Server support for university website (www.uhcl.edu).
- Wireless access in all campus classroom buildings.
- High-speed network for data, video and internet access.
- Industry-recognized applications to block spam and intercept virus attacks on all university-owned computers.
- Secure remote access to campus resources via Virtual Private Network or VPN.
- Software purchase program for current faculty, staff and students that includes Microsoft and Adobe products.
- Access to Qualtrics and Gartner.
- Cisco VoIP telecommunications system for voice communications, including voicemail and fax service for faculty and staff.

UHCL Alumni Association

UHCL is committed to its alumni. The Office of University Advancement focuses on enhancing the pride, loyalty and engagement of alumni by connecting them to fellow UHCL alumni, parents, students, faculty and friends of the university through support services, activities and events.

All UHCL graduates and recipients of teacher's certificates are automatically members of the UHCL Alumni Association. Alumni are encouraged to share UHCL pride with family, friends, co-workers and community members by reconnecting and getting involved with UHCL. To learn more about the UHCL Alumni Association or to get involved, visit www.uhcl.edu/alumni or contact the Office of Development and Alumni Relations at 281-283-2021 or alumni@uhcl.edu.

University Police

The University of Houston-Clear Lake Police Department is responsible for law enforcement, security and emergency response at UHCL, UHCL Pearland, and UHCL Texas Medical Center. The UHCL police serve the university community and visitors alike through law enforcement, crime prevention, traffic control and public assistance programs. The department enforces all university regulations as well as local and state laws.

Emergency Management & Fire Safety and Environmental Health & Safety are also part of the UHCL Police Department. Emergency Management & Fire Safety coordinates university and community resources to protect lives, property and the environment through mitigation, preparedness, response and recovery from all natural and man-made hazards that may impact the campus. Environmental Health & Safety focuses on environmental protection, general safety, lab safety, and safety training.

The department is located at 700 Bayou Rd., across from Parking Lot D, behind the Bayou Building. Security services are available 24 hours a day, seven days a week by calling 281-283-2222. Trained, professional police and communications officers staff the department. The university police provide the following services: lock-shop services including card access and keys, vehicle unlocks, vehicle jump-starts, airing deflated tires, safety escorts to your vehicle and safety classes.

To report an on-campus crime or any emergency, call the University Police Department at 281-283-2222 from off-campus telephones or 2222 from on-campus telephones. For special announcements, emergency closings and other information, call the UHCL Hotline at 281-283-2221 or visit www.uhcl.edu/emergency. For a complete overview of the University Police Department and its services, visit www.uhcl.edu/police.

Parking

Parking is handled by the UHCL Parking Department. To purchase a student, faculty or staff permit, visit <http://uhclparking.t2hosted.com>. Guest passes may be purchased at kiosks located throughout campus. For more information, contact the Parking Department at 281-283-2277, email parking@uhcl.edu or visit www.uhcl.edu/parking.

Division of Student Affairs

Office of the Vice President for Student Affairs

The Office of the Vice President for Student Affairs provides support and leadership for the offices of Campus Recreation and Wellness, Career Services, Counseling Services, Dean of Students, Health Services, Orientation and New Student Programs, Student Affairs at the Pearland campus, Student Assistance Center, Student Conference for Research and Creative Arts, Student Diversity Equity and Inclusion, Student Housing and Residential Life, Student Involvement and Leadership, Student Publications and Veteran Services.

Office	Location	Phone
Vice President for Student Affairs	Bayou 2523	281-283-3025
Campus Recreation and Wellness	RWC 203	281-283-2331
Career Services	SSCB 3109	281-283-2590
Counseling Services	SSCB 3103	281-283-2580
Dean of Students	SSCB 1201	281-283-2567
Health Services	SSCB 1301	281-283-2626
Orientation and New Student Programs	SSCB 1202	281-283-2420
Student Assistance Center	SSCB 1102	281-283-2722
Student Conference for Research & Creative Arts	Bayou 1632	281-283-3375
Student Diversity, Equity and Inclusion	SSCB 1203	281-283-2575
Student Housing and Residential Life	Hunter Hall	281-283-2615
Student Involvement and Leadership	SSCB 1204	281-283-2560
Student Publications	Bayou 1239	281-283-2570
Veteran Services	SSCB 3201	281-283-3071

Campus Recreation and Wellness

The Department of Campus Recreation and Wellness serves the UHCL community through physical activity, educational programming, student engagement, and overall well-being. Our core mission is student development and success. We want to help our members develop healthy habits for a healthier life that will aid in their lives after college.

The department is housed in the new, 82,000 square-foot Campus Recreation and Wellness Center (RWC), providing the UHCL community with fitness spaces and equipment, two basketball/volleyball

courts, one multi-activity court, two multipurpose rooms, and a one-eighth mile indoor track. The facility also provides several social spaces for students to relax between classes or after a workout.

Members of the RWC will have access to fitness programming (personal training, group fitness, health and wellness education), intramural sports, sport clubs, outdoor activity space, and special events throughout the year. Memberships are available for non-students including faculty, staff, spouses and dependents. The Department of Campus Recreation and Wellness is the largest student employer on campus.

For more information:

Phone	281-283-2330
Email	CampusRecreation@uhcl.edu
Web	www.uhcl.edu/student-affairs/health-wellness/campus-recreation
Location	RWC 203

Career Services

Career Services assists students and alumni in establishing and/or advancing their careers in their degree fields, as well as provides support in securing jobs while enrolled at UHCL.

Career Services offers UHCL students and alumni:

- Vocational testing and assessment
- Job search assistance
- Mock interviews and résumé critiques
- Résumé referrals with career services registration
- Online job listings
- On-campus interviewing
- Multiple job fairs and networking events

To prepare our students for the competitive job market, UHCL also offers a Cooperative Education (Co-op) program. This program readies students for their careers through a graded, for credit course, which requires working in a paid position related to the student's field of study.

The Co-op program offers:

- Enriched student learning through experiences gained from performing work assignments and developing professional skills in a work setting.
- Two work plans. The alternating plan allows students to alternate semesters of full-time classes with cooperative education work experiences. This "parallel" plan allows students to work part-time while attending classes.
- Students must be degree-seeking and meet academic eligibility requirements as defined by the individual colleges. When enrolled in a cooperative education course, students are considered full-time for the purposes of enrollment verification, but not for purposes of determining eligibility for veterans benefits or financial aid.

Before participating in on-campus job interviewing, students are required to complete a Career Services or Co-op registration. Individual assistance is available by appointment and during walk in hours. All other services are available during regular office hours Monday - Tuesday 8 a.m. - 6 p.m., Wednesday - Friday 8 a.m. - 5 p.m.

For more information:

Phone	281-283-2590
Email	UHCLCareerServices@uhcl.edu OR employerservices@uhcl.edu
Web	www.uhcl.edu/career-services
Location	SSCB 3109

Counseling Services

Connect*Empower*Thrive

The mission of UHCL Counseling Services is to help students fulfill their goals by fostering connections with and among members of the university community, facilitating the discovery and realization of power in their strengths and developing the ability to address emotional and psychological challenges.

The licensed professionals in Counseling Services provide a variety of free and confidential services including individual, couples and group therapy for a variety of personal concerns including anxiety, depression, relationship problems, stress, family issues, substance abuse, grief/loss, trauma, body image, eating disorders, cultural and identity concerns, and adjusting to UHCL.

Additional services include psychiatry services, the MindSpa and biofeedback, outreach, consultation, support groups, and presentations/workshops. Visit our website for self-help resources including

instructions to log into WellTrack interactive self-help therapy, take a mental health screening, or use relaxation exercises.

For more information:

Phone	281-283-2580
Web	www.uhcl.edu/counselingservices
Location	SSCB 3103

Dean of Students

The Dean of Students Office serves as the "central hub" for all on campus, student related issues.

When a student joins UHCL, they become part of a community that promotes civility, respect and ethical behavior toward everyone, and in every situation. The Dean of Students Office strives to provide a safe and respectful educational environment that lends itself to learning by serving as an advocate and liaison for UHCL's students, faculty, staff and parents.

The Dean of Students Office also provides referrals and support for students experiencing difficulties or in need of professional assistance with issues including resolving concerns and conflicts; implementing student policies; and, resolving disputes and disciplinary problems. Through the interpretation and facilitation of the [Student Code of Conduct](#), the Dean of Students Office holds all students to the highest standards of honor, character and excellence.

We also offer the following support services to assist our students in achieving their academic and co-curricular objectives:

- Conflict Resolution
- Emergency Support Resources
- Behavior and Conduct
- Parent and Family Resources

Student Travel Policy

The University of Houston System Travel Policy guides and directs all student travel. This policy, titled "Student Travel" (University of Houston System Administrative Memorandum - 03.E.08), is administered by the Office of the Dean of Students.

The purpose of the policy is stated as follows:

"This document outlines the policy to minimize risks of liability connected with travel by students of component universities. This policy applies to travel in excess of 25 miles that is undertaken by one or more students presently enrolled in a component university. Travel must be organized and sponsored by the component university and funded by the institution. The vehicles must be owned by the institution or an organization registered at the institution."

Copies of the policy are available upon request at the Dean of Students office or online at the Dean of Students' website.

For more information:

Phone	281-283-2567
Email	deanofstudents@uhcl.edu
Web	www.uhcl.edu/dean-of-students
Location	SSCB 1201

Division of Student Affairs at University of Houston-Clear Lake at Pearland

The Division of Student Affairs at University of Houston–Clear Lake at Pearland works in collaboration with its counterpart offices at the Clear Lake campus to coordinator services and programs that enhance the learning environment and contribute to the student's academic and personal success. Pearland Student Affairs provides information, resources and services for the offices of Campus Recreation and Wellness, Career Services, Counseling Services, Dean of Students, Health Services, Orientation and New Student Programs, Student Assistance Center, Student Conference for Research and Creative Arts, Student Diversity Equity and Inclusion, Student Housing and Residential Life, Student Involvement and Leadership, Student Publications, Veterans Services and the Office of the Vice President for Student Affairs.

For more information:

Phone	281-212-1679
Email	SApearland@uhcl.edu
Web	https://www.uhcl.edu/pearland/student-affairs/
Location	Room P152, Pearland Academic Building (PAB) 1200 Pearland Parkway, Pearland, TX; 77581

Health Services

Health Services provides a wide range of professional services to the UHCL student population. It is dedicated to promoting good health, providing emergency services and short-term medical treatment to any student who becomes ill or injured.

Health Services includes both women's health care and general medical clinics, complete laboratory services and a limited pharmacy. Students may receive flu shots, immunizations, TB screening and routine injections. Nurses are readily available to answer health questions on a walk-in basis. Health Services also provides prevention programs including screenings and health education. A chiropractic clinic as well as physician evaluations are also available by appointment only.

Enrolled undergraduate students with six or more credit hours, or graduate students enrolled in three or more credit hours, are eligible for student health insurance coverage within the posted open enrollment period. Literature detailing the approved student health insurance plan is available at the Health Services clinic and on the website page. International students are required to have health insurance, and are charged automatically at the beginning of each semester. International students may have this insurance requirement waived if documented proof of an appropriate, alternative health insurance plan is provided by the AHP Student Health Insurance Company online (See Health Services Webpage for more information).

For more information:

Phone	281-283-2626
Email	healthcenter@uhcl.edu
Web	www.uhcl.edu/student-affairs/health-wellness/health-services
Location	SSCB 1301

Orientation and New Student Programs

A comprehensive orientation into UHCL is offered prior to each semester (including summer) for both undergraduate and graduate students. New undergraduate students must attend this mandatory program, which addresses topics including how to utilize the available UHCL resources, connecting to the UHCL academic environment and learning how to make the most of campus life. Students are also given the opportunity to tour the campus, as well as meet with faculty, staff, and other students.

All new international students are required to attend New International Student Orientation. This orientation is mandatory for undergraduate and graduate international students. This program will assist your successful transition to UHCL and includes opportunities to connect with faculty, staff, and other students.

On-going support is provided through a variety of transition programs including Weeks of Welcome, Midterms and Finals events. Orientation and New Student Programs collaborates with different resources on campus to offer intentional activities that support success.

International students, please refer to the Office of International Admissions and Programs orientation information at: www.uhcl.edu/student-affairs/campus-community/orientation/international

For more information:

Phone	281-283-2420
Email	orientation@uhcl.edu
Web	www.uhcl.edu/student-affairs/campus-community/orientation
Location	SSCB 1202

Student Assistance Center (SAC)

The Student Assistance Center (SAC) is a multi-service center designed to answer questions about campus services and to provide guidance in navigating university policies, procedures and resources. SAC offers advocacy, referral, and support for matters relating to admissions, registration, financial aid, student billing, academic support, course drop/withdrawal, student records, transcripts, E-Services, Hawk Card services, foster care alumni services, student affairs, and general university information. SAC operates the Bayou Building HAWK Help Desk, and supports students enrolled in online classes and student enrolled at off-campus locations. SAC strives to educate and empower students in making informed decisions concerning their academic and personal pursuits.

For more information:

Phone	281-283-2722
Email	SAC@uhcl.edu
Web	www.uhcl.edu/sac
Location	SSCB 1202

Student Conference for Research and Creative Arts

The Student Conference for Research and Creative Arts is an affordable student event where students from any college or university present their original research projects and works in a variety of formats from any discipline. The program provides students with a forum to showcase their skills in a supportive, academic and professional setting.

Numerous faculty members have incorporated this conference and its presentations into their course curriculum by requiring students to either present, attend or volunteer – effectively bridging student affairs and UHCL academics. The conference provides students with the opportunity to deliver compelling academic presentations before their peers, as well as provides those who are simply in attendance with invaluable exposure to thought-provoking works. The conference engages the diverse UHCL community in discussion – an activity that echoes UHCL's mission statement.

For more information:

Phone	281-283-3375
Email	studentconf@uhcl.edu
Web	www.uhcl.edu/student-conference
Location	Bayou 1632

Student Diversity, Equity and Inclusion (SDEI)

SDEI provides advocacy, guidance, and support to enhance student success. The SDEI staff promotes the persistence and empowerment of a diverse student population, which includes race, color, sex (including pregnancy), religion, national origin, disability, age, veteran status, genetic information or sexual orientation, gender identity, gender expression, first-generation, and all other historically underrepresented student populations. Through its educational programming and services, SDEI facilitates the growth of culturally competent, respectful, global citizens.

UHCL SDEI Programming and Cultural Services

- **Student Advocacy** – Any student seeking general advice or assistance with concerns or problems, may request assistance from the SDEI staff. Staff members serve as an advisory resource to all individuals and groups of students, including underrepresented, first-generation, marginalized, international, LGBTQ+, and women populations.
- **Student Ambassador Program** – SDEI Student Ambassadors serve as peer leaders advocating for all students.

- **Cultural Resource Center** – SDEI maintains a collection of periodicals, books, training manuals, newsletters, audiotapes and videos on an assortment of cultural topics.
- **Cultural Programs/Festivals** – SDEI celebrates diversity on campus with a variety of cultural programs designed to enhance campus community members' understanding of different cultural practices, beliefs and histories/herstories.
- **Student Organizations** – Staff members provide support to ethnic and cultural student organizations and their events.
- **Transition and Retention Programs** – SDEI offers programs specific to the needs of first-generation students to help them navigate the higher education system and ease their transition into college.
- **Gen One Circle** - GenOne Circle is a learning community created to help incoming first-generation students transition, adjust, and negotiate the campus environment which promotes a successful academic and social experiences.

UHCL SDEI Women's and LGBTQ+ Services

The SDEI Office offers women's services designed to promote gender equality and awareness. Advocacy and support programs are open to all those who are interested in women's and LGBTQ+ issues.

- **Women's Programming** – includes increasing awareness of sexual assault, the contributions of women throughout their story; and, health issues including breast cancer and heart disease.
- **LGBTQ+ Programming** – includes Pride Week and activities honoring days of recognition such as National Coming Out Day and Trans Day of Remembrance.

UHCL SDEI Training

The SDEI Office offers training workshops including those that promote cultural competency for leaders, social justice awareness, allyship, and diversity, equity, and inclusion. These trainings-examine the meaning social identities hold for us as individuals, explore the dynamics of the difference as they relate to diversity and social justice, and focus on inclusion, diversity, and multicultural issues prevalent in higher education. These training workshops provide participants with the tools needed to reduce barriers and create a more inclusive environment at UHCL. All workshops are open to UHCL faculty, staff and students.

For more information:

Phone	281-283-2575
Email	studentdiversity@uhcl.edu
Web	www.uhcl.edu/student-affairs/student-engagement/diversity-inclusion/student-diversity
Location	SSCB 1203

Student Housing and Residential Life

Living on campus involves much more than just having a place to sleep. Student Housing and Residential Life provides a "home away from home" environment and experience that fosters academic excellence and personal development in an inclusive and engaged community.

In Fall 2019, we expanded our housing options with a new suite-style residence hall (Hunter Hall). Residing in the heart of the UHCL campus, Hunter Hall offers students a safe (electronic swipe access) living and learning environment with nearby access to many campus resources including SSCB, Bayou, and the Campus Recreation and Wellness Center. Your classes are just a short walk away from your hall.

Hunter Hall is comprised of both suite-style rooms, and a limited number of single rooms with a private bathroom. The suite style option includes a double room with two residents sharing the room, or a single room connected by a bathroom. Residents will also have access to a fully furnished room, study lounges, a community kitchen, Wi-Fi/high-speed internet, utilities (included), on-site laundry facilities (included in housing fee), and an outside patio area. As your "home away from home" we strive to meet your needs as a student and whole person.

A Residential Life Coordinator (professional staff) and several Resident Advisers (student staff) live on-site, throughout the hall. Our staff is here to help assist you succeed both academically and socially. From offering hands-on guidance and valuable life skills to providing fun high-impact programs and initiatives, our staff is here to serve, challenge, and support you. We want you to find your place at UHCL.

We hope you will take advantage of this on-campus housing opportunity to **Live** in a safe and inclusive community of your peers, **Learn** more about yourself, and **Engage** with the campus community as a whole. Hunter Hall is here to help you live, learn, and stay engaged on campus.

For more information:

Phone	281-283-2615
Email	housing@uhcl.edu
Web	www.uhcl.edu/housing or https://www.facebook.com/UHCLSHRL
Location	Hunter Hall

University Forest Apartments (UFA)

UFA is located on campus, just a short walk to classes and campus activities. UFA accommodates a community of 288 students, and offers apartment-style living with three private or semi-private floor plans. Each apartment has a full kitchen equipped with a refrigerator, dishwasher, stove and oven. The housing installment includes wireless internet, furniture (select floor plans), electricity allowance and water/sewer. Residents also have access to onsite amenities such as a study room, swimming pool and spa, clubhouse, sand volleyball court, barbeque pavilion, and much more within the pet-friendly, gated community.

UFA believes its responsibility extends beyond just lodging for its residents. UFA strives to create a total residential living environment that enhances university life, while creating a supportive community for the residents during a key stage in their personal and educational development. The UFA offers a memorable campus experience where students have fun, make friends, have access to support when needed, and develop crucial life skills - all while achieving their academic goals.

For more information:

Phone	281-283-5959
Email	info@universityforestUHCL.com
Web	www.universityforestUHCL.com or www.facebook.com/UniversityForest
Location	2600 Bay Area Blvd., Houston, TX 77058

Student Involvement and Leadership

The Office of Student Involvement and Leadership provides programs and services designed to enrich and support educational experiences through opportunities to express ideas; develop leadership skills; and, meet new people. The department works directly with the Student Government Association, students organizations, leadership development programs, the Campus Activities Board, and activities rich in spirit and tradition.

Student Organizations and Student Government Association (SGA)

There are approximately 100 student organizations recognized at UHCL, which represent most of the academic program areas and majors, as well as social, recreational and religious interests. The Student Government Association (SGA), with representation from each organization, funds and assists student organizations. The SGA also appoints students to university committees and conveys student concerns and initiatives to the university administration.

The Office of Student Involvement and Leadership supports the varied activities of the organizations through leadership development programs, space allocations and fund disbursement. All students are encouraged to participate in the activities of these organizations.

Activities and Spirit Programs

There are a variety of activities and spirit programs on campus, including Campus Activities Board, Film and Speaker Series, Leadership Workshop Series, I HEART UHCL, Lighting of the Letters, and our oldest campus tradition: the annual Chili Cook-Off.

The Office of Student Involvement and Leadership also provides the following services:

- Locker Rentals
- Student ID Cards
- Ticket Sales and Posting Approval
- Student Organization and Student Government Association

Honor Societies

UHCL's honor societies recognize the student's academic excellence and achievement. The honor societies are affiliated with national organizations, where students are invited to become members based on the standards recognized by these chartering organizations. Some societies recognize accomplishments within specific disciplines, while Phi Kappa Phi and Omicron Delta Kappa honor students from all academic disciplines.

For more information:

Phone	281-283-2560
Email	getinvolved@uhcl.edu
Web	www.uhcl.edu/student-affairs/student-engagement/student-involvement/
Location	SSCB 1204

Student Publications

The student newspaper, The Signal, is a digital newspaper published through the joint efforts of a paid student staff, students enrolled in the COMM 4665 Media Production class, and the contributions of an engaged student, faculty and staff campus community. The Signal is published year-round to provide news, features, entertainment, and opinion pieces concerning university events and issues. The

newspaper serves as a public forum, and encourages students, faculty and staff to submit contributed articles, essays, visuals, story ideas and comments.

The Signal has received numerous awards in state and national collegiate competitions from the Texas Intercollegiate Press Association, Columbia Scholastic Press Association and Associated Collegiate Press Association. Online issues of The Signal and submission guidelines can be found at the website below. The Signal is also available on web-enabled phones.

For more information:

Phone	281-283-2570
Email	thesignal@uhcl.edu
Web	www.uhclthesignal.com
Location	Bayou 1239

Veteran Services

It is the mission of the Capt. Wendell M. Wilson Office of Veteran Services to help veterans and their dependents flourish in their higher education pursuits. We act as a liaison between the military-connected student, the school, the Department of Veterans Affairs (VA), and the Texas Veterans Commission in order to ensure these goals are reached. Our staff members are committed to assisting veterans and their eligible dependents with federal or state education benefits gained through military service.

Military-connected students entering UHCL should contact the Capt. Wendell M. Wilson Office of Veteran Services immediately to establish their benefits in a timely manner. For one-on-one counseling regarding your benefits, contact us directly at vso@uhcl.edu or by phone at 281-283-3071.

Services include:

- Providing certification of enrollment for the following federal benefits: Post 9/11 GI Bill®, Montgomery GI Bill, Reservist Educational Assistance, Vocational Rehabilitation and Employment Program and Dependent Educational Assistance.
- Processing of Hazlewood Exemptions and Hazlewood Legacy Act.
- Determining eligibility for House Bill 269 (military service credit).
- Establishing residency for those who are receiving federal or state veteran education benefits.

For information regarding veteran services for **undergraduate** students, see [Undergraduate Information - Veteran Services](#)

For information regarding veteran services for **graduate** students, see [Graduate Information - Veteran Service](#)

For more information:

Phone	281-283-3071
Email	vso@uhcl.edu
Web	www.uhcl.edu/veteran-services
Location	SSCB 3201

Undergraduate Information

Undergraduate information contains an overview the services and policies that pertain to undergraduate students. This information was published in June 2020, and becomes effective with the beginning of the fall 2020 semester.

In this section

- [Core Curriculum Requirements](#)
- [Financial Aid](#)
- [General Program Requirements](#)
- [International Admissions and Programs](#)
- [New Student Admissions](#)
- [Online and Off-Campus Education](#)
- [Registration and Records Services](#)
- [Tuition and Fees](#)
- [Veteran Services](#)

Core Curriculum Requirements

Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and, advance intellectual and practical skills that are essential for all learning (THECB, 2013). The core curriculum at UHCL contains 42 semester credit hours, encompassing nine component areas. Each component area has a minimum credit hour requirement and a set of specific courses that may be used to satisfy the requirement. The chart below details the courses that comprise UHCL's core curriculum and its Texas common course number (TCCN) equivalents.

Amendment: As of 10-26-20, the listed core curriculum content below supersedes any previously published information.

UHCL Course Number	Course Title	TCCN
Communications (6 hours)		
WRIT 1301	English Composition I	ENGL 1301
WRIT 1302	English Composition II	ENGL 1302
WRIT 2311	Intro to Professional Writing	ENGL 2311
Mathematics (3 hours)		

UHCL Course Number	Course Title	TCCN
MATH 1314	College Algebra	MATH 1314
MATH 1324	Finite Math	MATH 1324
MATH 1325	Business Calculus	MATH 1325
MATH 1332	Math for Liberal Arts	MATH 1332
MATH 1342	Elementary Statistics Methods	MATH 1342
MATH 1350	Fundamentals of Mathematics	MATH 1350
MATH 2412	Pre-calculus	MATH 2412
MATH 2413	Calculus I	MATH 2413
Life and Physical Sciences (6 hours)		
ASTR 1303	Stars and Galaxies	ASTR 1303
ASTR 1304	Solar Systems	ASTR 1304
BIOL 1306	Biology for Science Majors I	BIOL 1306
BIOL 1307	Biology for Science Majors II	BIOL 1307
BIOL 1308	Biology for Non-Science Majors	BIOL 1308
BIOL 1309	Biology for Non-Science Majors	BIOL 1309
BIOL 2301	Anatomy & Physiology I	BIOL 2301
BIOL 2302	Anatomy & Physiology II	BIOL 2302
CHEM 1305	Intro to Chemistry I	CHEM 1305
CHEM 1311	General Chemistry I	CHEM 1311
CHEM 1312	General Chemistry II	CHEM 1312
ENSC 1301	Environmental Science I	ENVR 1301
ENSC 1302	Environmental Science II	ENVR 1302
GEOL 1303	Physical Geology	GEOL 1303
GEOL 1304	Historical Geology	GEOL 1304
PHYS 1301	College Physics I	PHYS 1301
PHYS 1302	College Physics II	PHYS 1302
PHYS 2325	University Physics I	PHYS 2325
PHYS 2326	University Physics II	PHYS 2326
Language Philosophy and Culture (3 hours)		
ANTH 2346	General Anthropology	ANTH 2346
COMM 1307	Intro to Mass Communication	COMM 1307
HUMN 1301	Humanities	HUMA 1301
LITR 2341	Literature and Experience	ENGL 2341

UHCL Course Number	Course Title	TCCN
PHIL 1301	Into to Philosophy	PHIL 1301
WGST 1301	Gender Matters	
Creative Arts (3 Hours)		
ARTS 1303	World Art Survey I	ARTS 1303
ARTS 1304	World Art Survey II	ARTS 1304
ARTS 1314	Dance Appreciation	DANC 2303
ARTS 2379	Arts and the Child	
American History (6 hours)		
HIST 1301	US History I	HIST 1301
HIST 1302	US History II	HIST 1302
Government/ Political Science (6 hours)		
POLS 2305	Federal Government	GOVT 2305
POLS 2306	Texas Government	GOVT 2306
Social Behavioral Science (3 hours)		
CRIM 1301	Intro to Criminal Justice	CRIJ 1301
ECON 2301	Principles of Macroeconomics	ECON 2301
ECON 2302	Principles of Microeconomics	ECON 2302
GEOG 1303	World Regional Geography	GEOG 1303
PSYC 2301	Intro to Psychology	PSYC 2301
SOCI 1301	Intro to Sociology	SOCI 1301
SOCI 1306	Social Problems	SOCI 1306
Component Area Option (6 hours)		
ASTR 1103	Lab for Stars and Galaxies	ASTR 1103
ASTR 1104	Lab for Solar Systems	ASTR 1104
BIOL 1106	Lab for Biology I	BIOL 1106
BIOL 1107	Lab for Biology II	BIOL 1107
BIOL 1108	Lab for Biology Non-Sci Maj. I	BIOL 1108
BIOL 1109	Lab for Biology Non-Sci Maj. II	BIOL 1109
BIOL 2101	Lab for Anatomy & Physiology I	BIOL 2101
BIOL 2102	Lab for Anatomy & Physiology II	BIOL 2102
CHEM 1105	Lab for Intro Chemistry I	CHEM 1105
CHEM 1111	Lab for General Chemistry I	CHEM 1111

UHCL Course Number	Course Title	TCCN
CHEM 1112	Lab for General Chemistry II	CHEM 1112
COMM 1315	Public Speaking	SPCH 1315
EDUC 1100	Learning Framework	EDUC 1100
ENSC 1101	Lab for Environmental Science I	ENVR 1101
ENSC 1102	Lab for Environmental Science II	ENVR 1102
GEOL 1103	Lab for Physical Geology	GEOL 1103
GEOL 1104	Lab for Historical Geology	GEOL 1104
PHYS 1101	Lab for College Physics I	PHYS 1101
PHYS 1102	Lab for College Physics II	PHYS 1102
PHYS 2125	Lab for University Physics I	PHYS 2125
PHYS 2126	Lab for University Physics II	PHYS 2126
PSYC 1100	Learning Framework	PSYC 1100
PSYC 1300	Learning Framework: 1st Yr Seminar	PSYC 1300

Two 1-hour Natural Science Labs (Note: Labs are the co-requisites to the Life and Physical Sciences listed).

Assessment

UHCL may use educational assessment tools. "Educational assessment" is defined as the systematic collection, interpretation, and use of information about student demographics, educational environments, learning outcomes, and professional success. These assessment tools will not affect student grades, but will provide faculty with confidential detailed information that will be used to improve student learning, courses, curriculum, and program accreditation.

Freshman and Sophomore Students Taking Upper Level Courses

Students with less than 48 hours of college credit at the 1000/2000 level cannot enroll in 3000/4000 level courses.

English Composition I and II Requirement

All students who enter the university are required to complete WRIT 1301- English Composition I and WRIT 1302- English Composition II or their equivalents within the first 30 hours of their degree program.

Non-Course Based Options

UHCL offers non-course based options (NCBO) for students who do not pass one or more areas of the TSI Assessment and are required to take NCBO per the TSI guidelines. Students placed in NCBO will also

be placed in the entry-level college course for the subject area(s) needing improvement based on the TSI Assessment results. Participation in the NCBO and the companion college level course is mandatory during the first semester of enrollment. The NCBO are non-credit courses and are offered free of cost to students.

Financial Aid

Financial Aid Programs

The financial aid programs listed below are available to students seeking an undergraduate degree at University of Houston-Clear Lake. Students who wish to apply for financial aid should complete the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov. UHCL's federal school code is 011711. More information regarding the types of aid listed below can be found at www.uhcl.edu/finaid.

Programs

- Federal Pell Grant
- Federal Supplemental Education Opportunity Grant (FSEOG)
- Federal TEACH Grant
- Texas Public Educational Grant (TPEG)
- TEXAS Grant
- State funded Scholarships
- University Administered Scholarships
- New Hawk Scholarship
- Hawk Advantage Scholarship
- Automatic Transfer Scholarships
- Full-Time to Finish Scholarship
- Fifth Year Accounting Scholarship
- Resident Undergraduate Student Assistance Grant
- State of Texas Waiver and Exemption Programs
- Federal College Work Study Program (FWSP)
- Texas College Work Study Program (TWSP)
- Federal Direct Subsidized Stafford Loan*
- Texas College Access Loan
- Federal Direct Parent Loan for Undergraduate Student (PLUS) Loan
- Federal Direct Unsubsidized Stafford Loan*

*All students applying for their first Federal Direct Loan must complete entrance loan counseling and an electronic Master Promissory Note (eMPN) at <http://studentloans.gov> before loan funds can be disbursed.

Program availability is never guaranteed. Financial aid programs are subject to change at any time.

Qualifying for Financial Aid Programs

Students must meet these minimum requirements:

- Be a U.S. citizen, U.S. national (includes natives of American Samoa or Swain's Island) or U.S. permanent resident who has an I-151, I-551 or I-551C (Permanent Resident Card).
- Be degree-seeking in an undergraduate program.
- Be enrolled at least half-time (a minimum of six hours) at UHCL (Pell grants may be awarded to students enrolled less than half time).
- Be making satisfactory academic progress toward a degree or certification.
- Not be in default on any education loan or owe a refund on a federal and/or state grant.
- Be registered with Selective Service System, if male.
- Possess a high school diploma, GED, home-school completion record or equivalent of a high school diploma.

Applying for Financial Aid

Because regulations governing financial aid change each year, students are required to reapply and submit new documentation annually. Funding sources and requirements change from year to year, and the amount and type of aid awarded to students may also change. All financial aid applicants are required to submit the following:

- 2020-2021 Free Application for Federal Student Aid (FAFSA) available online at www.fafsa.gov.
- If the FAFSA is selected for a process called verification, the student/spouse and parent (if dependent) must provide the supplemental information requested by the Financial Aid Office.

The priority deadline is Jan. 15 of each year. Students applying after Jan. 15 can expect the majority of the grant money to be exhausted.

The FAFSA and any additional documents will not be reviewed or processed until admission requirements have been met.

Students must submit ALL requested documentation to the Office of Student Financial Aid one month before the end of the term they wish to receive financial aid. Failure to adhere to this deadline can prevent the student from being awarded and disbursed financial aid.

Awarding of Aid

Financial aid is awarded based on the information received on the FAFSA. It is our institutional policy to award available grant, scholarship, and work study funds before considering the student for student loans.

UHCL's policy is to award all eligible students based on information provided through the intended enrollment form. However, final awards will be based on actual enrollment. Therefore, eligibility and enrollment must be verified before funds are disbursed to each student's account at the beginning of each semester. New freshmen students will be packaged based on full-time enrollment.

Enrollment must again be verified after classes begin and at census date of the term. Awards that are processed after the semester begins are based on the actual number of hours in which students are enrolled, excluding hours of withdrawal.

Students whose files are incomplete should be prepared to pay for their tuition, fees, books and supplies at the time of registration. Financial aid will not be awarded until all financial aid documents have been received and admission requirements have been met.

Summer financial aid will be packaged based on applying through the Summer Financial Aid Application and actual enrollment.

Students must submit all documentation at least two weeks prior to the term in which they are eligible to receive aid. Once a student is not enrolled in UHCL or loses financial aid eligibility, they are no longer eligible to be awarded and are responsible for any past due balances.

Email as Official Communication

The university-assigned campus email address is the official communication vehicle for all student information and exchanges among academic administrative offices. The following notifications will be sent via email:

- Requests for additional information
- Notices of scholarship deadlines and opportunities
- Award notices
- Disbursement notices
- Award revisions
- Required consumer disclosure information

Also, most required consumer disclosure information is contained in the UHCL Financial Aid Guidebook located on the UHCL financial aid website (www.uhcl.edu/costs-aid).

Students should check their UHCL email accounts regularly to receive information from the Office of Student Financial Aid as well as other university offices. For information regarding UHCL email, or to log in, go to <http://webmail.uhcl.edu>.

Students have the ability to forward their UHCL email account to a preferred email account. Students interested in this option should visit University Computing and Telecommunications' website at www.uhcl.edu/computing.

Students wishing to receive a paper copy of all notifications must submit their request in writing to:

University of Houston–Clear Lake
Office of Student Financial Aid
Attn: Executive Director of Financial Aid
Box 5
2700 Bay Area Blvd.
Houston, TX 77058

Disbursement of Funds

Financial aid disbursement occurs when grants, loans, or scholarships are applied to a student's UHCL account.

Financial aid disbursements begin approximately seven days prior to the first class day. In some cases, financial aid disbursements may occur after the fee payment deadline. Any student who has anticipated aid showing on their student account in E-Services does not need to make payment arrangements for the fee payment deadline if the anticipated aid will pay their account balance in full. Students whose accounts will be paid in full with anticipated aid will not be charged late fees.

*Financial Aid disbursement for enrollment in a winter–mini class, will not occur until the first disbursement of the spring regular session.

Aid applied to a student's account will be applied to the current balance first.

If the financial aid credited to a student's account creates a credit balance, a refund will be issued to the student by Student Business Services after the term begins.

Some forms of financial aid, such as TEACH Grant and TEXAS Grant, may not disburse until after census date. Students concerned about a late payment due to these types of anticipated aid should contact the Office of Student Financial Aid.

The Office of Student Financial Aid will notify students by email when their financial aid is applied to their UHCL account.

Criteria for Satisfactory Academic Progress

Under federal and state statutes all students applying for or receiving federal or state financial assistance must be making satisfactory academic progress (SAP) toward a degree or eligible certification. The Office of Student Financial Aid also uses this requirement for awarding institutional funds.

Students receiving some waivers and exemptions must meet certain components of SAP.

Review for SAP is done at the time the student first applies for financial aid and at the end of each semester. SAP is based on the following qualitative and quantitative measures:

Grade Point Average

The qualitative measure requires that undergraduates and students working on a second bachelor's degree or teacher certification need to have maintained a cumulative UHCL Grade Point Average (GPA) of 2.000 or better.

*Financial Aid calculates a cumulative GPA for purposes of Satisfactory Academic Progress, which includes all grades received. Students repeating a course will have all grades included in their Financial Aid cumulative GPA calculation.

Completion Ratio

The quantitative measure requires that students must have completed 75% of their cumulative attempted hours (including transfer hours accepted by UHCL). This percentage is derived by dividing the total number of hours completed by the total number of hours attempted. Attempted hours are the total number of hours completed plus hours of WX, WQ, I, F, and IP. Hours of WX, WQ, I, and F are considered "not completed" and negatively affect the ratio requirements. The percentage derived must be 75% or greater.

Timeframe to Complete Academic Program

Students who are working on their first or second bachelor's degree, or teacher certification without a bachelor's degree, must complete their degree(s) within a total of 171 hours (including transfer hours). Hours counted include all coursework taken at UHCL (including WX, WQ, I, F, and IP grades) and accepted transfer coursework.

Students enrolled in the following programs must complete their program within the specific time frame listed below:

- Pre-Engineering program: 99 credit hours
- Post-Bachelor Pre-Engineering program: 99 credit hours

Students wishing to pursue a third bachelors degree will be considered on a case-by-case basis.

Note: Students changing plans are still held to timeframes originally begun with the first major chosen.

Appeal Process for Denial Based on Unsatisfactory Progress

Students who fail to meet the grade point average requirement or the completion ratio requirement will be given a "financial aid warning" for the following semester. Students will be notified via UHCL email of their warning status. Students who fail to meet SAP the following semester will not be eligible to receive financial aid unless they complete a SAP appeal and academic plan and that appeal is approved.

Students who fail to meet the timeframe requirement are not granted an automatic warning status and will not be eligible to receive financial aid unless they complete a SAP appeal and academic plan and that appeal is approved.

Appeals are considered for the following reasons:

- Increase in workload at place of employment because of promotion or overtime. Documentation from the employer may be required.
- Personal illness or serious illness of immediate family members, such as spouse, child, parent or sibling. Documentation is required. Acceptable forms of documentation include but are not limited to receipts for doctor visits, insurance Explanation of Benefits (EOB), or a note from the doctor.
- Death of a family member. Documentation is required, such as a death certificate, obituary, prayer card or brochure from the funeral or memorial service.
- Mitigating circumstances. Appropriate support documentation may be required.

Each appeal is reviewed on its own merit.

Appeal forms are available at www.uhcl.edu/costs-aid/forms-resources and must contain the following:

- Why the GPA is below the minimum requirement and how the student plans to bring the GPA up to the minimum requirement.
- Explanation of withdrawal from courses or the reason for not completing the courses.
- The number of courses or credit hours remaining for the student to complete the degree.

Academic plan forms are available at www.uhcl.edu/costs-aid/forms-resources. These forms must be completed with an academic adviser. Students should contribute to the academic plan to ensure success.

Deadlines: Appeal forms and academic plans must be submitted to the Office of Student Financial Aid by the census date each semester. (Appeals received after this date may be reviewed at the discretion of the SAP Committee.) Appeals must be approved before the close of the semester in order for your aid to be resintatated for that semester.

A copy of the student's Candidate Plan of Study must be submitted with the appeal. Incomplete appeals and academic plans will not be considered. The SAP Committee will review all appeals at least twice per month. All decisions reached by the SAP Committee are final. Students will be notified via their UHCL email regarding the outcome of their appeal.

Students whose SAP appeals are approved will receive financial aid for one semester on a probationary basis. At the end of that semester, students who are meeting the three criteria for SAP or are following the terms of the academic plan will not have to appeal. Students who are not meeting SAP will be notified via their UHCL email and they may submit another SAP appeal to the Office of Student Financial Aid.

Financial Aid Policy for Students Withdrawing from the University

Per federal regulations students who receive financial aid and completely withdraw from the university must repay all or part of their financial aid according to the policy explained below.

Financial aid recipients of federal student aid who withdraw on or before the 60% point in time of the semester enrolled will have the percentage and amount of Title IV unearned assistance calculated by the university. The unearned funds must be returned to the Title IV programs. The federal formula used to determine the less than 60% portion of enrollment requires that the number of calendar days in the period of enrollment for which the assistance is awarded be divided into the number of calendar days completed in that period as of the day the student withdrew. The Office of Student Financial Aid will then determine the amount of money to be returned.

A student who obtains all F grades or a combination of withdrawals and F grades will be considered an unofficial withdrawal. The Office of Student Financial Aid will use the date of last attendance input by the professor on the grade roster as the date of withdrawal for the term. If the date of withdrawal is on or before the 60% point in time of the semester enrolled, the student will have the percentage and amount of Title IV unearned assistance calculated by the university. The Office of Student Financial Aid will then determine the amount of money to be returned. Aid may also be adjusted or canceled if student never attended the course.

While rare, some students may be eligible for a post-withdrawal disbursement. The Office of Student Financial Aid will contact these students. Students should carefully read the deadlines given to be eligible for the disbursement.

Federal Refund Distribution Priority

Refunds will be applied to the funds received by the student in the following priority:

- Federal Direct Loan Program (DL) – Unsubsidized Stafford Loan
- Federal Direct Loan Program (DL) – Subsidized Stafford Loan
- Federal Direct Loan Program (DL) – PLUS Loan

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal TEACH Grant
- Other Title IV programs

Dropping From a Class but Retaining Half-Time Status

Financial aid awards are based on full-time status. Students can request a package based on enrollment less than full time. Students who change their enrollment status prior to census day will have their awards reevaluated based on their actual enrollment. Students who received funds based on the original enrollment status may be required to make repayment of the appropriate funds.

Students enrolled in 8-week sessions during the Fall and Spring terms must be enrolled in those courses by the census date of the long semester to be counted toward their enrollment for some forms of financial aid.

Students who reduce their course load after census day but remain enrolled at UHCL at least half time will not have their financial aid adjusted and will not owe a refund. However, dropped courses are considered in the ratio calculation used to determine satisfactory academic progress. Students must also complete the remaining enrolled courses successfully or a return may occur.

College Work Study

Students awarded a college work-study (CWS) job as part of their financial aid package work on or off campus for up to 20 hours per week and are paid on a biweekly basis. Students who are awarded CWS can apply for jobs at through Career Services.

Exit Interview

When Stafford Federal Direct loan or Perkins loan recipients complete a degree or drop below half-time, federal statutes require those students to have an exit interview to clarify and establish a repayment schedule on any monies owed. Students' academic records may be encumbered if the student borrower does not complete an exit interview.

Stafford exit interviews are completed online at <http://studentloans.gov>. Perkins exit interviews may be scheduled through Student Business Services.

State Waivers and Exemptions

The Office of Student Financial Aid coordinates the application for several state waivers and exemptions listed below. Students can find detailed information for each waiver and exemption at: www.collegeforalltexas.com

- Research Assistants and Teaching Assistants Waiver
- Competitive Scholarship Waiver
- Good Neighbor Scholarship Program
- Waiver for College Faculty and their Dependents
- Adopted Students Formerly in Foster or Other Residential Care
- Exemption for Students under Conservatorship of the Dept. of Family and Protective Services
- Educational Aide Exemption
- Blind/Deaf Student Exemption Program
- Exemption for Highest Ranking High School Graduate
- Exemption Program for Children of Professional Nursing Program Faculty and Staff
- Exemption Program for Clinical Preceptors and their Children
- Firefighter Tuition and Laboratory Fee Exemption Program

Exemptions allow special groups of Texas residents or nonresidents to enroll and pay a reduced amount of tuition and fees. Waivers allow special groups of nonresidents to enroll and pay a reduced nonresidents tuition rate.

Unless noted otherwise, all applications for waivers and exemptions must be submitted to the Office of Student Financial Aid by the census date for which the waiver/exemption would be applied. All applications after the census date will be reviewed on an individual basis and may be denied.

Senate Bill 1210 (83rd Texas Legislature, passed into law in 2013) adds a **Grade Point Average** requirement for persons to receive continuation awards on certain waivers/exemptions listed above. The law also establishes a limit to the total number of hours, cumulative, that a student may take and continue to receive awards. Please refer to www.collegeforalltexas.com or www.uhcl.edu/costs-aid for more information.

Scholarships

The Office of Student Financial Aid is committed to awarding scholarships to students consistent with the educational mission of our university. UHCL offers Automatic Transfer Scholarships, Hawk Scholars Scholarship, Hawk Advantage Scholarship and New Hawk Scholarships to new undergraduate students who meet certain GPA requirements. Additionally, UHCL offers scholarship opportunities to other new students and to continuing students. For additional information, please visit www.uhcl.edu/scholarships.

New Hawk Scholarship

Eligibility

- Top 15% of high school class, or
- 1170 SAT score (or 1100 if using the old SAT score), or
- 24 ACT; and

- Texas resident, and
- Graduate high school in the 2020–2021 class.

Amounts

- Award amounts will range from "full-ride" (tuition, fees, housing, university required meal plan, and books) to \$1,000 per year.

Renewal Eligibility

New Hawk Scholarship can be renewed for an additional 3 years. Students must maintain a cumulative 3.0 GPA and complete 24 hours in an academic year for this scholarship to be renewed.

The application process will begin in September 2020. Applications will be due by Feb. 1, 2021. Interested students should monitor www.uhcl.edu/finaid for additional instructions.

Note: This will be a highly competitive scholarship. Not everyone who applies for the scholarship will receive the scholarship.

Hawk Advantage Scholarship

Eligibility

- Texas resident, and
- Graduated high school in the 2020–2021 class, and
- Complete the 2021–2022 Free Application for Federal Student Aid (FAFSA)–completed online at www.fafsa.gov by Jan. 15, 2021, and determined to have unmet need; or
- Complete the 2021–2022 Texas Application for State Financial Aid (TASFA), if eligible, by Jan. 15, 2021 and be determined to have unmet need, and
- Be admitted unconditionally to UHCL for the fall 2021 term, and
- Attend UHCL for at least 12 hours per semester each fall and spring term. Student must be enrolled in at least 12 hours at the census date each term.

Amounts

- Award amounts up to \$2,500/year. Renewable for an additional three years of your undergraduate program. **Total Commitment up to \$10,000 (if renewal criteria is met).**

Renewal Eligibility

Hawk Advantage Scholarship can be renewed for an additional three years. Students must maintain a cumulative GPA of at least 2.5; remain in good academic standing; show need based by renewing their FAFSA or TASFA application by the priority deadline each year; and must complete at least 24 hours at UHCL an academic year for this scholarship to be renewed.

The application process will begin in September 2020. Applications will be accepted until all awards are made. Interested students should monitor www.uhcl.edu/finaid for additional instructions.

Note: Scholarships are based on unmet need. Not all students who apply will be awarded a scholarship.

Automatic Transfer Scholarship

Eligibility

- New, first-time degree-seeking undergraduate student.
- Transferring from another Texas college or university.
- Have a transfer grade point average of 2.75 or higher (as computed by the Office of Admissions from official transcripts).
- Enroll in 12 hours or more at UHCL. Student must enroll in at least 12 hours each semester and through the census date.
- No application needed.

Amounts

- \$1,500 for the year (\$750 each long semester) will be awarded if the transfer GPA is 2.75 or higher.

Renewal Eligibility for the Second Year

- Received the scholarship in their first year.
- Maintained consecutive enrollment in the first two long semesters at UHCL.
- Earned a minimum of 24 semester hours of academic credit at UHCL before the start of the third long semester.
- Maintained a cumulative UHCL GPA no lower than 2.75.
- Enrolled in twelve or more hours at UHCL in the third consecutive long semester.

Note: ATS is a non-competitive scholarship. Scholarship recipients are not entitled to a waiver of non-resident tuition and fees.

Full-Time to Finish Scholarship

Eligibility

- New, first-time degree-seeking undergraduate student
- Domestic students only
- New students admitted for summer/fall/spring to one of the following programs:
 - Accounting
 - RN-BSN
 - Mechanical Engineering
 - EC-6 Bilingual

- Enroll in 15 hours or more at UHCL. Student must enroll in at least 15 hours each semester through the census date.
- No application needed.

Amounts

- \$1,000 for the year (\$500 each long semester) will be awarded (no summer awards).

Renewal Eligibility

- Can be renewed for up to three additional years
- Student must successfully complete 15 hours every semester and continue to enroll in 15 hours each semester, not including summer.
- Student must maintain academic good standing each semester.
- Student must remain in program or their scholarship will be forfeited.

Mechanical Engineering Scholarship

Eligibility

- Minimum high school GPA 3.25; or
- Top 25% of graduating high school class; or
- Minimum ACT score of 24; or
- Minimum SAT of 1170; and,
- Be graduating from high school in the 2020–2021 academic year
- Must enroll (and remain enrolled through census) in at least 15 hours each semester.

Amounts

- \$1,500 for the year (\$750 each long semester) will be awarded. Non-Resident and international student will be eligible for the competitive scholarship waiver.

Renewal Eligibility for the Second Year

- Maintain a 3.0 cumulative UHCL GPA; and,
- Complete 30 credit hours at UHCL each academic year (fall, spring, summer)

Mechanical Engineering Summer Math Scholarship

Eligibility

- Must be admitted into the Mechanical Engineering Program as a new, incoming freshman for fall 2021

- Register for one of the following classes by **June 1, 2021**
 - MATH 1314 College Algebra
 - MATH 2412 Pre-calculus
 - MATH 2413 Calculus I
 - MATH 2414 Calculus II
 - MATH 2315 Calculus III
 - MATH 2318 Linear Algebra
 - MATH 2320 Ordinary Differential Equations
- Student must remain enrolled through census date of the session in which they are enrolled.

Amounts

- Award Amount: \$500 one-time automatic award (students do not need to apply)

Enrollment Status

The amount of financial aid a student can receive is dependent upon the number of hours in which the student is enrolled. The following are enrollment statuses for undergraduate students based on the number of hours the student is enrolled:

Enrollment Status	Credit Hours
Full-time enrollment	12 hours or more
Three-quarter-time enrollment	9 hours to 11 hours
Half-time enrollment	6 hours to 8 hours
Less than half-time enrollment	5 hours or less

For fall, spring and summer terms, all hours are added together between sessions within each term to arrive at the total number of hours for the term. Winter session is included as part of the spring term.

Students enrolled less than half time will not be eligible for student loans.

Students are responsible for notifying the Office of Student Financial Aid if their enrollment changes.

Students may not repeat a previously passed course more than once for financial aid purposes. For example, a student completes a course with a D. The student repeats the course in a subsequent semester. Regardless of the grade in the second attempt, the student may not repeat the course and receive financial aid for the course for a third attempt. Even if the student earns an F in the second repeat, financial aid will not cover a third attempt at the course. However, if the student earns an F in the first and second attempt of the course, financial aid will cover the third attempt of the course. (Note:

Satisfactory academic progress requirements may prevent the student from being eligible for financial aid to complete subsequent attempts.)

General Program Requirements

Student Responsibility

Students are responsible for knowing all degree requirements and enrolling in courses appropriate for their chosen degree programs. Students also are responsible for knowing all university regulations regarding student affairs and course work standards required for study undertaken in the university. While this catalog was prepared on the basis of the best information available at the time, all information including statements of fees, course offerings, admissions and graduation requirements is subject to change without notice or obligation. The most recent information regarding degree requirements and academic standards may be obtained from the appropriate dean's office. Student affairs information may be obtained by contacting the Office of the Dean of Students, or by contacting the individual student services offices.

Classification of Students

Effective fall 2018

Classification	Hours Completed
Freshman	1-29 hours completed
Sophomore	30-53 hours completed
Junior	54-89 hours completed
Senior	90 hours or more completed but not graduated

Post-baccalaureate students have previously earned bachelor's degrees and are enrolled in undergraduate course work at UHCL. These students are considered as undergraduate students for all academic purposes and are not eligible to enroll in graduate courses except under the provisions outlined for undergraduate enrollment at the graduate level.

Classification is determined by the Office of the Registrar. Only hours earned at UHCL and hours accepted in transfer from other institutions will count toward the student's classification.

Degrees Offered

University of Houston–Clear Lake (UHCL) is authorized by the Texas Higher Education Coordinating Board to confer six degrees in 47 undergraduate majors.

Undergraduate Degrees Conferred

- Bachelor of Applied Science (B.A.S.)
- Bachelor of Arts (B.A.)
- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Science (B.S.)
- Bachelor of Science in Nursing (B.S.N.)
- Bachelor of Social Work (B.S.W.)

Undergraduate Plans Offered

College of Business

- Accounting B.S.
- Environmental Management B.S.
- Finance B.S.
- General Business B.S.
- Healthcare Administration B.S.
- Healthcare Services B.A.S.
- Legal Studies B.S.
- Management B.S.
- Management Information Systems B.S.
- Marketing B.S.
- Professional Accounting B.S.

College of Education

- Addictions Counseling B.S.
- Early Childhood Care and Education B.S.
- Interdisciplinary Studies B.A.S. with a major in Early Childhood Education – Educator of Young Children.

- Interdisciplinary Studies B.S.
 - Core Subjects EC-6 Certification (Early Childhood Concentration).
 - Core Subjects EC-6 Certification (Reading Concentration).
 - Core Subjects EC-6 with Bilingual Supplemental Certification.
 - Core Subjects EC-6 with EC-12 Special Education Certification (All Level).
 - Core Subjects EC-6 with ESL Supplemental Certification.
 - Core Subjects 4-8 Certification.
 - Core Subjects 4-8 with ESL Supplemental Certification.
 - Science 4-8 Certification.
 - Social Studies 4-8 Certification.

College of Human Sciences and Humanities

- Anthropology B.S.
- Art and Design B.F.A.
- Behavioral Sciences B.S.
- Communication B.A.
- Criminal Justice and Criminology B.S.
- Fitness and Human Performance B.S.
- Geography B.S.GEOG
- History B.A.
- Humanities B.A.
- Literature B.A.
- Nursing B.S.N.
- Psychology B.S.
- Public Service Leadership B.S.
- Social Work B.S.W.
- Sociology B.S.

College of Science and Engineering

- Biological Sciences B.A., B.S.
- Chemistry B.A., B.S.
- Computer Engineering B.S.
- Computer Information Systems Science B.S.
- Computer Science B.S.
- Environmental Science B.S.
- Information Technology B.S., B.A.S.
- Mathematical Sciences B.A., B.S.
- Mechanical Engineering B.S.
- Occupational Safety and Health B.S.
- Physics B.S.

- Pre-Engineering Transfer Track.

Enrollment Policies

In conjunction with academic performance standards, the policies listed below are utilized by the university in monitoring the academic progress of students.

Course Load

Students should be aware that academic work will be at advanced levels and should consider individual abilities when determining an appropriate course load. Course load limits may be set as terms of probation or readmission to the university after suspension. The university limits course loads to a maximum of 19 hours during the fall and spring semesters. For the summer semester, the limit is 12 hours.

In evaluating their ability to carry a certain course load, students should consider:

- Time available for class preparation.
- Whether an excessive load might endanger academic standing.
- Physical and mental stamina.
- Financial factors of commuting costs, tuition, fees and personal budget.

Under the Department of Homeland Security (DHS) regulations, international students are required to maintain full-time enrollment during each fall and spring semester. In addition, no more than three credit hours per semester taken online may be counted toward full-time enrollment for F and J student visa holders.

Full-Time/Part-Time Status Course Load

A student's enrollment status is determined by the number of credit hours for which the student is enrolled at UHCL each semester. Enrollment statuses are listed below:

Enrollment Status	Credit Hours
Full-Time Enrollment	12 hours or more
Three-Quarter Time Enrollment	9 hours to 11 hours
Half-Time Enrollment	6 hours to 8 hours
Less Than Half-Time Enrollment	5 hours or less

For the summer term, all hours are added together between sessions to arrive at the total number of hours for the summer.

When enrolled in a cooperative education course, students will be considered full time for purposes of enrollment verification. The above hours requirement may differ for financial aid purposes. Please review the section of the catalog on Financial Aid or contact the Office of Financial Aid.

Resident Credit

Resident credit is defined in two ways:

- Credit awarded for successful completion of academic work undertaken at UHCL.

or

- Credit awarded for successful completion of academic work undertaken at another college or university provided that
 - Students are candidates for degrees at UHCL, and
 - Students have written approval of their faculty adviser and their appropriate associate dean before undertaking academic work elsewhere.

Students should be aware that credits earned elsewhere without prior approval from UHCL are not considered credits "earned in residence" for the purpose of fulfilling general degree requirements.

Class Attendance

Regular class attendance is expected of all students. What constitutes an acceptable rate of class attendance is a matter between students and their instructors, although the university expects instructors to maintain reasonable standards. Whenever instructors determine that students' absences have been excessive, they have the right to request that the appropriate associate dean withdraw the students from the course.

Dropping or Withdrawing from Classes

Drop/Withdrawal Time Frame

Students may drop one or all classes without a grade penalty through the census date of the semester or session. Classes that are dropped through the census date will not be posted on a student's official or unofficial transcript. Students may drop classes online through their E-Services account. Please see the Academic Calendar at www.uhcl.edu/registrar for the census dates of the semester or session.

Students who drop a class or withdraw from all classes after the census date of the semester or session, but no later than the withdrawal deadline as stated in the Academic Calendar will receive one of the following grades: WQ (Student-initiated drop, No Evaluation) or WX (Administrative Drop or Withdrawal, No Evaluation). These grades imply no evaluation of students' performance prior to the withdrawal. Students may retain auditing privileges with the instructor's consent.

Student-Initiated Withdrawals

Once students have registered and paid tuition/fees for the course section, they are considered enrolled in the course(s) until they have officially dropped/withdrawn or received a grade. Nonattendance does not automatically terminate students' enrollment in the course(s) and does not exempt them from any academic or financial responsibilities. Students who stop attending class without officially dropping/withdrawing from the course(s) will receive a final grade based on coursework completed.

If a student wishes to drop any or all of their classes, they are responsible for doing so online through E-Services by the deadlines stated in the Academic Calendar. Withdrawal requests in writing can also be made by mail or by fax to 281-283-2530 and are effective on the date of receipt. Please contact the Office of the Registrar for additional assistance at registrar@uhcl.edu. The student assumes responsibility for written requests for drops/withdrawals that are delayed or not delivered. Drops/Withdrawal requests received after the deadlines stated in the Academic Calendar will not be processed. Student-initiated drops and withdrawals are irrevocable. Retroactive drops or withdrawals are not permitted. Students lose all university privileges on the date the withdrawal from the university is effective.

Course(s) dropped through the published Census Day will not appear on the transcript. Course(s) dropped after the Census Day and through the published withdrawal deadline will appear on the student's transcript with a grade of WQ. Census Day and withdrawal deadlines are published online in the Academic Calendar.

All outstanding bills and university obligations must be paid/fulfilled. This includes any payment plans or loan agreements issued by Student Business Services. Contact Student Business Services for additional information. Students receiving financial aid are advised to contact the Office of Financial Aid prior to making changes in their enrollment status. Reducing semester hours to zero is considered a withdrawal and the Refund Schedule will be followed. Please refer to the Refund Schedule on the Student Business Services' website for information about deadlines.

Administrative Withdrawals

The university reserves the right to withdraw students from a class or all classes if, in the judgment of the appropriate university officials, such withdrawals are in the best interests of the students and the university. Students may be withdrawn for reasons of health, irresponsible financial conduct, unacceptable personal conduct, Honesty Code violations or other academic infractions, or disregard of official summonses to respond to official requests.

Students who are requesting a current semester medical withdrawal must submit a Student Appeal form to the Office of the Registrar before the end of the current semester if they cannot withdraw themselves by the withdrawal deadline. Please refer to the academic calendar for more information regarding deadlines. A medical withdrawal formally drops all courses in a term.

Written appeal for a medical withdrawal should address each of the following:

1. Describe the medical condition/circumstances that required you to withdraw from the university.
 2. Explain in detail how/why the medical condition/circumstances prevented you from completing the academic term.
 3. Detail the dates of the onset of your medical condition/circumstances, along with the dates of any treatment you received, if appropriate.
 4. If you stopped attending classes, explain why and when. (Please note: Nonattendance does not exempt you from academic and financial responsibilities).
 5. If you did not utilize the regular withdrawal process, explain why not.
 6. Explain what relief you are seeking from this request. Be as specific as possible.
- Note: Medical withdrawals do not refund tuition and fees.

Supporting Documentation

You must include a letter from your health care provider(s) or other pertinent sources. The documentation should be on clinic letterhead and should address the following:

- Describe the diagnosed medical or psychological condition or circumstances, and indicate when treatment commenced.
- Explain how the severity of the condition completely prevents the student from attending classes and completing the semester.
- Address potential health/clinical consequences if a medical withdrawal is not granted.

Review Process

1. Submit all materials to the Office of the Registrar. Any missing or incomplete information may delay consideration of your request.
2. After the materials are received, your request will be evaluated by the Office of the Registrar and you will be notified when it has been approved or denied. You may be asked to provide additional information to assist the university in its evaluation of your request. The decision of the Office of the Registrar is final.
3. Please note that a Medical Withdrawal is granted in rare instances where a student is faced with a serious and unexpected condition that completely precludes him/her from being able to function as a student. If a request is approved, the student may be required to submit documentation from a health care provider to indicate his/her ability to function successfully prior to subsequent enrollment. Additional requests for a medical withdrawal are normally not granted for the same circumstances.
4. Withdrawal appeals should be submitted to the Office of the Registrar prior to the close of the following long semester. Appeals submitted after one long semester will not be considered.

IMPORTANT NOTES:

- International students, students with a disability, and students who are receiving financial aid, veterans and/or other benefits and who are considering withdrawing from the university must meet with the appropriate official (e.g., international student adviser, staff from Disability Services, financial aid counselor, or veterans services) before withdrawing since there may be legal, certification, and/or repayment penalties associated with doing so.
- Medical withdrawal typically results in withdrawal from all classes. Students who are considering the medical withdrawal process and wish to drop some, but not all, of their classes for a term should instead contact the their academic associate dean's office for information about administrative drops.
- Student Loans: Students who have borrowed from the Perkins or Direct Loan programs are federally required to schedule an Exit Counseling session. Contact the Office of Financial Aid for additional information.
- All outstanding bills and university obligations must be paid/fulfilled. This includes any payment plans or loan agreements issued by Student Business Services. Contact Student Business Services for additional information.
- Medical withdrawals do not provide for a refund of tuition and fees.

6-Drop Rule

In 2007, Texas passed a law (S.B. 1231) which prohibits students enrolling for the first time as a freshman during the fall 2007 academic term or any term thereafter from dropping more than a total of six courses in their entire undergraduate career. This total includes any course a transfer student has dropped at another two-year or four-year Texas public college or university. This does not apply to courses dropped prior to the census date (See Academic Calendar at www.uhcl.edu/registrar) or to courses for which the students receives an administrative withdrawal noted with a grade of WX and does not apply if the student withdraws from the term or session.

Certain exceptions may be made to the limit if the student can show good cause for dropping more than 6 courses, including but not limited to a showing of:

- A severe illness or other debilitating condition that affects the student's ability to satisfactorily complete the course.
- The student's responsibility for the care of a sick, injured or needy person if the provision of that care affects the student's ability to satisfactorily complete the course.
- The death of a person who is considered to be a member of the student's family or who is otherwise considered to have a sufficiently close relationship to the student that the person's death is considered to be a showing of good cause.
- The active duty service as a member of the Texas National Guard or the armed forces of the United States of either the student or a person who is considered to be a member of the student's family or

who is otherwise considered to have a sufficiently close relationship to the student that the person's active military service is considered to be a showing of good cause.

- The change of the student's work schedule that is beyond the control of the student and that affects the student's ability to satisfactorily complete the course.

Students requesting an exemption must complete the 6-Drop Exemption Form and submit it to the Office of the Registrar along with supporting documents and evidence of extenuating circumstances. The grade of WX will be assigned to courses for which students receive an exemption and will not count against the 6-Drop Rule.

Drops that Count toward the 6-Drop Limit

The 6-Drop limit applies only to students enrolling for the first time as a freshman during the fall 2007 academic term or any term thereafter at a public college or university in Texas, including UHCL. Drops that count towards the limit are those for which a student receives a grade of WQ on his/her UHCL transcript as well as any equivalent drops reported on that student's transcript(s) from other Texas public colleges and universities. If a student started college fall 2007 or thereafter, and then transferred to UHCL from an affected Texas public college or university with six drops that are equivalent of WQ, the student may not drop any additional course at UHCL after the census date for the term. If the student transfers with fewer than six drops, the student may drop the remainder of the allowed courses at UHCL.

Awarding of Grades once the 6-Drop Limit has been Reached

Once UHCL determines that a student has accrued a total of six drops on courses attempted at any Texas public colleges and universities, including UHCL, it will not allow that student to drop any additional course at the University. Once enrolled for a course, the students with six drops can only be awarded A, B, C, D or F grade by their instructor.

6-Drop Appeals Process

Any student who wants to appeal the initial decision to deny an exemption to the 6-Drop limit may appeal to the Office of the Associate Vice President for Enrollment Management for further review. Such appeals must be submitted in writing before the final grades for the course are posted by the instructor.

Students appealing the initial decision can only do so for one of the following reasons:

- To determine whether the process leading to original decision was fair.
- To determine whether the decision reached regarding the request was based on substantive evidence.

The decision of the associate vice president for enrollment management will be final.

Excessive Hours

Texas Education Code 54.014 specifies that undergraduate students who enrolled for the first time in fall 1999 or later may be subject to a higher tuition rate if they attempt excess hours at any Texas public institution of higher education. This policy applies to students classified as Texas residents and Non-Texas residents, who have received a tuition waiver and pay resident tuition. Students who were first-time freshmen between fall 1999 and summer 2006 are limited to 45 semester credit hours in excess of the credit hours required to complete their degree plan. Students who were first-time freshmen beginning fall 2006 or subsequent terms are limited to 30 semester credit hours in excess of the credit hours required to complete their degree plan. If a student has been enrolled as an undergraduate student in any public or private institution of higher education during any term prior to the 1999 fall semester, the student's credit hours are exempt. Semester credit hours generated by non-resident students paying tuition at the rate provided for Texas residents are subject to the same limitations as hours generated by resident students. Students who are in violation of the limitations set by this law will be subject to the Tuition Recovery Fee of \$130 per credit hour to cover the student's educational costs. For more information contact the Office of the Registrar.

According to the Texas Higher Education Coordinating Board Rules, the following types of credit hours count toward the limit:

- Hours dropped after the 12th class day, reflected in transcripts with a WQ/WX.
- Hours earned with a failing grade.
- Hours earned for courses that do not apply towards the chosen degree plan.
- Hours successfully completed which do apply toward the chosen degree plan.

The following types of credit hours do not count toward the limit:

- Credit hours earned after completing a baccalaureate degree.
- Credit hours earned through examination (AP or CLEP).
- Credit hours earned through remedial and developmental courses.
- Credit hours taken at a private or an out-of-state institution.
- Credit hours earned before graduating from high school and used to satisfy high school graduation requirements.
- Credit hours excluded from the academic record under the Academic Fresh Start program.

Three-peat Rule for Undergraduates

In accordance with Texas Education Code Section 13.105 as of fall 2002 undergraduate, Texas-resident students and students paying resident tuition attempting the same course for a third (or subsequent) time will be subject to the Three-peat Fee for Undergraduate Hours.

"Attempted" hours are defined as all hours for which the student is enrolled as of the official Census date for the semester or session, regardless of whether the student withdraws from one or all classes after the Census date. Please see the Academic Calendar for the Census date for each semester and/or session.

The following courses may not be counted toward the Three-peat Rule for undergraduates:

- Independent Study Courses
- Special Topics Courses with Differing Content

Undergraduate Enrollment in Graduate Courses

Seniors who are degree-seeking students at UHCL and who wish to take graduate courses may qualify and enroll in them subject to these conditions:

- Students must be enrolled in their last six hours of undergraduate work.
- Students must have a cumulative UHCL GPA of at least 3.000.
- Approval of enrollment arrangement must be given by the associate dean of the college in which the student will pursue graduate course work.
- If the courses are used to fulfill undergraduate degree requirements, they may not be used to fulfill subsequent graduate degree requirements.

Undergraduate courses are defined as those courses with course numbers in the 1000, 2000, 3000 and 4000 range. Graduate courses taken as an undergraduate will only calculate in the undergraduate hours earned and in the undergraduate GPA. Post-baccalaureate non-degree-seeking students are not eligible to enroll in graduate courses. This doesn't apply to dual-degree students.

Dual Degrees: Bachelor's to Master's

The dual Bachelor's/Master's programs allow students to earn both degrees in five years. Students begin work on their Master's degree during the final year of their Bachelor's degree.

1. Bachelor's (minimum 120 hours) to master's (minimum 30 hours) degrees provides students the opportunity to earn degrees at an accelerated pace. In this program undergraduates with 90 or more credit hours may be allowed to enroll in graduate classes and count up to six graduate credit hours toward their bachelor's degree. The same six graduate credit hours may also count toward a master's degree.
2. Graduate courses utilized for a Bachelor's degree cannot be utilized for a graduate degree outside of the accelerated Bachelor's to Master's degree program.
3. No more than six graduate hours can be taken as an undergraduate.

4. In the dual-degree program no more than six hours of graduate work may be counted toward the requirements of both degrees and at least 24 of the required 30 graduate hours must be taken at the 5000 level or 6000 level.
5. Students must apply to the dual-degree program the semester before completing their bachelor's degree requirements.
6. Students interested in this program must meet with a dual degree adviser in their college before enrolling in graduate courses.
7. Students admitted to dual-degree programs should have an overall GPA of 3.0 or better. Students with a GPA of less than 3.0 must take the GRE or GMAT. (See individual college requirements for appropriate examination and for acceptable scores.)
8. A student who becomes ineligible to participate in or withdraws from the accelerated bachelor's to master's program cannot double count any courses for both bachelor's and master's degrees. However, courses successfully completed with a 3.0 or better may count toward the bachelor's degree as appropriate substitutions.
9. Students in dual-degree programs receive the bachelor's degree upon completion of the master's degree.
10. Students in dual-degree programs not completing the master's degree may apply for graduation with the bachelor's degree.
11. Dual-degree program students must complete the undergraduate residency requirements.

Final Exams

Final exams for the regular fall and spring terms must be scheduled the week following the last day of classes at the day/time indicated on the final exam schedule. Faculty teaching online courses during the regular fall and spring terms can schedule final exams anytime starting on the last day of classes until the end of the week following the last day of classes (the end of the regular exam week). During the summer sessions and fall/spring eight-week sessions, final exams are held on the last day of classes. Students and faculty should refer to the academic calendar and final exam schedule found online at www.uhcl.edu/registrar for additional information. Students with exam schedule conflicts must work with faculty to resolve conflicts.

Missed Examinations and Assignments

Students are expected to be present at all announced examinations, including final examinations. Unless satisfactory alternate arrangements are made with instructors, missed examinations will be considered as failed. Students who must be absent from classes for the observance of a religious holy day (as defined by the Texas Education Code) will be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. Students needing to reschedule an examination or assignment for a holy day should submit a letter of request or appropriate form to each instructor within 15 days from the first class day of the semester. An instructor should acknowledge receipt

where indicated on the form and return a copy to the student. A new date for taking an examination or completing an assignment missed for a holy day shall be set by the instructor. Should an instructor not honor the request for rescheduling examinations or assignments for holy days by setting reasonable new due dates, students may appeal the decision to their associate dean. The instructor or associate dean may require a letter of verification of the observed holy day from the religious institution.

Grading Policies

Grading System

Grade Points Per Semester Hour	Grade
4.000	A
3.667	A-
3.333	B+
3.000	B
2.667	B-
2.333	C+
2.000	C
1.667	C-
1.333	D+
1.000	D
0.667	D-
0.000	F

WQ* Student Initiated Drop, No Evaluation

WX* Withdrawal or Administrative Drop, No Evaluation

NG* No Grade Submitted, Contact Instructor

I* Incomplete-No Credit, unless work is not completed on time, then an F is given

CR** Credit

NC** No Credit

IP** In Progress-No Credit

*These grades are not included in computing the grade point average

+CR/NC awarded only for CLEP, master's option and TexES course work

**IP awarded for some undergraduate internships

Grade Point Average (GPA)

The grade point average is a measure of a student's academic achievement. Grade point averages are computed by multiplying the grade point earned by the number of credit hours in each course, and then dividing the sum of all grade points obtained by the total number of hours attempted.

The cumulative grade point average is based on the grade points earned since admission to UHCL excluding those hours for which grades are shown with asterisk (*) above. GPAs will round at three decimals. Grades earned for transferred courses are not calculated into grade point average at UHCL.

Incomplete Grade and Incomplete Grade Contract

A grade of Incomplete (I) may be given at the discretion of the instructor to students who are making satisfactory progress in a course. Incompletes are typically given for emergency situations which occur after the withdrawal date but prior to the end of the semester, and which prevent the student from completing course requirements. When assigning the grade of I, instructors provide students with an Incomplete Grade Contract that outlines the work to be accomplished before the Incomplete can be converted to a final grade and specifies a deadline date. This contract constitutes an agreement between instructors and students. A grade of I must be resolved within the time limit set by instructors; however, such limits may not be extended beyond the grade submission deadline for the next long semester following the semester in which the Incomplete was assigned. Failure to resolve an Incomplete will result in its conversion to a final grade of F on students' permanent records. An I can be converted to a final grade only. A statement denoting the lapse will appear on the transcript.

Students should not re-register for a course to complete a grade of I. Incomplete grade contracts are submitted to the appropriate associate dean's office.

Students on academic probation, who have outstanding I grades, will remain on probation until all incompletes are resolved. I grades are not calculated in the GPA. An Incomplete which has been changed to a grade or has been converted to an F will be recorded and academic action taken during the semester of the grade change.

In Progress Grade

Some undergraduate internships require a grade of In Progress until a final grade is earned. The IP grade will not automatically convert to F if not resolved within a specified time.

Grade Changes

Grade changes are allowed for only one of the following three reasons:

- Removal of an incomplete grade.
- Result of a formal grade appeal or hearing process.

- Correction of instructor error.
- Other than removing an incomplete, grades will not be changed on the basis of extra work submitted after final grades are assigned.

Only the course instructor may assign grades for students in a course. Grade changes may be made by the instructor or the associate dean in the absence of the instructor. After one long semester, a grade change submitted by an instructor must be approved by the associate dean for the program in which the course is taught. Grade changes must be filed in the Office of the Registrar within one year after the original grade is posted. Grade changes resulting from the completion of In Progress (IP) or Incomplete (I) work may only be initiated by the instructor of record or the associate dean. Academic action that results from a grade change will be taken during the semester of the grade change. The changed grade will be the final grade used to compute the GPA.

Repeated Courses

As of fall 2008, if students repeat a course, it is with the understanding that the last grade earned in the course is the one counted toward fulfillment of degree requirements and hours earned. Only the hours and grade points earned on the last attempt will be counted in the Grade Point Average (GPA) calculation and in determining academic standing. Any repeated courses where the final attempt was made prior to fall 2008 will be counted in the GPA calculation and in determining academic standing. With prior approval of the appropriate associate dean, students may repeat courses at another college or university to raise a grade, including F, earned at UHCL. However, the original grade earned at UHCL will remain a part of the academic record. Courses repeated at other institutions are treated as transfer credit. They will not be considered resident credit and will not be included in the UHCL GPA. Only grades earned on repeated courses taken at UHCL will be counted in the UHCL GPA. Note: While the last grade earned will be used to calculate GPA and Academic Standing for the most recent term, Academic Standing history will not change. In addition, some courses are repeatable for credit and repeating a course will not change the GPA. For example, each attempt of a Special Topics courses will count towards the GPA.

Grade Reports

Students can access their semester grades online at www.uhcl.edu/eservices. The student's password is required for this confidential access. Grades can also be obtained by requesting a transcript. Grade reports are not mailed.

Interim Grade Reports

To help undergraduate students monitor their academic performance, faculty members teaching 1000 and 2000 level courses will provide six-week progress grades for students with unsatisfactory performance. Six-week progress grades are provided in fall and spring semesters only. Interim grades are advisory grades and are not recorded on the student's permanent record.

Procedures for Entering Interim Grades

Faculty will report grades of D or F through E-Services. Interim grade rosters for 1000 and 2000 level courses will be available starting the Monday of the sixth week of class through Tuesday of the seventh week of class. The Office of the Registrar will notify faculty of the availability of interim grade rosters and the reporting deadlines each spring and fall semester. Students will be able to view interim grades in E-Services once the faculty deadline to enter grades has passed. Interim grade reports will be provided to academic advisers who will contact students experiencing difficulties.

Academic Appeals

Academic appeals include those appeals related to grades and academic programs or degree requirements. In all instances, the university expects that every attempt will be made initially to resolve such disputes informally through discussions by all relevant parties prior to initiating formal procedures.

Appeals of Academic Program or Degree Requirements

All appeals relating to specific program requirements (e.g., residency requirements, master's degree option decisions) require that students submit a written petition to the associate dean of the degree-granting college detailing the grounds for the appeal. The associate dean will respond in writing with a decision. The student may appeal this decision in writing to the dean within 15 working days of notification. The dean's decision is final.

Grade Appeals

All appeals relating to specific course grades require that students first seek a satisfactory solution with the instructor. If this is not possible or the instructor cannot be reached, the student must send a written statement detailing the grounds for the appeal to the associate dean of the college in which the grade was earned. This written request must be received by the associate dean within 45 days from the calendar date when grades are available as reported in the UHCL class schedule for that semester. The associate dean will then initiate the appropriate procedures to review the appeal. The student will be notified in writing of the decision. The student may appeal this decision in writing to the dean within 15 working days of notification. The dean's decision is final on all grade appeals.

Academic Standards

The university expects students to meet certain standards of academic performance in order to maintain good standing and degree candidacy. The academic performance standards stated in this catalog apply to all students regardless of the catalog under which they entered the university.

Academic Status

Undergraduate students must maintain a cumulative GPA of 2.000 or better in course work at UHCL. Each college may establish standards beyond the university's minimum cumulative GPA requirement. A minimum of 2.000 cumulative GPA is required to graduate. The last attempt of all course work taken as an undergraduate will be used in calculating the grade point average and determining academic status even when those courses are not counted toward degree requirements.

Academic Probation

Students whose cumulative GPA falls below 2.000 will be placed on academic probation. Students who are on academic probation must earn a minimum 2.000 semester GPA on course work each subsequent semester until the grade point deficiency is removed. Students will be removed from Academic Probation when their semester grade point average is 2.000 or higher and their cumulative grade point average is at or above 2.000. Only course work taken at UHCL will be applied toward the grade point deficiency. Students on academic probation, whose cumulative GPA meets minimum requirements, will remain on probation until all incompletes are resolved. Students who leave the university on academic probation will be readmitted on academic probation. Academic probation will be noted permanently on students' academic records.

Academic Probation Counseling

Undergraduate students placed on academic probation will be placed under mandatory academic counseling until such time that the student returns to good academic standing (cumulative GPA of 2.0).

The academic probation counseling program is a comprehensive program that requires the student to meet with the Student Success Center to evaluate the academic support needs of the individual. The Student Success Center, in collaboration with the student's academic adviser, will assist the student in developing an academic plan that guides the student's return to good academic standing.

Academic Suspension

Students who are on academic probation and earn less than a minimum 2.000 semester GPA will be suspended from the university. During academic suspension, students may not enroll, audit or visit classes at the university. Academic suspension will be noted permanently on students' academic records.

Reinstatement

Students who are suspended from the university for the first time may apply for reinstatement after one semester of non-enrollment. Students on suspension for the second time are eligible to apply for reinstatement after one year of non-enrollment. Students who have been suspended three times are suspended indefinitely. All academic suspensions are career specific (UGRD and GRAD). The suspension count is reset to zero for undergraduate students who pursue a UHCL graduate degree. Reinstatement following suspension is not automatic. Students who are eligible and seek reinstatement must submit to the associate dean of the college to which they wish to return a written petition justifying their readiness

to resume satisfactory academic work at the university. Students who are non-degree-seeking [major codes NONDEGRUG or NONDEGRPB] petition the Office of the Provost. At the time of application for reinstatement from academic suspension, students desiring to change their major from one college to another must submit a Request for Academic Record Change (ARC) form along with a petition for reinstatement to the associate dean of the college to which they wish to be admitted. Courses taken at another college or university while students are on suspension from UHCL may not fulfill UHCL upper-level degree requirements. Such courses may only be used with special permission from the associate dean. If a student has completed additional lower-level requirements during the suspension, it is advisable to include a transcript with the petition, in addition to having an official transcript sent to the Office of Admissions. Students petitioning for reinstatement over five years after their last term of attendance at UHCL must also resubmit official transcripts from universities and colleges previously attended. Records from previous institutions are destroyed after five years of academic inactivity.

Students who have not been enrolled for at least one year must file an admissions application with the Office of Admissions and meet the requirements for readmission of former students after reinstatement has been granted.

If students are allowed to enter the university after academic suspension, they enter on academic probation and will remain in that status until their cumulative GPA meets the minimum requirement of 2.000 for undergraduate students. A student who is reinstated must undergo mandatory advising and a registration hold will be placed on his/her record until such time that he/she returns to academic good standing. Disciplinary suspensions are not covered by this policy. For details of the UHCL disciplinary policy, see the Student Handbook.

Early Reinstatement from Suspension

Undergraduate students who feels that they had extenuating circumstances beyond their control which affected their academic performance may make a request for consideration for early reinstatement to the Associate Vice President for Academic Affairs. An early reinstatement request will be accepted and reviewed only if the student has followed the academic recovery plan developed in conjunction with the Student Success Center and the student's academic adviser while under mandatory academic probation counseling.

A written petition should address the circumstances that led to the student's academic difficulties, how the circumstances have changed and what additional steps the student intends to take to improve one's academic performance if one is readmitted. Attached to the request should be a copy of transcripts showing the student's academic history at other institutions that the student might have attended while under suspension. The student must also provide documentation that substantiates the extenuating circumstances referenced in the petition.

Early reinstatement is not automatic. The gravity of the circumstance and the student's academic history will be considered in making a determination on whether the petition should be granted.

Early reinstatement is granted only once during the student's undergraduate career. A student who, subsequent to one's early reinstatement is placed on academic suspension will have to follow the regular reinstatement policy and procedure applicable for their situation.

Early reinstatement decisions made by the Associate Vice President for Academic Affairs are final.

Dean's List

At the end of each semester, all undergraduate students who earn nine or more credit hours during a fall or spring semester (or six or more credit hours during a summer semester) will be considered for the Dean's List. To be named to the Dean's List, students must be in the top 10% of eligible students in their colleges, based on semester GPA. Students who receive any form of the grades of I, D, NG, NC, or F during the semester are not eligible for the Dean's List.

Academic Honesty Policy

Preamble and Code

Academic honesty is the cornerstone of the academic integrity of the university. It is the foundation upon which the student builds personal integrity and establishes a standard of personal behavior. The university can best function and accomplish its mission in an atmosphere of the highest ethical standards. The university expects and encourages all students to contribute to such an atmosphere by observing all accepted principles of academic honesty. This policy is designed to encourage honest behavior and is jointly administered by faculty and students.

HONESTY CODE: The Honesty Code is the university community's standard of honesty and is endorsed by all members of the University of Houston-Clear Lake academic community. It is an essential element of the university's academic credibility. It states:

I will be honest in all my academic activities and will not tolerate dishonesty.

Section I: Responsibilities

Joint Responsibility: Students and members of the faculty are jointly responsible for maintaining the academic integrity of the university by following the Academic Honesty Code and by refusing to participate in or tolerate scholastic dishonesty.

Student Responsibility: All students at the University of Houston-Clear Lake are expected to maintain complete honesty and integrity in all academic work attempted while enrolled at the university. This standard of conduct includes reporting incidents of alleged violation of the honesty policy to the instructor involved

or, if necessary, to the appropriate academic dean. Each student acknowledges, by the mere act of turning in work for a grade that he or she has honored the Academic Honesty Code.

Faculty Responsibility: Faculty are responsible for helping students comply with the Academic Honesty Policy by noting the Honest Code on the class syllabus. Instructors should help minimize student temptation to violate the code by enacting adequate security precautions in the preparation, handling and administering of graded work. Instructors are responsible for discussing incidents of alleged violation of the Honesty Code with the student involved, outlining authorized penalties for violation of the Honesty Code and notifying the student's academic dean of record and the Dean of Students when a determination has been made that a student has violated the Honesty Code, regardless of which type of academic sanction the instructor chooses to administer.

While all students are expected to maintain the highest standards of personal academic honesty, it is recognized that some students may not meet these standards. This policy is designated to address, in a uniform manner, cases of alleged violation of the Honesty Code.

Section II: Violations

Honesty Code Violations: Any conduct or activity by a student intended to earn or improve a grade or receive any form of credit by fraudulent or dishonest means is considered an Honesty Code violation. In addition, engaging in any conduct including the following examples which a reasonable person in the same or similar circumstances would recognize as academic dishonesty is considered a violation. Examples of violations of the Honesty Code include, but are not limited to, the following:

1. Acquiring information:
 - a. Acquiring information for any assigned work or examination from any source not authorized by the professor.
 - b. Working with another person or persons on any assignment or examination when not specifically permitted by the instructor.
 - c. Observing the work of other students during any examination.
 - d. Using, buying, selling, stealing, soliciting, copying or possessing, in whole or part, the contents of an unadministered examination.
 - e. Purchasing, or otherwise acquiring and submitting as one's own work, any research paper or other writing assignment prepared by others.
2. Providing information:
 - a. Providing answers for any assigned work or examination when not specifically authorized by the instructor to do so.
 - b. Informing any person or persons of the contents of any examination prior to the time the examination is given.

3. Plagiarism:
 - a. Incorporating the work or idea of another person into one's own work without acknowledging the source of that work or idea.
 - b. Attempting to receive credit for work performed by another person, including papers obtained in whole or part from individuals or other sources.
 - c. Copying copyrighted computer programs or data files belonging to someone else.
 - d. Conspiracy - agreeing with one or more persons to commit any act of academic dishonesty.
4. Fabrication of information:
 - a. Falsifying the results obtained from a research or laboratory experiment.
 - b. Presenting results of research or laboratory experiments without the research or laboratory experiments having been performed.
 - c. Substituting for another student to take an examination or to do any academic work for which academic credit will be received. Changing answers or grades after an academic work has been returned to the student and claiming instructor error.
 - d. Submitting work for credit or taking an examination and employing a technique specifically prohibited by the instructor in that course, even if such techniques would be acceptable in other courses.
5. Abuse of resource materials:
 - a. Mutilating, destroying, concealing, stealing or altering any materials provided to assist students in the completion of academic work, including library books, journals, computer files, microfilm and microfiche files, materials placed on reserve by the instructor or any such materials as the instructor may provide or assign.
 - b. Copying any data files or copyrighted computer program(s) for one's own personal use or the use of others.
 - c. Copying without permission of the owner, or mutilating or destroying any copyrighted media, printed or electronic (for example, film, video, music, graphics, art, photography or manuscript).
 - d. Failing to report to the instructor any incident in which a student witnesses an alleged violation of the Academic Honesty Code. Details regarding the Academic Honesty Enforcement Procedures, Resolutions, Sanctions and Academic Honesty Council can be found in the Student Handbook in hard copy and online at the UHCL website and in the Faculty Handbook online at the UHCL website. Further policies governing alteration or misuse of university documents or furnishing false information to university officials may also be found in the Student Handbook or online at the UHCL website.

Records

The Dean of Students shall retain a copy of all Honesty Code Violation Forms. If the sanction imposed is a final grade penalty, suspension or expulsion, the registrar's office is notified and a record of the notification is maintained in the registrar's office according to the prescribed operating procedures

of that office. If the student is found in violation of the Honesty Code and the penalty is anything except suspension or expulsion, the form does not become a part of the student's permanent record or transcript. Instead, it is retained by the dean of students. If the student is found in violation of the Honesty Code and the penalty is suspension or expulsion, the record becomes part of the student's permanent academic file and the notation of "Disciplinary Suspension" or "Disciplinary Expulsion" is placed on the transcript. In the case of suspension, the notation will be removed at the conclusion of the specific suspension period at the written request of the student. In the case of expulsion, the entry is noted permanently.

University Degree Requirements

University undergraduate degree requirements include lower-level, core curriculum and upper-level requirements.

Undergraduate Degree Requirements for Bachelor of Applied Science Degree

All candidates for a Bachelor of Applied Science degree at UHCL must meet certain minimum requirements. **Additional requirements may be imposed by the individual department or college.** Students should refer to the department or college section of this catalog for complete requirements and total number of hours prescribed for the specific major.

The following are the minimum requirements for a Bachelor of Applied Science degree:

1. Students must complete at least 120 semester credit hours. A minimum of 45 hours of the 120 semester hours must be advanced (3000–4000 level) course work according to the requirements of the respective major.
2. Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements section of this catalog).
3. Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - a. Six hours of U.S. History (three hours may be Texas History).
 - b. Six hours of Constitutions of the United States and Texas.
4. Students must complete at least 25% of the credit hours required for the degree (i.e., 30 semester credit hours for a 120 credit hour program) through instruction offered by UHCL to fulfill the Southern Association of Colleges and Schools (SACS) residency requirements.
5. Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.

6. Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework in the major in residence at UHCL.
Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of C or better on at least 30 hours of resident upper-level work. Grades of C- or below cannot be applied toward the 30 hours of resident upper-level work.

Undergraduate Degree Requirements for Bachelor of Science in Nursing

All candidates for a Bachelor of Science in Nursing degree at UHCL must meet certain minimum requirements. Students should refer to the department or college section of this catalog for complete requirements and total number of hours prescribed for the specific degree.

The following are the minimum requirements for a B.S.N. degree:

1. Student must complete an associate's degree in nursing or equivalent degree. Some of the credits earned as part of the A.D.N. will be applied toward the 120 semester credit hour requirement for the B.S.N. degree.
2. Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements section of this catalog).
3. Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - a. Six hours of U.S. History (three hours may be Texas History).
 - b. Six hours of Constitutions of the United States and Texas.
4. A minimum of 45 hours, including 30 upper-level hours in nursing, must be taken in residence.
5. Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of C or better on at least 30 hours of resident upper-level work. Grades of C- or below cannot be applied toward the 30 hours of resident upper-level work.

Undergraduate Degree Requirements for Bachelor of Art, Bachelor of Fine Arts, Bachelor of Science and Bachelor of Social Work Degrees

All candidates for a bachelor's degree at UHCL must meet certain minimum requirements. **Additional requirements may be imposed by the individual department or college.** Students should refer to the department or college section of this catalog for complete requirements and total number of hours prescribed for the specific major.

The following are the minimum requirements for a bachelor's degree:

1. Students must complete at least 120 semester credit hours. A minimum of 45 hours of the 120 semester hours must be advanced (3000-4000 level) course work according to the requirements of the respective major.

2. Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements section of this catalog).
3. Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - a. Six hours of U.S. History (three hours may be Texas History).
 - b. Six hours of Constitutions of the United States and Texas.
4. Students must demonstrate writing proficiency by completing nine hours of lower-level (1000-2000 level) and upper-level (3000-4000 level) English composition course credit with a minimum grade of C- or better. Some majors may require higher grades in English composition.
5. Students must complete at least 25% of the credit hours required for the degree (i.e., 30 semester credit hours for a 120 credit hour program) through instruction offered by UHCL to fulfill the Southern Association of Colleges and Schools (SACS) residency requirements.
6. Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
7. Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework in the major in residence at UHCL.
8. Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of C or better on at least 30 hours of resident upper-level work. Grades of C- or below cannot be applied toward the 30 hours of resident upper-level work.

Requirements for a Minor

Students may earn a minor by satisfying certain requirements.

The general requirements are as follows:

1. Students must complete a minimum of 15 semester hours in the minor field.
2. At least nine of the 15 semester hours must be 3000 level or higher.
3. At least six of the nine 3000 or higher semester hours must be taken in residence at UHCL.
4. Students must earn a 2.00 minimum cumulative grade point average on courses attempted in the minor at UHCL.

Minors may include additional requirements but will require no less than 15 semester hours of work in the minor field of study. The 15-hour limit excludes prerequisite courses.

Minors must be completed prior to graduation. Minor hours do not need to be completed within a student's primary program of study (typically 120 hours). Minor hours do not alter excess hour fee requirements.

Minors may be associated with a disciplinary program or may be interdisciplinary. Interdisciplinary minors will comprise a planned integration of two or more disciplines with program and college approval.

Not all programs offer minors, but those that do will provide academic advice for the students who seek minors in their areas.

Substitutions in a minor can be initiated by either the major- or minor-granting department, but must be approved by both departments.

Students should consult the requirements listed in the catalog.

A minor is displayed on the transcript after graduation but is not displayed on the diploma.

Time Limitation on Course Work Prior to Admission

Upper-level (3000–4000 level) credit earned more than seven years prior to the most current admission to undergraduate study at UHCL may not be counted unless approval is granted by the dean of the college. It is the prerogative of the department chair, in consultation with the faculty member responsible for the corresponding rubric to determine whether the courses meet current standards of the discipline; and, whether students can demonstrate sufficient retention of the previous content. The department chair will forward the recommendation to the dean of the college.

Additional Bachelor's Degrees

Students possessing a bachelor's degree from UHCL or another accredited institution may earn an additional bachelor's degree in a different major by satisfying the following:

- Fulfillment of UHCL's core curriculum requirements as previously noted. These requirements may be fulfilled through prior course work and/or additional current course work, advanced placement credit, correspondence credit or CLEP credit.
- Completion of an approved CPS subject to the following provisions:
 - Fulfillment of all requirements of the specific degree program.
 - Completion of a minimum of 30 hours of upper-level course work, which must be taken in residence.
- A cumulative GPA of 2.000 on course work completed at UHCL, and grades of C or better on at least 30 hours of resident upper-level course work. Grades of C- or below cannot be applied toward the 30 hours of resident upper-level work.

Students pursuing additional bachelor's degrees after the conferral of the first bachelor's degree will be classified as post-baccalaureate and considered as undergraduates for all purposes including standards for academic performance. Credits earned and applied toward any previously earned bachelor's degree will be reviewed by either the director, chair or coordinator of the program for applicability toward an additional bachelor's degree.

Double Degrees

Students pursuing a double degree must meet the requirements below. Students who want official university recognition for more than a double major must earn more than one bachelor's degree.

The degree objectives for double degree-seeking students can be different (e.g., B.A. and B.S.) or the same. The decision to seek double major or double degree should consider the combination of degrees and necessary hours for completion of major requirements.

- Student must officially declare and complete the degree requirements for both degrees. One degree will be referred to as the primary degree and the other will be referred to as the secondary degree. Students will be held to the catalog requirements in place at the time of declaration for each degree.
- Two separate degrees will be awarded.
- In order to complete a double degree, a student must earn a minimum of 30 additional advanced semester hours for the secondary degree; these 30 hours are in addition to the minimum total hours required for the primary degree.
- The primary degree should be the degree with the highest minimum total hour requirement.
- A minimum of 150 credit hours is needed for two degrees.
- Coursework that is required or may be counted by both degrees based on catalog requirements can be used towards both degrees.

Double Majors

Students may earn a baccalaureate degree with two majors (i.e., a double major) provided they meet all the following requirements:

- The baccalaureate degree must be the same for both majors (e.g., B.A., B.S.). Students must select a primary major and a secondary major. The college of the primary major will issue the university diploma.
- Students who pursue a double major between a College of Business program and another UHCL program outside of the College of Business must select the business major as their primary major and reside in the College of Business as the department of record.
- Students must satisfy the college and major degree requirements for their primary major that were in effect at the time they were admitted into the primary major and those for their second major in effect at the time they were admitted into the second major.
- Students may not add a second major to a baccalaureate degree they have already received.
- Students must meet minimum grade requirements required by the respective college for each major.

- Students must complete a minimum of 12 semester hours of advanced work in residence in each major.
- Coursework that is required or counted by both majors based on catalog requirements can be used towards both majors. Courses required by both majors will count towards both majors in content and hours.

The University of Houston-Clear Lake does not recognize more than two majors for a single baccalaureate degree. Students who want official university recognition for more than a double major must earn more than one baccalaureate degree.

Students pursuing a double major who complete all degree requirements for one major but not the other may graduate by dropping the incomplete major, and graduating with only the single completed major.

Core Curriculum Requirements

For more information regarding Texas Core Curriculum Requirements, please visit: <https://catalog.uhcl.edu/current/undergraduate/undergraduate-information/core-curriculum-requirements>

Graduation under a Particular Catalog

Degree-seeking students should file Candidate Plan of Study (CPS), normally in the first semester of enrollment. Graduation requirements will be those of the UHCL Catalog in effect when the CPS is signed and dated by the appropriate dean's office and will be effective on that date.

Students transferring within a year directly to UHCL from a Texas public community college may petition the college's associate dean to have the initial CPS use the degree requirements of the catalog in effect when the students began the last period of continuous enrollment at the community college or a subsequent catalog. The effective date of the CPS will be either the date the students began the last period of continuous enrollment at a college prior to transferring to UHCL or Jan. 1 of the academic year of the catalog used.

If students maintain continuous enrollment, they are entitled to graduate under the degree provisions on the CPS. Failure to enroll in and satisfactorily complete at least one course in a 12-month period shall break students' continuous enrollment for the purpose of the CPS. The associate dean may require revision of the CPS of students who have not maintained continuous enrollment. The revision may bring the plan into conformance with provisions of any catalog issued after the effective date of the plan. Students may, with the approval of their adviser and associate dean, amend their CPS to comply with the provisions of catalogs issued after the effective date of a previously filed CPS. When degree requirements change because of changes in standards set by regulatory authorities, licensing authorities or accrediting

agencies, CPSs for all students in affected programs may be revised. In such cases, the university will seek to alter the CPS only to the extent required to meet the new standards.

Degree requirements must be completed within seven years from the effective date of the CPS. Exceptions may be granted by the appropriate dean. Undergraduate students exceeding the time limit will automatically come under the provisions of a more recent catalog, the specific edition to be determined by the appropriate dean's office.

Applying for Graduation

Degrees are not awarded automatically upon completion of degree requirements. To be considered a candidate for graduation, the student must submit an online application for graduation via their student E-Services account. Degree candidates must officially apply for graduation within the first three weeks of the semester in which they plan to graduate, but no later than the date specified in the Academic Calendar. Please refer to the Academic Calendar for online graduation application dates and deadlines to avoid additional late fee charges. To be eligible to apply for graduation, students must have completed or be enrolled in the final courses required to meet graduation requirements. A non-refundable fee is required of all students who intend to complete their degree regardless if they choose to participate in the commencement ceremony. If students do not successfully complete their degree requirements at the close of the semester for which they have applied, they will be required to reapply and pay another fee during the subsequent semester in which they intend to graduate. Students who elect to participate in the commencement ceremony must "walk" in the semester they graduate. As there is no commencement ceremony in the summer, students who graduate in August will be eligible to participate in the December ceremony. Diplomas are mailed after the final approval is received from the graduating student's school. Diplomas are mailed to students 10 to 12 weeks after the end of the semester. Diplomas are mailed to the mailing address on record at the time of graduation. Students who graduate from UHCL must complete a new application and pay the applicable application fee in order to continue taking classes.

Latin Honors

Undergraduate students who have applied to graduate and have completed their degree requirements with exceptionally high scholastic averages will be eligible for Latin honors. To be considered as a candidate for Latin honors a student must have earned a minimum GPA of 3.5 the semester prior to applying to graduate and be within the top 10% of their graduating class and in their college of study. Those who are in the top 2% of each college's enrollment of their class will be eligible to graduate summa cum laude; those in the next 3%, magna cum laude; and those in the next 5%, cum laude. The cumulative grade point average used in determining Latin honors includes all hours attempted and grades earned in those courses. As a result, the cumulative grade point average used in determining Latin honors may differ from the cumulative grade point average that appears on the student's transcripts which is based only on the grades earned in the last attempt of each course.

International Admissions and Programs

The Office of International Admissions and Programs welcomes prospective students, current students, alumni, faculty and staff. Our services include: international admissions; international advising for F-1 students and alumni, F-2 dependents, and J-1 exchange visitors; study abroad programs; and, all university international agreements.

General Information & Definitions

General Information

For general information, please refer to relevant sections in this catalog for information, including but not limited to: Admission Statuses, Acceptance into a Degree Program, Admission Appeals Process, Transcripts and Records Information, Transferrable Credit, Automatic Admissions, Assured Admissions, Uniform Admission Requirements, Texas Success Initiative-TSI, Transfer Admission Requirements, Transient Admission Requirements, Admission Appeals Process, etc.

Definitions

International Applicant- individuals who apply to the university and either (a) hold a U.S. visa or (b) anticipate entering the U.S. with a visa. Individuals who are Legal Permanent Residents, on Temporary Protective Status (TPS), U.S. citizens (naturalized or by birth), Refugee/Asylee, or Undocumented are not considered international applicants.

International Student- students who are in the U.S. or will be in the U.S. in F-1 status.

Conditional Admissions- a process in which the university reviews the application and submitted documentation to determine if the applicant meets the admission requirements outside of English Language Proficiency and SAT/ACT test (for freshmen applicants with less than 12 credits). This may be limited to UHCL recognized English Language Programs (such as ELS) and government sponsored students.

Conditionally Admitted- application status that signifies that the student hasn't met English Language Proficiency Requirements or standardized test score requirement such as SAT/ACT (for students with less than 12 credits) but meets other academic requirements such as a minimum GPA and proof of degree/diploma (as applicable).

International Admissions

Application Fee

The application fee is \$75.

The application fee can be paid by credit card (MasterCard, VISA, American Express or Discover) during the online application process or after the application's submission. To submit the application fee online after applying, students must use their E-Services account or pay in person at the Office of Student Business Services.

Application Deadlines

The application deadline dates for international applicants are as follows:

Fall Enrollment

Priority Deadline*: Apply by March 1

Final Deadline: Apply by June 1

Spring Enrollment

Priority Deadline*: Apply by Aug. 1

Final Deadline: Apply by Nov. 1

Summer Enrollment**

Priority Deadline*: Apply by Feb. 1

Final Deadline: Apply by April 1

* Students interested in qualifying for scholarships and/or applying for visas outside the U.S. should apply and submit the application documents/test scores by the priority deadline.

** Freshmen will not be accepted for summer semester.

Deferral Process

Freshman applicants, who do not enroll, may defer their application for one semester only. Transfer applicants, who do not enroll, are eligible to defer their application within three semesters of submitting their original application for admission. To defer to a new semester, students should submit an Application Update Form, which can be found on the [Office of International Admissions and Programs' website](#). This form can also be used to request a change in academic programs during the admission process. Students who are ineligible to defer their application can re-apply and pay the application fee.

Notification of Admission

Upon receipt of appropriate documentation, the Office of International Admissions and Programs will determine applicants' eligibility to the university and will notify them with the admission decision. If accepted, applicants will receive important information regarding registration dates and procedures. This information is also available on the university's website through E-Services.

Freshman and Transfer Student Admissions Requirements

Admission Requirements for Freshmen Educated Inside the United States

After submitting an International Undergraduate Freshman Application through [ApplyTexas.org](https://apply.texas.gov) and the \$75 application fee, applicants who earn their high school diploma in the United States must meet the university's general freshman admission standards as explained in the [New Student Admissions](#) section of the catalog. Upon acceptance, student will be required to submit additional documents (see [Additional Document Requirements](#)).

Admission Requirements for Freshmen Educated Outside the United States

After submitting an International Undergraduate Freshman Application through [ApplyTexas.org](https://apply.texas.gov) and the \$75 application fee, applicants who have attended an institution located outside the United States must:

- Possess the equivalent of a U.S. high school/secondary diploma.*
- Submit official SAT/ACT scores.
- Meet the English proficiency requirement.

The Office of International Admissions and Programs will complete a holistic review of each applicant.

* International applicants submitting international documents must follow UHCL procedures for the submission of this documentation (see [International Transcript and Document Requirements](#)). Upon acceptance, student will be required to submit additional documents (see [Additional Document Requirements](#)).

Transfer Admission Requirements

After submitting an International Transfer Application and the \$75 application fee, applicants must meet the university's general transfer admission standards as explained in the [New Student Admissions](#) section of the catalog and meet the English Proficiency requirement. Upon acceptance, student will be required to submit additional documents (see [Additional Document Requirements](#)).

Transfer Applicant Information

Transfer students must submit official documents from each higher education institution attended (inside and outside of the U.S.) Documents must meet requirements for U.S. documents and International Documents (see Documents for Acceptance).

International Conditional Admission

International applicants who meet the institution's admission requirements for their chosen level and degree program, but who have not yet met the English Proficiency requirement, can be conditionally admitted. Please note that Conditional Admission does not allow registration or enrollment at UHCL.

Once completing ELS Level 112 or otherwise demonstrate proficiency of English*:

- freshmen applicants (with less than 12 credits) must submit their SAT/ACT tests scores for full admission consideration.
- applicants with at least 12 credits will be fully accepted.

*(see English Proficiency Requirements for Students Educated Outside of the United States).

Information for Other Students (Non-Freshman/Non-Transfer)

Non-Degree-Seeking Status

International students who anticipate holding F-1 status with UHCL are not eligible for admission as non-degree-seeking students. They must enroll in a degree program. Although their primary program must be degree-seeking, these students can enroll simultaneously in a secondary non-degree certificate or certification program. J-1 students or students in other immigration statuses are allowed to enroll in a non-degree program.

Transient Students (Regular or Summer)

Transfer students, who wish to enroll in non-degree-seeking status at UHCL, can enroll as a transient student. Enrollment as a transient can be for only one fall or spring semester; or, in one or both summer sessions. Students must have at least 12 transferrable credit hours.

All required documentation for admission must be provided, prior to registration. Students in F-1 status must also submit a letter from their Designated School Official (DSO) that gives them permission to enroll as a transient student at UHCL. See Transient Admissions Requirements in [New Student Admissions](#).

Documents for Acceptance and Enrollment

Applicants must indicate on their application for admission all previous schools attended. Degree-seeking students must submit official transcripts from each college or university attended. Transient students must provide documents from each institution attended to be eligible to register and must be eligible to return immediately to the last school attended. Post-baccalaureate applicants who apply in non-degree-seeking status, should only submit transcripts from the last institution attended, as well as the school where their highest degree was earned, if different.

The Office of International Admissions & Programs must receive all documents by the appropriate deadline. (See Application Deadlines.) An official transcript of any coursework in progress and proof of diploma/degree, prior to or during enrollment at University of Houston-Clear Lake, should be sent to the Office of International Admissions and Programs immediately after grades are posted. To expedite processing, applicants should request that domestic (U.S.) transcripts be sent electronically. UHCL's preferred method of transcript delivery is via EDI or SPEEDE download for transfer work and Trex electronic downloads for high school work. Hand-delivered transcripts must be no more than 60 days old and enclosed in a sealed envelope from the issuing institution.

If students knowingly withhold information or submit fraudulent information regarding enrollment at another accredited institution, their application to UHCL will be considered invalid and they may be administratively withdrawn from classes without a refund of fees paid.

Domestic (U.S.) Transcripts

High school (secondary) transcripts (required for Freshmen admissions) must be accredited by either the Texas Education Agency or the appropriate Regional Association of Schools and Colleges.

UHCL will accept official transcripts from regionally accredited colleges and universities. For purposes of transfer credit, UHCL only considers academic credit in evaluating hours earned for transfer admissions purposes. For more information on acceptable transfer coursework, see Transferrable Credit in [New Student Admissions](#).

International Transcript and Document Requirements

School Accreditation Status

Applicants submitting international college or university transcripts/documents must have attended an international institution recognized by the International Association of Universities (UNESCO) or Ministry of Education.

Transcripts from International Institutions

Students entering UHCL directly from an institution of secondary education must provide the Office of International Admissions and programs with the equivalent of transcripts and secondary diploma.

Students with higher education experience must provide the Office of International Admissions and Programs with official transcripts, mark (grade) sheets and confirmation of degrees or diplomas for all academic studies attempted and completed at those colleges/universities.

Transcripts and/or mark (grade) sheets must be in the original language and accompanied by official English translations (if applicable). These documents should clearly indicate dates of attendance, subjects taken and marks (grades) earned and reflect any degrees or diplomas awarded.

Official transcripts must be sent to UHCL by the registrar of each institution attended. When this is not possible, documents certified by an embassy or consulate, EducationUSA official, university authority (such as principal, registrar, controller of examinations, vice rector or rector), Ministry of Education or Ministry of Foreign Affairs official as "true copies" may be accepted. Copies of documents that are not certified will not be accepted.

Students who have taken university level courses outside of the U.S. are required to submit a course by course evaluation by one of the following: [NACES](#), SDR, or AACRAO Evaluation Services or by submitting the appropriate syllabus information. This additional documentation is used to determine transfer credit. Some required core courses cannot be transferred from non-Texas institutions. Any appropriate credit will be granted according to UHCL degree requirements in effect at the time of enrollment.

English Proficiency Requirements for Students Educated Outside of the United States

Applicants educated in countries where English is not the native or first language must demonstrate English proficiency. The intent of this policy is to ensure that students, for whom English is not the native language, have a reasonable chance to succeed academically based on their ability to comprehend and use spoken and written English. For additional details refer to the [New Student Admissions](#) section of this catalog.

Additional Document Requirements

Prior to being allowed to enroll, accepted students who are in the U.S. or plan on entering the U.S. in F or J visa status are required to submit:

- Signed [Sponsor's Affidavit of Support](#) with attached financial statement
- Signed [Statement of Understanding](#)
- Copy of photo page of passport

- Students who are already in the U.S. must also submit:
 - Copy of current [I-94](#)
 - Copy of SEVIS I-20 or DS-2019 (if applicable)

The following documents are required for students entering the U.S. in another visa status:

- Copy of photo page of passport
- Copy of current [I-94](#) or U.S. visa (if currently out of the U.S.)

The university recommends that these Additional Document Requirements are submitted immediately after the student applies so that there isn't a delay in the enrollment process.

Other Policies Applicable for International Students

Transfer-In Policy

Students who hold F-1 visas and are currently studying at another SEVIS approved institution of higher education in the United States must do the following:

- Be accepted by University of Houston-Clear Lake.
- Request the "transfer-out" school to transfer their SEVIS record to UHCL.
- The "transfer-out" school must then set up the SEVIS transfer to UHCL, prior to the student receiving eligibility to enroll.

Health Insurance

All international students holding F or J visas are required to have health insurance, including medical evacuation and repatriation coverage. The university provides such insurance and automatically adds the premium to applicable tuition/fee statements. International students with health insurance comparable to the university's coverage may request a waiver of the university's health insurance.

To be considered for a waiver, students must submit a waiver request online by the dates posted. The University of Houston-Clear Lake will not accept waiver requests by U.S. mail, email, fax, or documents brought to the university. Incomplete requests, late requests, or insurance policies not meeting the minimum requirements will not be approved. Each F or J visa holder is responsible for any late fees associated with the waiver process.

Check-In

All international students holding F and J visas are required to check in with the Office of International Admissions & Programs upon arrival to campus. Students must complete this check-in process through the [International Student Document Portal](#). Also, students must submit all official transcripts, other academic documents showing degree completion, and final semester coursework. Failure to complete the

check-in process and/or submit the final transcript or degree will cause a hold to be put on the student's account. This hold will prevent the student from registering for a future semester.

International Student Orientation

New International Student Orientation is offered prior to each fall, spring and summer semesters and is mandatory for all new international students. A comprehensive program is offered to all new international students to the university. The orientation provides information regarding health insurance, visa regulations, cross-cultural adjustment, transition to college, negotiating campus setting, academic and peer advising.

Concurrent Enrollment

International students seeking undergraduate degrees at UHCL may obtain an International Student Adviser's permission to co-enroll at another institution. Permission for concurrent enrollment must be obtained from a UHCL international student adviser through the [International Student Document Portal](#) prior to attempting to register and enroll concurrently at a different institution. At the beginning of the semester, a registration print out or transcript from the host school must be provided to the UHCL international student adviser as proof of students' enrollment status. International students must provide official transcripts after the semester has completed from the other institution.

Education Abroad and Scholar Services

Education Abroad at UHCL is committed to helping students expand their global awareness. We promote, support, and develop international and intercultural educational opportunities for students and in so doing, contribute to defining the international character of UHCL.

Education Abroad is here to help you connect to the right program—one that aligns with your academic goals, challenges your perspectives, and empowers students to become engaged global citizens. Students interested in education abroad opportunities should contact Education Abroad to attend an Education Abroad 101 Information Session. All students who participate in an education abroad program are required to complete the University's education abroad participation forms, purchase the approved education abroad health insurance, pay any applicable education abroad program fees, and attend a pre-departure orientation meeting.

Types of Education Abroad Programs

UHCL Faculty-Led

UHCL administers faculty-led programs, either fully or in partnerships with other institutions. Programs are led by full-time UHCL faculty associated with a UHCL course. Students earn regular UHCL credits and grades that count towards degree requirements (upon written approval).

Exchange Programs

UHCL students may study for a semester or academic year at institutions in which UHCL has established international student exchange agreements for which they will receive transfer credit at UHCL upon written approval.

Partner Providers

UHCL has a list of partner providers that facilitate and administers education abroad programs all over the world. The providers take all of the guesswork out of the education abroad process. Even before leaving for your new host country, providers assist in securing visas, transfer credit documentation, organizing flights, and picking housing and roommate options for you. Written course transfer approval is required to obtain financial aid.

Students who register for education abroad programs administered by institutions other than UHCL will pay the tuition and fees of the administering university or program, in addition to any applicable education abroad fees payable to UHCL to maintain the student's enrollment at UHCL.

J-1 Exchange Scholar Program

The goal of UHCL's J-1 Exchange Visitor Program is to promote cultural and educational exchange between international and domestic students, faculty, staff, and community members as well as to promote greater diversity and global awareness within the UHCL community. Components of this program include:

- Educational, research and teaching activities
- Cultural exchange programming
- Cultural adjustment support
- Immigration advising

New Student Admissions

Office of Admissions

Admission Statuses

Admission is defined as permission to enroll in courses for academic credit. Students can be admitted as degree-seeking or non-degree-seeking. Admission to the university does not guarantee the admission to specific majors or academic programs. Undergraduate applicants may be admitted as new or returning students.

New Undergraduate Students

New high school or transfer students are those who were never enrolled beyond the census date at UHCL.

Post-baccalaureate students

Post-baccalaureate students have earned a bachelor's degree or higher and will enroll in undergraduate status at UHCL. These students may be degree-seeking or non-degree-seeking. Some Post-baccalaureate students may seek Teacher Certification (see Teacher Certification).

Returning Students

Former undergraduate students, are those who have previously attended UHCL, but have not enrolled during the past three-consecutive semesters. Former students can return immediately to their prior program, by submitting the following:

1. Undergraduate Readmit Application, via the online ApplyTexas Application site,
2. Non-refundable application fee, and
3. Official transcript(s) of any coursework completed since the last semester of enrollment at UHCL. Other transcript(s) of completed coursework may be required, if not previously submitted or if no longer on file.

Former students applying to enroll in a different degree program, must meet the current admissions requirements for that program.

Students Returning from Academic Suspension or Deficiency

- Former students, who left the university due to academic suspension or deficiency, must be reviewed for reinstatement by the appropriate college's associate dean or designee.
- Non-degree-seeking students, requiring reinstatement, are reviewed by the Associate Vice President of Enrollment Management or designee.

Student Degree Status Options and Changes

Degree-seeking students

Degree-seeking students are those who will apply for admission to academic degree programs.

Non-degree-seeking students

Non-degree-seeking students are seeking admission for reasons other than the pursuit of a degree, (e.g. personal enrichment, job enhancement or teacher certification).

Non-degree-seeking students are not eligible for financial aid and must reapply as degree-seeking, to pursue a degree at UHCL in a future semester.

Important Information:

- Credit earned in non-degree status will not automatically be applicable to academic degree programs,
- Some courses are restricted for enrollment of degree-seeking students, and
- The number of hours taken in non-degree status, that can be applied to a student's Candidate Plan of Study (CPS), may be limited.

For more information on non-degree-seeking statuses, see Summer Visiting Freshman and Transient Students.

Status Changes

Career Changes (Undergraduate to Graduate)

Post-baccalaureate applicants can request to change their career to graduate (vice versa) once, without submitting a new application or application fee to the Office of Admissions.

- Applicants may still be asked to reapply online when making this request to an Enrollment Management Counselor; however, the application fee will not be assessed on the initial request.

Degree Status Changes

(Degree-seeking to Non-degree-Seeking)

Undergraduate applicants (including post-baccalaureate students) can change from degree-seeking to non-degree-seeking, by submitting a Transfer/Graduate Application Update Form to an Enrollment Management Counselor.

- If this change is completed by the first day of classes, it will be effective for the current semester. Program changes requested after the first day of classes, should be sent to admissions via the appropriate advising office.
- Enrolled degree-seeking students, who wish to become non-degree-seeking after the census date, can request a change of status through the Registrar's office. An Academic Records Change Form must be completed.

(Non-degree-seeking to Degree-seeking)

- Non-degree-seeking applicants, who have not enrolled, can request to change their application status to degree-seeking. To change statuses, applicants must submit an **Application Update Form** to the Office of Admissions. Applicants may not be eligible to change to degree-seeking, if all applicable documentation is not on file or if GPA/test score requirements are not met.
- Non-degree-seeking students, who have enrolled, must reapply to change to degree-seeking status. All documents are required to be on file in the Office of Admissions and any applicable GPA/score requirements must be met.

Acceptance into a Degree Program

Acceptance into a degree program is determined by the Office of Admissions (some programs may have additional admission requirements).

Transfer credit from other institutions and credit earned at UHCL may not automatically be applied or applicable toward the completion of UHCL degrees.

- Technical coursework is not applicable toward academic program requirements. UHCL technical degree programs allow only specific types and amounts of technical credit in transfer (see Granting Credit by Exception).
- Coursework applicable to UHCL degree requirements are confirmed, once the Candidate Plan of Study (CPS) has been completed by the academic department and provided to students.
- Returning students, who were not enrolled for 12 consecutive months, must contact their academic adviser to receive their revised CPS. The new CPS may contain new or revised degree requirements, as coursework formerly included, may no longer be acceptable toward the current UHCL degree.

Notification of Admission

Upon receipt of all required documentation, the Office of Admissions will determine applicants' admissibility to UHCL and notify them of their admission decision. Notification occurs through their Student Services Center, by mail or by email. If accepted, students will receive additional information regarding next steps from various departments, including but not limited to orientation, registration and advising offices.

Admission Appeals Process

Applicants who complete their admissions file, but do not meet university admission requirements, are automatically provided a Departmental Individual Review. Applicants denied through Individual Review, may request an appeal of their admission decision by an Enrollment Management official or faculty.

To be eligible for an Admissions Appeal, applicants must submit the following:

- Admissions Appeal Form, available on the Office of Admissions' website,
- A Personal Statement, indicating reasons for their past academic performance and plans for future success,
- Updated official high school transcript and test scores, (as applicable)
- Updated transfer transcript(s), (if applicable)
- Applicants may also include documentation of the following: first generation college attendance, employment experience, special abilities such as bilingual proficiency, meeting family

responsibilities, individual achievement(s), leadership activities, public service, military service, or any additional information believed to be relevant to the request for reconsideration

A complete application packet of all required documents and scores (if applicable) must be on file in the Office of Admissions, prior to the review.

English Proficiency Requirements for Applicants Educated Outside of the United States

All applicants, educated in countries where English is not the official language, must demonstrate English proficiency. This is required during the admissions process. The intent of this policy is to ensure applicants have reasonable chances to succeed academically, based on their ability to comprehend, speak and write in English. The English proficiency requirement may be met by qualifying under one of the following criteria:*

- Earning a U.S. High School Diploma or conferred degree from a regionally accredited institution of higher education (e.g. associate's degree, baccalaureate degree or higher). Applied Science degrees cannot be used to waive the English proficiency requirement.
- Earning qualifying test scores from the SAT, ACT, TAKS, STAAR or Stanford exam (see TSI Assessment Exemptions through Test Scores).
- Achievement Tests (for deaf students only). Specific exemption information can be obtained by contacting the Office of Admissions.
- Earning 12 or more transferrable hours in the following subjects (English, Speech, and heavy reading-related subjects, such as Government, Political Science, History, etc.) from regionally accredited institutions of higher education, with grades of C or higher; 6 of the 12 hours must be in English composition. English as Second Language courses (ESL or ESOL) do not count toward English proficiency exemptions.
- Official Pearson Test of English (PTE) scores of 53 or higher.
- Official International English Language System (IELTS) scores of 6.0 or higher.
- Successful completion of ELS Level 112 - Intensive English Program, or
- ibT TOEFL scores of 79.

* Teacher Certification applicants require different criteria for English Proficiency (see Teacher Certification).

Academic Fresh Start

Academic Fresh Start is an opportunity for new and former students, to have coursework earned 10 or more years ago, ignored for admission purposes.* Once disregarded, this coursework cannot be used at UHCL for purposes of admission, course prerequisites or degree requirements.

Official transcripts from all colleges attended, including coursework completed 10 or more years ago in Texas, must be sent to University of Houston–Clear Lake, Office of Admissions. Students eligible for Academic Fresh Start, however, must meet current admission requirements using the coursework taken within the past 10 years.

To learn more about Academic Fresh Start, applicants should contact an Enrollment Management Counselor in the Office of Admissions, provide a written request of their intention to enroll under Academic Fresh Start and sign the Academic Fresh Start Acknowledgment Form, found on the Office of Admissions' website.

* Exceptions: Students who were originally exempt from the Texas Success Initiative (TSI), due to coursework completed prior to fall 1989, and have chosen to ignore those hours by enrolling at UHCL under Academic Fresh Start, will still be considered TSI exempt. Students who have earned bachelor degrees are not eligible for this option.

Transcripts and Records Information

U.S. Transcript Requirements

High schools must be accredited by either the Texas Education Agency or the appropriate Regional Association of Schools and Colleges.

Transcripts from Colleges or Universities

For admission purposes, UHCL will accept official transcripts from regionally accredited colleges and universities. UHCL will also consider applicable credit from institutions recognized by The Council on Higher Education (CHEA) and the U.S. Department of Education (DOE).

For purposes of transfer credit, UHCL only considers academic coursework in evaluating hours earned for transfer admissions purposes. For more information on acceptable transfer coursework, see [Transferrable Credit](#).

Application Procedures

Applicants must include, on their application for admission, all previous schools attended. Degree-seeking students must submit official transcripts from each college or university attended.

The Office of Admissions must receive all documents by the appropriate deadline ([see Deadlines](#)). An official transcript of any coursework in progress, prior to or during enrollment at University of Houston–Clear Lake, should be sent to the Office of Admissions immediately after grades are posted. To expedite processing, applicants should request that transcripts be sent electronically. UHCL's preferred method of transcript delivery is via EDI or SPEEDE electronic download for transfer coursework and by TReX electronic downloads, for high school coursework. Mailed or hand-delivered transcripts from

applicants, must be no more than 60 days old and enclosed in a sealed envelope from the issuing institution.

If students knowingly withhold information or submit fraudulent information regarding enrollment at another accredited institution, their application to UHCL may be rescinded and they may be administratively withdrawn from classes, without a refund of fees paid.

International Transcript and Documents Requirements

School Accreditation Status

International transfer schools or universities must be listed among the recognized institutions of the International Association of Universities (UNESCO) or the Ministry of Education of the appropriate country.

Transcripts from International Institutions

UHCL applicants, who attended international institutions, must provide the Office of Admissions with official transcripts confirming all academic studies attempted and completed for the admissions review. Required transcripts must also include mark (grade) sheets and any earned or pending degree(s) and/or diploma(s). If initially in-progress or pending, confirmation of course completion or graduation is required for re-enrollment at UHCL.

Transcripts and/or mark sheets must be in the original language and accompanied by official English translations (if applicable). These documents should clearly indicate dates of attendance, subjects taken, marks (grades) earned and reflect any degrees/diplomas awarded.

Official transcripts must be sent directly to University of Houston-Clear Lake by the registrar of each institution attended. When this is not possible, documents certified by an embassy or consular official as "true copies" may be accepted. Scanned or photocopies of documents that are not certified will not be accepted.

Students requesting to transfer specific undergraduate coursework completed outside of the U.S. should be prepared to provide an official evaluation of coursework completed from a UHCL accepted evaluation service such as SDR, any member of NACES or AACRAO. A course syllabus may also be needed for some courses to determine course level for equivalency to UHCL coursework. Additionally, some required core courses cannot be transferred from non-Texas institutions.

Any appropriate credit will be granted according to UHCL degree requirements in effect at the time of enrollment or reapplication to the university. If all required documentation is received, an official evaluation for transferring students will be completed during the first semester of enrollment.

Transferrable Credit

Acceptable Institutions

Transfer colleges must be either regionally accredited, recognized by the U.S. Department of Education (DOE), the Council for Higher Education Accreditation (CHEA), or may be nationally accredited by the appropriate Ministry of Education for overseas studies (see Acceptable Coursework).

Acceptable Coursework

College level (non-remedial/developmental) academic coursework completed at regionally accredited institutions is generally accepted, when courses are compatible with UHCL academic coursework and applicable to students' programs of study. All other coursework, including credit completed at institutions of higher education having recognized or national accreditation, are reviewed case-by-case, requiring the following two criteria be met for acceptance:

- Courses must be equivalent to those offered at UHCL and will be reviewed on a course-by-course basis, by the appropriate academic department.
- Courses must fulfill established degree requirements for graduation, as either elective or program specific course credit, and will be reviewed on a course-by-course basis by the appropriate academic faculty or dean, for applicability to student programs of study.

Granting Credit by Exception

Credit may be granted for courses taken through various non-collegiate organizations, based on recommendations made by the American Council on Education (ACE) or Commission on Educational Credit, when such training is considered by UHCL to be at the baccalaureate level and consistent with students' educational objectives. These types of credit will be reviewed on a case-by-case basis, by the appropriate academic department's faculty or dean.

- Developmental and remedial courses, as well as courses classified as below freshman level at the institution where the student took them, are not transferrable and will not count toward a degree at UHCL.
- Technical credit will automatically be accepted to satisfy specific degree requirements for the eligible Bachelor of Applied Sciences and Nursing programs.
- Courses will transfer to UHCL at the same level and with the corresponding number of hours that were earned at the transfer institution, with some exceptions such as quarter hours. Quarter hours will be converted to semester credit hours.
- Grades from other institutions are not transferrable, the official UHCL grade point average is based only on coursework completed in residence at UHCL. Students cannot satisfy baccalaureate degree requirements at UHCL using coursework taken at another institution, unless the course is both accepted by the university in transfer and applied toward the baccalaureate degree(s).

Core Curriculum Credit Requirements

The following clarifications apply to the transfer of core curriculum credit:

- Students who transfer to UHCL from another Texas public institution of higher education, where they have successfully completed all of that transfer institution's Texas Higher Education Coordinating Board–approved core curriculum, shall be considered "core complete" and shall not be required to take additional courses to complete UHCL core curriculum.
- Students transferring to UHCL, from institutions that do not have Coordinating Board–approved core curriculum, may use transfer credit to satisfy UHCL core curriculum requirements. When no current equivalency exists for specific course(s) or when course content/level must be determined, students may submit a syllabus and request a review.
- A maximum of 75 semester hours of lower division (freshman and sophomore) transfer work can be applied toward a baccalaureate degree at UHCL. Degree requirements for specific majors will determine the number of lower division courses that are accepted in transfer. The classification of courses as lower division is based on their external level and their classification at UHCL.

Earning a UHCL Degree

To earn a bachelor's degree at UHCL, students must complete 25% of their final program credit hours in residence. For a standard 120–hour degree program, that would be equal to 30 semester credit hours. Unless prohibited by one or more of the general regulations above, the appropriate college dean will make final decisions on application of transfer credit to degree programs.

Developmental or Remedial Transfer Coursework

Developmental or remedial transfer coursework is non–transferrable. This credit is not used to determine eligibility to UHCL, nor toward any degree or scholarship requirement.

Dual Credit or Early College Coursework

High school applicants, who earned college credit before receiving a high school diploma, are considered freshmen for admission purposes. Applicants who graduate from high school in a spring term, and earn credit in the summer term immediately following their high school graduation, are still considered freshmen for admission purposes. These students should apply to the university as freshmen, regardless of hours or degrees earned.

Transfer credit is evaluated for UHCL course equivalency, upon receipt of required college transcripts. Freshmen (dual credit or early college), who are admissible without submitting college transcripts, should send those documents to the Office of Admissions immediately after admission, for proper application of course credit towards their current degree plan. Receipt of completed college courses will assist in determining any applicable test assessment waivers and provide the most accurate advising, during the UHCL course enrollment process. UHCL's fastest and preferred method of transcript

delivery is EDI or SPEEDE system download for college transcripts and TREx for high school documents. (These types of electronic documents will download coursework directly into our PeopleSoft system).

Repeated Transfer Courses

All transferrable coursework attempted (including repeated courses) will be used to determine the cumulative transfer grade point average required for admission. If students repeat a course(s), the last grade earned for that course will be counted toward fulfillment of UHCL degree requirements. However, if students have repeated a core course, the best attempt may be used.

Teacher Certification and Language Requirements

Teacher Certification

Students can complete a teacher certification program, with or without earning a degree at UHCL. Those who have already earned bachelor's degrees and plan to complete undergraduate teacher certification, without simultaneously enrolling in a graduate degree program, can complete certification coursework in post-baccalaureate (PB) status.

Teacher Certification English Language Requirements

- Verification of minimum scaled scores of 79 on the Test of English as a Foreign Language Internet – Based (TOEFL iBT). Minimum scores must be submitted directly to TEA (agency code) 8225. Scores must be as follows:
 - Speaking: 24
 - Listening: 22
 - Reading 22
 - Writing 21
- Completion of an undergraduate or graduate degree at an accredited institution of higher education in the United States, not including U.S. Territories.
- Completion of an undergraduate or graduate degree, at an institution of higher education in a country outside of the U.S., approved by the State for Educator Certification (SBEC) as listed below:*

American Samoa	Anguilla	Antigua and Barbuda
Australia	Bahamas	Barbados
Belize	Bermuda	British Virgin Islands
Cayman Islands	Canada (except Quebec)	Dominica
Gambia	Ghana	Gibraltar
Grand Canyon	Grenada	Guyana
Jamaica	Liberia	Nigeria
Saint Kitts and Nevis	Saint Lucia	Trinidad /Tobago

Turks and Caicos	United Kingdom	U.S. Pacific Trust
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*British Virgin Islands include - England, Northern Ireland, Scotland and Wales. The United Kingdom includes - West Indies.

Freshman Admissions

In order to be considered for admission, applicants must apply online via the Apply Texas Application website and submit official transcripts, entrance examinations and any required Individual Review materials by the appropriate deadlines (see Application Procedures).

The current Application Fee is: \$45.

Application fees are non-refundable and can be paid by credit card (MasterCard, VISA, American Express or Discover) during the ApplyTexas online application process or after the application's submission. To submit the application fee online after applying, students must use their E-Services account (under Application fees) or pay in person at the university's Student Business Services office.

High school students, who earned dual college or concurrent enrollment credit prior to graduation, are considered freshmen for admission purposes. Freshmen applicants, who do not enroll in their applied semester, may delay their admission for two semesters, following the receipt of their initial application. To request a change to a future semester, students should submit a Freshman Application Update Form, which can be found on the Office of Admissions' website.

Automatic Admission

In compliance with state law, applicants who graduate in the top 10% of their high school class; and who successfully complete either the Foundation Program at the Distinguished Level of Achievement, the Recommended High School Program or the Distinguished Achievement Program, will receive automatic admission to UHCL. In order to be eligible for consideration under this option, applicants must have graduated from high school no more than two years prior to the academic year, for which they are applying for admission.

Applicants in the top 10% of their class are required to submit either SAT* or ACT scores and must participate in university success programs, if they do not earn the following:

- SAT: a minimum score of 480 reading/writing section and 530 on the Math section, or
- ACT: a minimum score of 23 on the ACT Composite; English 19, Math 19.

Assured Admission

Applicants who meet the State of Texas Uniform Admission Policy and also meet UHCL requirements are assured admission.

Rank in Class	Minimum SAT Scores	ACT
Top 11-25%	1030	20
Top 26-50%	1130	23

Admission Under Individual Review

Applicants, who do not meet UHCL Automatic admissions requirements will be considered under Individual Review by Admissions Officers.

During Individual Review, applicants may be asked to submit additional information required to finalize the admission decision. This may include:

- New SAT or ACT scores
- An updated high school transcript with senior grades
- A college transcript with completed course work

Applicants denied in Individual Review, may request further consideration from an Enrollment Management official or faculty. Additional (non-academic) information may be submitted to support the appeal request.

Applicants are required to submit:

- Personal statement addressing reasons for past performance and plans to assure future success.

Other information that may assist in the Appeal processes include:

- First-generation college attendance
- Employment experience
- Individual achievements
- Leadership activities
- Public service
- Extra-curricular activities
- Military service

Important Information:

All students applying to UHCL must meet Texas Uniform Admissions Requirements and satisfy the state's TSI Requirements.

Applications will be reviewed based on the following criteria:

- Sixth/Seventh Semester Grades: The university will evaluate and admit applicants based on their high school academic records, with a minimum of 6 completed semesters. Final transcripts showing high school graduation are required once students have graduated.
- Accredited High Schools: Applicants graduating from high schools accredited by either the Texas Education Agency or the appropriate Regional Association of Schools and Colleges will be admitted, if they meet current UHCL admission requirements.
- Non-accredited High Schools: Applicants graduating from high schools that are not accredited by either the Texas Education Agency or the appropriate Regional Association of Schools and Colleges will be reviewed for admissions by Admissions Officers in Individual Review or by Enrollment Management Officers or Faculty during the Admissions Appeals Process.
- GED/U.S. High School Equivalency: The university recognizes GED and some other U.S. High School Equivalency examinations as equivalent to high school graduation. Applicants who submit U.S. Certificates of high school equivalency and satisfactory SAT or ACT scores, will be considered for general admission, during Individual Review by Admissions Officers; or by Enrollment Management Officers or Faculty in the Admission Appeals Process.
- Home Schooled Applicants: Documentation of home-schooled studies is required for admissions consideration, along with official SAT/ACT scores.

Applicants should use the following institution codes to send UHCL their official test score results:

- SAT - 6916
- ACT - 4171

(SAT and ACT scores must download electronically into our Student Information System)

State of Texas Uniform Admission Policy

University of Houston-Clear Lake abides by the State of Texas Uniform Admissions Policy (Texas Education Code 51.803-51.809), which requires that all applicants meet one of the following college readiness standards, to be eligible for admissions consideration at Texas four-year, public institutions.

Applicants must:

- Successfully complete the Foundation Distinguished, Recommended or Advanced High School Program from a Texas public high school or the portion of the program that was available to them;
or
- Satisfy the College Readiness Benchmarks on the SAT or ACT assessment:
 - SAT – 1500 out of 2400 (Verbal + Math + Writing), or
 - ERWS=480, MSS=530, or
 - ACT – 18 English, 22 Reading, 22 Mathematics and 23 Science

Applicants who do not meet the Texas Uniform Admissions Policy, based either their high school program or one of the assessment tests, must prove readiness by submitting the appropriate signed exemption form to the Office of Admissions.

Summer Visiting Freshmen - (Non degree-seeking)

Freshmen, who will receive a high school diploma before the next available fall semester, can enroll at UHCL in summer visiting status. A six-semester transcript and application fee is required for admission.

Visiting freshmen may enroll in up to six hours of coursework at UHCL, in transient status and are not eligible for financial aid. To continue enrollment as regular students, visiting students must reapply as degree-seeking, using the online ApplyTexas application site, and meet regular freshman admissions requirements. Visiting freshmen who reapply as degree-seeking, in the next available fall semester, will not be charged the application fee.

Adult Freshman Admissions (Degree-seeking)

Adult Freshmen, who have not met UHCL's Automatic or Assured admissions requirements, may be considered for admission, if they meet all of the following qualifications:

- They are at least 25 years of age,
- They graduated from a U.S. high school or received a U.S. High School Equivalency certificate, at least three years prior to the semester of application,
- They are permanent residents of the United States,
- They are not currently enrolled in an accredited institution of higher education, and
- They have not have earned college-level, transferrable credit or a prior degree in an accredited program.

Applicants must provide an official high school transcript with graduation date posted or official High School Equivalency Certification to the Office of Admissions. High School records must meet UHCL's current High School Curriculum Policy; SAT/ACT scores are not required.

Transfer Admissions

Transfer applicants will be admitted, if they have earned a minimum of 12 semester credit hours (in a fall or spring term after high school graduation) and meet the appropriate admissions GPA requirements. These students should apply online using the Apply Texas Application for Transfer Students and submit all required documentation by the deadline.

The current Application Fee is: \$45.

Transfer applicants, who do not enroll for the semester applied, may be eligible to update their application for the next two available semesters, by submitting a Transfer/Graduate Application Update Form. This form can be found on the Office of Admissions' website.

Application fees are non-refundable and can be paid by credit card (MasterCard, VISA, American Express or Discover) during online application or after the application's submission. To submit the application fee online after applying, students must use their online E-Services account (under Application fees) or pay in person at the university's Student Business Services office.

Transfer Admissions Requirements -for Bachelor of Arts, Bachelor of Fine Arts or Bachelor of Science Degrees

Semester Credit Hours/Required Cumulative GPA*	
0-11	Must meet freshman criteria
12-29	2.750
30-44	2.250
45 or more	2.000

All grades earned from regionally accredited institutions of higher education on the official transcript(s) will be used for admissions purposes. Plus and minus designations and remedial/developmental coursework is not used to determine the cumulative, undergraduate transfer GPA. Students must be in good standing at the last institution attended.

*GPA calculation for admission includes all applicable academic grades and the hours earned for any transferrable test credit, if listed on official transcripts. Test credit received electronically from agencies and any non-traditional credit received may be accepted after admission, if equivalent to coursework offered at UHCL and applicable to the student's degree plan (see Transfer Credit Information).

Non-traditional course credit (such as ACE, military, etc.) may be added/requested after admission and applied toward degree requirements or electives. Test credit (paper copies or those downloaded from the agency) will be applied after students are admitted.

Associate Degrees

Applicants who have earned associate degrees may be admitted if they have:

- earned an Associate of Arts, Associate of Arts in Teaching or Associate of Science degree from regionally accredited institutions, and
- earned at least 54 hours of academic coursework.

Applicants who do not meet transfer admissions requirements may be reconsidered through a departmental review by Enrollment Management Officials or by faculty serving on the Admissions Appeal Committee.

Transient Admissions Requirements (Non-Degree-Seeking)

Transient students must have earned 12 transferrable college hours. These students can enroll in non-degree seeking status for only one regular spring or fall semester, or in both summer sessions. Their intent is generally to transfer this coursework to another institution. Transient students are not eligible to receive financial aid.

To enroll, students must provide official documents from each institution attended and must be eligible to return immediately to the last school attended. Registration in some courses may require pre-requisites or permission from the academic department.

Transients who wish to become regular students at UHCL, must reapply in degree-seeking status, by submitting a new application through the ApplyTexas Application site and submitting the \$45 application fee to the Office of Admissions. To be admitted, these students must meet the appropriate Transfer Admissions requirements.

Post-Baccalaureate Admissions

Post-baccalaureate (PB) applicants have earned bachelor's degrees or higher and are seeking to enroll in additional coursework at the undergraduate level. Applicants may enroll either as degree-seeking or non-degree-seeking.

Degree-seeking PB applicants must submit transcripts from each institution attended and may not enroll in graduate coursework, without departmental permission.

PB applicants who apply in non-degree-seeking status, should only submit transcripts from the last institution attended, as well as the school where their highest degree was earned, if different. Non-degree-seeking PB students are not eligible for financial aid.

Students who graduated from UHCL and wish to enroll in additional coursework must complete a new application and submit the appropriate application fee.

Bachelor of Applied Science Degrees - Technical

UHCL offers the Bachelor of Applied Science (BAS) in Interdisciplinary Studies. The BAS degree has three tracks, one in the College of Business, one in the College of Education and one in the College of Science and Engineering. Each program has its own specific requirements.

College of Business

Applicants can be considered for the Bachelor of Applied Science (BAS) Healthcare Services track, in the College of Business, if they meet all of the following requirements. Applicants must have earned:

- an Associate of Applied Science in an Allied Health-related field.
- a cumulative GPA of 2.000 or higher.

College of Education

Applicants can be considered for the Bachelor of Applied Science (BAS) Educator of Young Children track, in the College of Education, if they meet all the following requirements. Applicants must:

- have earned an Associate of Applied Science degree in an Early Childhood discipline, or have earned 33 semester credit hours, with at least 15 technical or vocational hours in an Early Childhood discipline, and
- meet the university's current transfer admissions GPA requirements.

College of Science and Engineering

Applicants can be considered for the Bachelor of Applied Science (BAS), Information Technology track, in the College of Science and Engineering, if they meet all the following requirements. Applicants must:

- have earned an Associate of Applied Science degree in Information Technology or a related field, or have earned 33 semester credit hours, with at least 15 technical or vocational hours in an IT or related discipline, and
- meet the university's current transfer admissions GPA requirements.

Bachelor of Science in Nursing (RN to BSN)

Registered Nurses (RN) can earn a bachelor's degree in nursing (BSN) to improve their leadership and management skills and advance their careers as nurse managers.

Applicants must have:

- earned an Associate Degree in Nursing (A.D.N. or AAS) from an accredited institution or a Diploma in Nursing,
- a cumulative GPA of 2.000 on all college work attempted,
- completed all lower level nursing courses with a grade of C or better and a minimum cumulative GPA of 2.500, and
- a current unencumbered Texas RN license (or verification release).*

* Verification of the RN license is required; applicants' proof of RN license will be verified by the UHCL Nursing department, after submission of application.

Hawk Connection

Hawk Connection is a program that allows community college students to experience university life, while still enrolled as freshmen or sophomores at a community college. Students can join as soon as they enroll in community college; the \$45 admissions application fee is waived.

Benefits include a signed combined community college and University of Houston–Clear Lake degree plan under the current UHCL catalog, in addition to participation in many on-campus activities. Many other benefits are outlined in the program guide.

To be eligible to participate in this program students must:

- have completed fewer than 36 semester credit hours on all college coursework,
- be in good academic standing,
- attend a required advising meeting to learn about the many benefits of the program, and
- sign a Hawk Connection agreement.

For more information about Hawk Connection, or to schedule an advising meeting, contact the Hawk Connection Coordinator in the Office of Transfer Advising at 281-283-3068, visit our website or email to connect@uhcl.edu.

Texas Success Initiative - TSI

The Texas State Education Code requires all students to demonstrate proficiency in the areas of reading, writing and mathematics, before their initial enrollment in a Texas institution of higher education. Students seeking to enroll must demonstrate college readiness, by taking the Texas Success Initiative Assessment and meeting the established cut-off scores; or by qualifying for an exemption.

TSI Assessment Test Scores

TSI Score Requirements

Mathematics – 350

Reading – 351

Writing – a placement score of at least 340, and an essay score of at least 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.

TSI Assessment Exemptions through Test Scores

Students are exempt from taking the TSI Assessment and are considered college ready, if they obtain the following scores on one of the examinations listed below:

- **SAT**–(Scholastic Assessment Test) **Prior to March 1, 2016**: A combined Critical Reading and Math score totaling 1070 or higher, with at least 500 or higher in Critical Reading and 500 or higher in Math.

A partial exemption is granted to students whose combined score is 1070 and scores a minimum of 500 in either section, but not both.

- **SAT**–(Scholastic Assessment Test) **Effective March 1, 2016**–Students must score 480 on the Evidenced Based Reading/Writing exams and 530 on the Math exam.
- **ACT**–(American College Testing) A composite score of 23 is required; with a minimum 19 on the English and corresponding mathematics sections (accepted within 5 years from the date of testing). A partial exemption is granted when students have a composite score of 23 and a minimum score of 19 in either section, but not both.
- **STAAR**–(State of Texas Assessments of Academic Readiness): A minimum score of Level 2 on the English III end-of-course (EOC) will exempt students from English and Writing requirements and Level 2 of the Algebra II end-of-course (EOC) will exempt students from the Math requirement.

TSI Assessment - Other Exemptions

Students are exempt from taking the TSI Assessment and are considered college ready, if they qualify for one of the following exemptions:

- **Degree exemption:** Students must have earned associate degrees or higher from a regionally accredited U.S. institution of higher education (Associate of Applied Science degrees are not accepted).
- **Previous institution exemption:** Transfer coursework determined to have met readiness standards, by a prior state institution in Texas.
- **Coursework exemption:** Transfer coursework determined to be equivalent to required coursework by the state and UHCL, where a grade "C" or higher was earned.
- **Transient status waiver:** Temporary waivers are granted for coursework taken by students in non-degree-seeking, transient status for personal enrichment. These students will not be pursuing undergraduate degrees.
- **Military service waiver:** Students serving on active duty, as members of the U.S. armed forces, Texas National Guard, a reserve component of the U.S. armed forces; or as service members. Student must have served for at least three years preceding enrollment. (A copy of the member's military card and a recent LES statement is required).
- **Prior military service exemption:** Available to students who were honorably discharged, retired, or released from active duty as members of the U.S. armed forces, the Texas National Guard, or who served as members of a reserve component of the U.S. armed forces on or after Aug. 1, 1990. (A copy of the student's DD214 is required).

Please note that an exemption or waiver from the TSI requirement is not automatic.

Documentation proving qualification is required. Applicants may be required to provide test scores, transcripts, military documents or other appropriate documentation to be considered for a TSI waiver or exemption. Applicants should consult the Testing Center's website for the most recent TSI information.

Transfer Credit Information

Evaluation of Undergraduate Credit

Evaluation of U.S. transfer coursework occurs for degree-seeking students after all official transcript(s) have been received in the Office of Admissions. Credit earned at transfer institution(s) and any test credit received is evaluated, during the initial transfer credit review. (AP/CLEP scores received, that were not listed on an official transcript from a transfer school, are evaluated after admission).

The application of transfer credit toward a degree at the university cannot be determined, until the official transcript has been articulated and a degree plan is made. Therefore, students should request their transcript(s) be sent, as soon as all credit is posted at their prior institution.

Applicants having any outstanding international documentation must submit original international documents to the Office of Admissions, as well as official translations and mark sheets, if applicable. Additionally, an evaluation of international credentials is required from one of the following agencies: NACES, SDR, or AACRAO evaluation services or students may submit the appropriate course syllabus information for review.

Official documents received by the Office of Admissions will not be returned to the student.

Transfer credit will be processed during the first semester of enrollment, if all required documentation is received, including a syllabus or course evaluations, if required.

Degree plans

Program departments are responsible for developing student degree plans. Students may refer to applicable online degree plan information that detail general lower and upper-level degree requirements, by specific program; or, they can refer to the online Transfer Credit Guide to review information listed regarding UHCL course equivalencies.

Awarding Test Credit

UHCL may award college credit for Advanced Placement examinations (AP) and the College Level Examination Program (CLEP). The university will accept up to a maximum of 30 semester credit hours of test credit, directly from the appropriate agency or in-transfer, toward a bachelor's degree.

To receive AP or CLEP credit previously given in transfer, UHCL must receive official transcripts showing credit has been accepted at another regionally accredited institution of higher education in Texas. Applicable credit will be applied during the admissions process.

CBE credit towards UHCL coursework, must be applied prior to the student's enrollment in any corresponding college coursework at UHCL.

International Baccalaureate

The International Baccalaureate Diploma Programme (IBDP) offers courses and examinations at the high school level. In accordance with Section 51.968 of the Texas Education Code, UHCL will grant a maximum of 24 semester credit hours in appropriate subject areas to entering freshmen, who successfully complete the program. The institution may grant fewer than 24 semester credit hours, as applicable or if students receive scores of less than four.

Students can submit official IBDP transcripts and diplomas in person or by mail to the Office of Admissions. All IB transcripts must be enclosed in the original, sealed envelopes. Additional information about ordering IB transcripts can be obtained from the following website: <http://www.ibo.org/iba/transcripts/>.

Transfer Appeals

Students can appeal transfer credit decisions, by contacting the Office of Admissions and submitting a detailed explanation and supporting documentation (if applicable) regarding the basis of their request. After faculty review, a decision will be rendered regarding the acceptability of the course. Appeals will be reviewed by the Associate Vice President of Academic Affairs.

Transfer Credit Dispute

Transfer disputes, as defined by the Texas Higher Education Coordinating Board, may arise when a lower-level course is not accepted for credit by a Texas institution of higher education. Any dispute between institutions involving transfer of lower-level credit will be handled according to the guidelines and procedures established by the Coordinating Board. A copy of the Coordinating Board guidelines may be obtained in the Office of the Provost.

Non-Traditional Credit

The Office of Admissions evaluates non-traditional learning experiences on the basis of supporting credentials and petitions submitted by students. Credit for courses taken through various non-collegiate organizations is based on recommendations from the American Council on Education (ACE). In some academic degree programs, this credit may not be applicable to coursework.

Credit for courses taken at military service training schools is based on the recommendations made in the Guide to the Evaluation of Educational Experience in the Armed Services. Students seeking military credit should submit an official transcript from AARTS, SMART or Coast Guard agencies.

Non-traditional credit is not accepted for graduate-level work.

HB 269 Military Service Credit

HB 269 allows Texas universities to award course credit to undergraduate students for military service, if certain requirements are met. Eligible veterans can receive college credit for:

- all required physical education courses needed for their degrees
- up to an additional 12 semester credit hours of general elective coursework

Credit is awarded on the basis of service, not for any college-level courses that may have been taken, while serving in the military.

In order to be eligible to receive college credit for military services, students must have:

- 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.
- completed a minimum of two years of service in the armed forces, unless discharged due to disability.
- been honorably discharged from the armed forces.

Additional information regarding HB 269, including the process of applying to receive military service credit, can be found at www.uhcl.edu/militarycredit.

UHCL Transfer Degree Plans

University of Houston–Clear Lake has developed a series of articulation agreements with community colleges in the Houston area. Transfer degree plans are used to guide prospective students in choosing recommended coursework at their college and to aid them in transferring to UHCL. Students who plan to attend or who are currently attending one of the following colleges, are encouraged to work closely with the counseling offices at these institutions as they prepare to transfer. UHCL transfer degree plans may be obtained at each of these locations:

- Alvin Community College
- Brazosport College
- College of the Mainland
- Galveston College
- Houston Community College
- Lee College
- Lone Star College System
- San Jacinto College System
- Wharton County Junior College

Online and Off-Campus Education

In an attempt to meet the need for flexibility, the university offers classes in a variety of formats and at several convenient locations. Students can opt to complete selected bachelor's degrees at centers close to their home or office. Alternatively, they can choose to take coursework online. Many of UHCL's degree

programs offer web-enhanced classes. Students and faculty can make use of the online environment to supplement traditional classes – decreasing the amount of time students actually spend in the classroom.

Online and off-campus education at UHCL facilitates and supports the delivery of UHCL courses, degrees and certificate programs as defined by the UHCL catalog.

Course Delivery Formats

Online and off-campus education is any instruction that takes place outside the UHCL campus classroom setting. University of Houston-Clear Lake offers students the opportunity to supplement their on-campus coursework. Classes offered through online and off-campus instruction are regular UHCL classes taught by UHCL faculty with the same prerequisites and requirements as classes taken on campus. Classes are offered in a variety of formats that provide options for students:

- **Online (Internet)** – This format is delivered via the internet using a course management tool called Blackboard with all class instruction delivered and course requirements fulfilled online. No face-to-face instruction and student interaction or face-to-face student group interaction is required. Courses offered online provide an environment for flexible learning and teaching while delivering the same high-quality content as in a traditional setting. **Some online courses require proctored exams.** UHCL's online classes are NOT open entrance/open exit or traditional correspondence courses. Although students are free to do their work online any time it fits into their weekly schedules, assignments are due as specified in the individual course syllabus.
- **Web-enhanced (Hybrid)** – With this format, classroom instruction is delivered and course requirements are fulfilled via a combination of face-to-face instruction at the UHCL campus and off-campus sites and online. In a web-enhanced class, an instructor can deliver all instruction online but require students to attend mandatory orientation, class presentations, and in-class examinations. The number of face-to-face meetings is determined by the instructor and can be found on the footnotes for the class on the UHCL class schedule. The web-enhanced format is popular both on the UHCL campus and at the off-campus learning centers.
- **Off-campus courses** – UHCL offers courses for selected degree programs at off-campus learning centers. Courses at our off-campus learning centers may be offered face-to-face in a traditional classroom, or as a Web enhanced class.

UHCL is committed to using the most current instructional techniques to ensure comparable learning outcomes between course work delivered in a traditional, web-enhanced, or online format. It is recommended that students have their own computer with access to the internet prior to registering for an online class. The university and off-campus centers have fully equipped computer labs that students may use.

Admission Requirements

Admission requirements are identical to those for students participating in degree programs on the UHCL campus. Students interested in participating in a distance education program must indicate so on the UHCL Application for Admissions. Program options at different off-campus learning centers and programs offered online are identified in the admissions application.

Registration

Upon successful completion of the application process, students can register for classes online through E-Services. Tuition and fees can be paid by credit card or students can arrange to make installment payments. Students who register to take classes at an off-campus location must attend classes at that particular location.

Financial Aid and Scholarships

UHCL provides quick and easy access to financial aid and scholarship information to students at a distance. Eligibility for this assistance is the same as for on-campus students. All forms, complete list of scholarships, timelines and instructions are available online at the Financial Aid website. Financial assistance is available to distance education students, as it would be for on-campus students. Please refer to www.uhcl.edu/finaid for more information.

Student Services

The Online and Off-Campus Education office has developed unique advising procedures to best serve the needs of its students. Advisers are available to assist students via face-to-face appointments, telephone or email. Academic advising is available at each of the off-campus locations. To schedule an appointment, please email disted@uhcl.edu or call 281-212-1615.

UHCL also provides student services to off-campus and online students. For assistance in accessing these services, call the Online and Off-Campus Education office at 281-212-1615 or the Student Assistance Center at 281-283-2722. Services include:

- Student photo IDs available at off-campus locations.
- Academic advising for students in online programs.
- Career exploration online and at UHCL Pearland.
- Online tutors in writing and specific content areas. Tutoring is also available at the UHCL Pearland and Texas Medical Center.
- Online bookstore.

- Online course support.
- Online study skills assessment.
- General university information via email and phone from the Student Assistance Center (SAC).
- Online access to the online student news publication, The Signal.
- Disability services, available both online and off-campus.
- Virtual library services.
- Counseling information available online and personal counseling available at the UHCL Pearland Campus.

Additionally, UHCL email is the official method of communication between the university and students. Students will receive official UHCL notifications (i.e. financial aid award packages) through their UHCL email accounts. It is the students' responsibility to check their accounts regularly.

Online Programs

All online programs and certificates offered by UHCL can be found at www.uhcl.edu/online.

Off-Campus Programs

All off-campus programs offered by UHCL can be found at www.uhcl.edu/off-campus-education.

Registration and Records Services

Registration

Enrollment is necessary for every period of attendance at University of Houston-Clear Lake. The Office of the Registrar sends announcements to specify times and other instructions for completing the enrollment process. Registration is completed online by logging into E-Services at www.uhcl.edu/eservices. Please refer to the Academic Calendar online for registration dates and deadlines. Students who need assistance with registration may visit the Student Assistance Center at the UHCL campus or Enrollment Services at Pearland. Registration is not complete until tuition and fees have been paid in full. If tuition and fee payments are not received by stated deadlines, payment will be considered late. Additional questions regarding registration should be directed to the Office of the Registrar.

Veterans will receive earliest priority date based on their official course registration date and class availability.

Academic Advising

University of Houston–Clear Lake is committed to providing the most appropriate and effective academic direction, assistance, and support for all students. At UHCL, there are two types of advisers: transfer advisers and academic advisers. The Office of Transfer Advising offers assistance to prospective and incoming transfer students by providing a variety of pre-admission services and assistance with course selection before the first semester of enrollment. Similarly, the academic advisers housed in the academic colleges onboard and work with freshman and post-back students.

More information on Academic Advising can be found in the [Student Success and Initiatives Division](#) or at www.uhcl.edu/academics/advising.

Degree-Seeking Versus Non-Degree-Seeking Status

Degree-seeking students must select courses complying with provisions of their Candidate Plan of Study (CPS). Undergraduate degree-seeking students are restricted to courses on the undergraduate level, designated by course numbers in the 1000, 2000, 3000 and 4000 range, unless they are within six hours of graduation, meet all other requirements as stated in the Undergraduate Enrollment in Graduate Courses section of the catalog and meet the specific requirements of the college in which the course is offered. The university is under no obligation to recognize courses taken prior to approval of a CPS, as applicable to any degree.

Non-degree-seeking students may register for courses on a space available basis. Several programs, however, restrict availability of classes to degree-seeking students. Contact the advising office in each college for additional information. Undergraduate non-degree-seeking students are restricted to courses at the 1000, 2000, 3000 or 4000 level. The university is under no obligation to recognize credits earned by non-degree-seeking students as applicable to any degree. Non-degree-seeking students are subject to the university's academic standards and do not differ from degree-seeking students in regard to the requirements of any other university policies. Non-degree students who have earned at least 12 credit hours by the end of the current semester will have an advising hold placed to restrict future enrollment. The student and academic college adviser must make appropriate course selections or select a specific degree program before future enrollment will be allowed. Non-degree-seeking students are not eligible for financial aid.

Transient students are classified as non-degree-seeking students and have the same registration restrictions as non-degree students. Additionally, transient students are admitted to the university for one semester of enrollment only and are not eligible for financial aid.

Degree Plans

A student must file a degree plan no later than the end of the second regular semester immediately following the semester in which the student has earned a cumulative total of 45 or more semester hours (including transfer hours). Students who do not file a degree plan within this time frame will have a transcript hold placed on their account. The student will need to consult with an academic adviser as soon as possible to remove the hold. A degree plan is a statement of the course of study requirements that an undergraduate student at an institution of higher education must complete in order to be awarded a degree from the institution. The University of Houston-Clear Lake Advisement Report, which identifies the courses needed to earn a degree, will satisfy this requirement. At each registration, students will be required to acknowledge, prior to registering, that they have a degree plan and the courses they are completing are part of their declared major. This policy is consistent with the provisions of Section 51.9685 of the Texas Education Code.

Availability of Courses

The university does not guarantee that courses listed in this catalog will be offered in any given term or year. Registration for a particular section will be permitted only until available classroom space has been filled.

The university also reserves the right to cancel any course or section which, according to state policies, enrollment is deemed insufficient to split into classes that are over-enrolled and to change the instructor and/or classroom without advance notice.

Class Enrollment

Enrollment in a class is achieved only through proper registration or schedule revision procedures. Instructors receive students' names only by official notice from the Registrar. Students will not receive credit for courses for which they are not registered. Students are responsible for insuring that they have met any prerequisites prior to enrolling in any course. International students (F and J student visa holders) are limited to three credit hours, per semester, of online coursework that may be counted toward full-time enrollment per the Department of Homeland Security. The UHCL catalog provides a complete listing of courses with descriptions that include prerequisites. Course prerequisites are also shown in the class schedule. Students who enroll for courses without having met the prerequisites may be dropped from the course.

Time Conflict Enrollment

Students are not permitted to enroll in two different courses that are scheduled to meet at the same or overlapping times.

Late Registration

Final schedule revisions (drop/add) and late registration will be permitted during the first week of classes of a long semester. The late registration and drop/add period for the summer terms is less than one week. Times and dates will be announced by the Office of the Registrar. No registrations or schedule changes will be permitted after Late Registration. A late registration fee will be charged to students who register during late registration. Students who have not paid by the payment deadline date will be charged a late payment fee. Please review the Academic Calendar published online for all enrollment related dates.

Census Date

As defined by the Texas Higher Education Coordinating Board (THECB), the census date is the date for official enrollment reporting. For long semesters (fall and spring), the census date is the 12th class day for regular sessions and is adjusted in accordance with THECB rules for all other sessions. The census date is the last day to drop without a record and the last day to request a change on residency status for that semester. Official verification of enrollment for a semester will begin on the day following the census date.

Registration Discrepancies

If students become aware of registration discrepancies, (i.e., they are not listed on the official class roster or their class schedules do not reflect the classes being attended), they must contact the Office of the Registrar in order to correct any discrepancies. Only the Office of the Registrar is authorized to make official changes in students' registration status.

Cancellation of Registration

Students may cancel their registration and be entitled to a full refund of tuition and refundable fees if they follow proper procedures through the Office of the Registrar before the first class day of the term. Requests for cancellations may be done through E-Services or in writing and received by the Office of the Registrar prior to the first class day of the term. Such notices may be faxed to the office at 281-283-2530 or submitted via email to registrar@uhcl.edu.

Auditing Courses

Application forms to audit a course may be obtained from the appropriate associate dean's office. A student ID will be required in order to register for classes. Contact the Office of Admissions at 281-283-2500 or admissions@uhcl.edu for assistance if a new student ID needs to be created. Registration to audit a course is on a space-available basis. Individuals may be given permission to audit courses only after the conclusion of the regular registration period and the determination that the student is eligible and space is available. Auditing status provides the privilege of class attendance only and does not include taking examinations, submitting papers, participating in laboratories, field work or receiving a grade in the course. Individuals auditing courses will pay the regular tuition, student services fees, specific course fees and other applicable fees indicated in this catalog. Audit students can make payment for audited classes in person at the Clear Lake and Pearland Student Business Services offices. Audit students must provide the approved Audit Application and completed Campus Audit Permit when making payment. Individuals with audit status will not be given credit status after having registered on an audit basis. Records of individuals who have audited courses will not be maintained by the university.

Fee Waiver for Senior Citizens to Audit Courses

As provided in the Texas Education Code, senior citizens, 65 years of age or older, may audit, on a space available basis any course offered without payment of tuition or fees. Applicants must provide evidence of age to Student Business Services when requesting waiver of fees.

Each college's Academic Advising office will be responsible for assisting senior citizens to determine course availability, approval of instructor, registration procedures and general auditing regulations. Applicants should contact the appropriate academic advising office for the course(s) in which they wish to audit.

[College of Business Advising](#)

[College of Education Advising](#)

[College of Human Sciences and Humanities Advising](#)

[College of Science and Engineering Advising](#)

Academic Record Services

Official student records reside and are maintained in the Office of the Registrar. Students are responsible for insuring the accuracy of their records. Such records include, but are not limited to, personal information, home address and phone number, degree status, career (level), major and grades.

Academic Record Changes

Students wishing to change their major must obtain the Request for Academic Record Change form from their academic adviser. Students wishing to change from degree-seeking to non-degree-seeking status

should contact the Office of the Registrar for the appropriate application. Students wishing to change from non-degree-seeking to degree-seeking status or apply to a certificate program must file a new application with the Office of Admissions. Changes made after the census date will be applicable to the next semester.

Personal Information Changes

University records of students' names and addresses are based on information given on the Application for Admission. Subsequent changes must be reported to the Office of the Registrar. Requests for name changes must be accompanied by supporting documentation. Please refer to the Personal Information Change form available online at www.uhcl.edu/registrar.

Any communication from the university mailed to the name and address or sent to the email address on record is considered to have been properly delivered.

Transcripts

Students may request official copies of their transcript from the Office of the Registrar. Transcript requests can be made online through student E-services, fax or mail. There is no additional charge for transcripts. Transcript requests by fax or by mail must include all of the following:

- The name of the student.
- UHCL student ID.
- A clear copy of a government issued photo ID.
- The number of copies requested.
- The address it is to be mailed to or whether it will be picked up.
- A phone number where the student may be reached.
- The signature of the student whose record is requested.

Requests without a verifiable signatures cannot be processed. Written requests can be mailed to University of Houston-Clear Lake, Office of the Registrar, 2700 Bay Area Boulevard, Houston, Texas 77058 or faxed to 281-283-2530. Telephone requests will not be honored. For same day requests, please visit the Student Assistance Center on the UHCL campus or at the Enrollment Services counter at the Pearland Campus.

Students who have encumbrance holds placed on their permanent records will be denied transcript services until the specific obligations have been met.

UHCL transcripts contain only academic information and course work pursued at UHCL. Requests are limited to 10 copies per request form.

Transcripts from other institutions submitted to UHCL become the university's property and will not be reproduced and/or mailed to other institutions. Students may not obtain copies of their transcripts from other institutions. Transcripts from other institutions are destroyed five years after the last term of attendance.

Enrollment and Degree Verifications

The University of Houston-Clear Lake has authorized the National Student Clearinghouse to provide degree and enrollment verification through their EnrollmentVerify services. Students have access to print a proof-of-enrollment verification online through their E-services account. For more information about the National Student Clearinghouse, please visit www.uhcl.edu/registrar.

Student Notification of Rights under FERPA

The Family Educational Rights and Privacy Act (FERPA) afford eligible students certain rights with respect to their education records. (An "eligible student" under FERPA is a student who is 18 years of age or older or who attends a post-secondary institution.) These rights include:

1. The right to inspect and review the student's education records within 45 days after the day the University of Houston-Clear Lake receives a request for access. A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the school to amend a record should write the school official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.
If the school decides not to amend the record as requested, the school will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the university discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

The school discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University of Houston–Clear Lake in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the board of regents; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the University of Houston–Clear Lake who performs an institutional service or function for which the school would otherwise use its own employees and who is under the direct control of the school with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University of Houston–Clear Lake. The University of Houston–Clear Lake may disclose a student's education records to other institutions if the student seeks or intends to enroll in the other institution and the institution has requested the records.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the school to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202

See the list below of the disclosures that post–secondary institutions may make without consent.

FERPA permits the disclosure of PII from students' education records, without consent of the student, if the disclosure meets certain conditions found in §99.31 of the FERPA regulations. Except for disclosures to school officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, §99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures. A post–secondary institution may disclose PII from the education records without obtaining prior written consent of the student–

- To other school officials, including faculty members, within that school whom the school has determined to have legitimate educational interests. This includes contractors, consultants,

- volunteers, or other parties to whom the school has outsourced institutional services or functions, provided that the conditions listed in §99.31(a)(1)(i)(B)(1) - (a)(1)(i)(B)(2) are met. (§99.31(a)(1))
- To officials of another school where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student's enrollment or transfer, subject to the requirements of §99.34. (§99.31(a)(2))
 - To authorized representatives of the U. S. Comptroller General, the U. S. Attorney General, the U.S. Secretary of Education, or State and local educational authorities, such as a State post-secondary authority that is responsible for supervising the university's State-supported education programs. Disclosures under this provision may be made, subject to the requirements of §99.35, in connection with an audit or evaluation of Federal- or State-supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs. These entities may make further disclosures of PII to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement or compliance activity on their behalf. (§99.31(a)(3) and 99.35)
 - In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid. (§99.31(a)(4))
 - To organizations conducting studies for, or on behalf of, the school, in order to: (a) develop, validate, or administer predictive tests; (b) administer student aid programs; or (c) improve instruction. (§99.31(a)(6))
 - To accrediting organizations to carry out their accrediting functions. (§99.31(a)(7))
 - To parents of an eligible student if the student is a dependent for IRS tax purposes. (§99.31(a)(8))
 - To comply with a judicial order or lawfully issued subpoena. (§99.31(a)(9))
 - To appropriate officials in connection with a health or safety emergency, subject to §99.36 (§99.31(a)(10))
 - Information the school has designated as "directory information" under §99.37 (§99.31(a)(11))
 - To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of §99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (§99.31(a)(13))
 - To the general public, the final results of a disciplinary proceeding, subject to the requirements of §99.39, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the school's rules or policies with respect to the allegation made against him or her. (§99.31(a)(14))
 - To parents of a student regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21. (§99.31(a)(15))

If you have any questions regarding these policies, please feel free to contact the Office of the Registrar at (281)283-2525 or via email at registrar@uhcl.edu.

Policy on Release of Student Records

The Family Educational Rights and Privacy Act (FERPA) of 1974 is a federal law stating (a) that a written institutional policy must be established and (b) that a statement of adopted procedures covering the privacy rights of students be made available. The law provides that institutions will maintain the confidentiality of student education records.

UHCL accords all the rights under the law to students who are declared independent. No one outside the institution shall have access to, nor will the institution disclose, any information from students' education records without the written consent of students except with exceptions permitted under the act. (See Student Notification of Rights Under FERPA).

Within UHCL, only those members individually or collectively acting in students' educational interest are allowed access to student education records. These members include personnel in the Office of the President, Senior Vice President and Provost, Vice President for Administration and Finance, deans, associate deans, Student Services, Computing Services, Student Business Services, Accounting, Career and Counseling Services, Student Involvement and Leadership, Health Center, Financial Aid, members of academic, grade and honesty appeal committees and academic personnel within the limitations of their need to know.

At its discretion, the University of Houston-Clear Lake may provide "directory information" to the general public without student consent.

Directory information is defined by the University of Houston-Clear Lake as follows (within guidelines of the Family Educational Rights and Privacy Act of 1974):

- Student name
- Address
- Telephone number
- University email address
- Date and place of birth
- Major field of study
- Dates of attendance
- Classification
- Hours enrolled
- Date of graduation
- Photographs

- Degrees, awards, and honors received
- Most recent previous educational agency or institution attended
- Participation in officially recognized activities and sports

"Student" means a person who; (a) is currently enrolled at the University; (b) is accepted for admission or readmission to the University; (c) has been enrolled at the University in a prior semester or summer term and is eligible to continue enrollment in the semester or summer term that immediately follows; or (d) is attending an additional program sponsored by the University while that person is on campus. Students who do not wish that public information (including their name, address and phone number) be released can go online at www.uhcl.edu/eservices and select all information to be restricted from release (with the noted exceptions for Release to Publications) according to Family Educational Rights and Privacy Act of 1974 guidelines and policies.

The law provides students with the right to inspect and review information contained in their education records, to challenge the contents of their education records, to have a hearing if the outcome of the challenge is unsatisfactory and to submit explanatory statements for inclusion in their files if they feel the decisions of the hearing panel to be unacceptable. To review records, a student must make a request in writing to the Office of the Registrar. The request must identify the record or records he or she wishes to inspect. In compliance with FERPA, UHCL will provide the student's records for review within 45 days from the day the university receives the request.

Students may delegate access to their records to a third party. Students wishing to give individuals (such as parents) access to their records may complete in person an Authorization to Release Educational Records.

This form can be completed in person at the following offices: Office of Financial Aid, Student Business Services, Student Assistance Center, or Academic advising offices.

Students may request letters of recommendation or evaluations from faculty and staff. Typically, letters of recommendation or evaluations will be very general in nature. These documents will not disclose identifiable information obtained from a student's education record (GPA, grades, etc.). As such, letters of recommendation and evaluations may be provided without a formal written release. However, the student must request the letter of recommendation or evaluation (either verbal or written). If the student requests identifiable information to be disclosed (GPA, grades, etc.) in the document, the student must provide a written release. In addition, faculty and staff members may request a written release for any circumstance if desired. Faculty and staff reserve the right to decline a request to provide a recommendation or evaluation.

Communication with Students

The university-assigned campus email address is the official means of communication for all student-related information and exchanges among academic and administrative offices.

Students should check their UHCL email accounts regularly to receive information from university offices. For information regarding UHCL email, or to log in, go to <http://webmail.uhcl.edu>. Students have the ability to forward their UHCL email account to a preferred email account. Students interested in this option should visit University Computing and Telecommunications' website at www.uhcl.edu/uct.

From time to time, university offices may employ other means of communication. Those avenues of communications include texting, calling and postal services. In some circumstances, automated calling (typically referred to as "robocalls") and texting may be used to notify students of important deadlines.

If students do not wish to receive automated text messages or phone calls, students may call 1-855-502-7867 to "opt-out" of these communications. Students opting out may miss important deadlines which could jeopardize enrollment at the University of Houston-Clear Lake.

For additional information on opting out of automated text messages or phone calls, please contact the Office of the Registrar.

Student Success and Initiatives Division

Academic Advising

University of Houston-Clear Lake is committed to providing the most appropriate and effective academic direction, assistance, and support for all students. At UHCL, there are two types of advisers: transfer advisers and academic advisers. The Office of Transfer Advising offers assistance to prospective and incoming transfer students by providing a variety of pre-admission services and assistance with course selection before the first semester of enrollment. Similarly, the academic advisers housed in the academic colleges onboard and work with freshmen, post-baccalaureate, and continuing students. The college advisers provide comprehensive services to help students through a period of discovery and transition by helping clarify personal and education goals; selecting or confirming their major based on interest and skills; connecting students to available resources designed to ensure success at UHCL; and, assisting with the creation of an academic plan.

College academic advisers are located within each individual college (Human Sciences and Humanities, Science and Engineering, Business, and Education), and off-campus academic advisers (located at the Texas Medical Center and Pearland Campus). The relationship between students and advisers provides

the opportunity to learn more about educational choices and objectives, degree requirements, academic policies and procedures, and university resources. When preparing for an adviser meeting, students should set goals and plan to ask questions, so that academic progress and ultimate attainment of the university degree can be achieved successfully.

What students can expect from advisers:

- Adequate office hours and availability throughout the semester.
- Assistance with registration and course selections.
- Accurate information regarding degree requirements and degree plans.
- Assistance with evaluation of syllabi/course descriptions to determine acceptable coursework.
- Accurate audit of a Candidate Plan of Study (CPS), upon request, to determine the students' progress toward graduation.
- Assistance identifying solutions to academic difficulties.
- Helpful referral to other university resources for additional assistance
- Appropriate confidentiality.
- Respect, support and encouragement.

What is expected of students:

- Attend New Student Orientation.
- Learn who their advisers are and the location of the advising offices.
- Contact adviser before deviating from any requirements specified on the prepared CPS.
- Contact their adviser for assistance **before** the issue becomes urgent.
- Keep informed of their academic progress and their CPS each semester.
- Know the university and college requirements and policies that may affect them.
- Learn and make use of all resources on campus.
- Keep scheduled appointments.
- Follow through on adviser recommendations.
- Be responsible for planning course of study and fulfilling all requirements and procedures.
- Accept ultimate responsibility for personal decisions and actions.
- Respect and comply with deadlines and requests for needed academic documents.

Preparation for a meeting with an adviser:

- Check to make sure the adviser will be available and make an appointment.
- Bring a current degree plan.
- Have a list of questions and/or concerns to promote judicious use of time.
- Remind the adviser of previous discussions.

Advising Offices

Office	Location	Contact
College of Business	Bayou Building, 2111	281-283-3110 busadvoff@uhcl.edu
College of Education	Bayou Building, 1231	281-283-3600 education@uhcl.edu
College of Human Sciences and Humanities	Bayou Building, 1539	281-283-3333 hshadvising@uhcl.edu
College of Science and Engineering	Bayou Building, 3611	281-283-3711 cseadvising@uhcl.edu
Transfer Advising	Student Services and Classroom Building, 1206	281-283-3068 transfer@uhcl.edu

More information on Academic Advising can be found at: www.uhcl.edu/academics/advising.

Accessibility Support Center

The Accessibility Support Center provides institution-wide advisement, consultation, and training on disability-related topics, collaborates with partners to identify and remove barriers to foster an all-inclusive campus, and provides individual services and facilitates accommodations to students with disabilities. The Accessibility Support Center promotes each student's learning experience by facilitating accessible programs and services for and fostering self-advocacy skills within students with disabilities. Accommodations include, but are not limited to, testing accommodations, alternative formats, assistive technologies, classroom access, and sign language interpreters. To be eligible for services, a student must submit the online application form, speak with a staff member about their disability, and provide appropriate documentation which validates their request.

For more information on the Accessibility Support Center, contact:

Phone	281-283-2648
Email	disability@uhcl.edu
Web	www.uhcl.edu/accessibility-support-center
Location	SSCB 1302

Math Center

The Math Center provides private and drop-in tutoring services to students enrolled in math or physics courses. The center provides a fully equipped study space, with enough whiteboards and space to help

you work and learn. In addition, the center also provides a program for first-generation students called "First to Succeed," STEM related events, and supplemental instruction.

Students wishing to use the center's services may do so from 8 a.m. – 6 p.m. in Bayou 2127, or from 4 p.m. – 9 p.m. in the STEM building study lounges.

For more Math Center information, contact:

Phone	281-283-2460
Email	cox@uhcl.edu
Web	www.uhcl.edu/math-center
Location	Bayou 2127

Student Success Center

The Student Success Center is a comprehensive academic resource for the UHCL student community, which includes peer tutoring, supplemental instruction, and academic coaching. The focus of the center is to help students enhance their academic skills in their current courses; whether, seeking remedial support, or needing assistance with maintaining good standing. Additionally, the Center helps students manage their daily responsibilities through personalized guidance in skills including effective study habits, and efficient time management.

The Student Success Center works cooperatively with the Writing Center, Math Center, Disability Services, Career Services, Counseling Services, academic departments, students, faculty and staff in an effort to maintain a strong consortium of resources aimed at increasing student success, retention and persistence. The Center is open and free of charge to all UHCL students.

For more Student Success Center information, contact:

Phone	281-212-2643
Email	studentsuccesscenter@uhcl.edu
Web	www.uhcl.edu/student-success-center
Location	SSCB 3102

Testing Center

The Testing Center is a student-centered and community-minded department that exists to provide a wide variety of testing services that assist students, staff and community in reaching their educational goals.

The Testing Center is accredited by the National College Testing Association (NCTA), and is a certified center for PearsonVue, Certiport, ETS, CASTLE, Kryterion, and CollegeBoard. The Center provides a quiet, secure environment with welcoming staff and fast check-in/check-out processes to ensure the testers are able to focus entirely on their testing experience. For a complete list offered tests please refer to the testing center website below.

For more Testing Center information, contact:

Phone	281-212-3080
Email	uhcltesting@uhcl.edu
Web	www.uhcl.edu/testing
Location	Bayou 1408

Transfer Advising

UHCL is committed to providing transfer students with a seamless transition between their former academic institution(s) and UHCL. Transfer advisers provide individualized advising to students and ensure they are selecting the right courses at their current community college or university for a hassle-free transition to UHCL in the near future.

The transfer advisers are dedicated to assisting newly admitted transfer students throughout the initial enrollment process as well. In an effort to promote and foster an environment of academic success, UHCL has implemented a mandatory Transfer Advising Program (TAP).

All new transfer students must attend an advising session as part of the TAP, ensuring a strong start to their academic journey here. The academic transfer advisers work collaboratively with new students to develop a realistic course load, and recommend appropriate classes for the student's chosen major in the initial semester. Students are then seamlessly transitioned from the transfer adviser to the college adviser of their chosen major.

For more Transfer Advising information, contact:

Phone	281-283-3068
Email	transfer@uhcl.edu
Web	www.uhcl.edu/transfer-advising
Location	SSCB 1206

Writing Center

In the Writing Center, students, faculty, staff, and alumni can work with trained tutors on their writing projects. Tutors collaborate with writers as they analyze assignments and audiences, revise documents by clarifying ideas and structure, and learn stylistic conventions and editing strategies. The Writing Center offers one-on-one tutoring both face-to-face and online on UHCL's Clear Lake and Pearland campuses, as well as a variety of writing-related workshops, tip sheets, and other resources.

For more Writing Center information, contact the Writing Center:

Phone	281-212-2910
Email	writingcenter@uhcl.edu
Web	www.uhcl.edu/writing-center
Location	SSCB 2105

Tuition and Fees

The tuition and fees information provided is not intended to be comprehensive and is subject to change pending action taken by the Texas Legislature or University of Houston Board of Regents. Changes become effective on the date of enactment. The following information should be used only as a guide for estimating tuition and fees charges.

Email as Official Communication

The university-assigned campus email address is the official communication vehicle for all student information and exchanges among academic administrative offices. The following notifications will be sent via email:

- 1098T
- Set Aside

Students should check their UHCL email accounts regularly to receive information from Student Business Services as well as other university offices. For information regarding UHCL email, or to log in, go to <http://webmail.uhcl.edu>.

Students have the ability to forward their UHCL email account to a preferred email account. Students interested in this option should visit University Computing and Telecommunications' website at www.uhcl.edu/uct.

Definitions and Regulations

Students are responsible for knowing the current financial regulations of the university. Current regulations are applicable to all students regardless of the date of enrollment. Interpretation or explanations contrary to the regulations of this catalog are not binding upon the university. The university reserves the right to modify any statement as required by unforeseen conditions or by legislative actions.

Fixed Tuition Plan

The Fixed Rate Tuition is a plan available only to undergraduate student admitted to and enrolled in a degree granting course of study at University of Houston-Clear Lake. The plan is available to resident and non-resident undergraduate students and will provide student a fixed tuition rate during the term of their agreement with UHCL. The intent and goal of the plan is to provide tuition predictability. Consequently, there is no guarantee that student will realize any tuition savings by participating in the plan.

Tuition

Students are assessed tuition according to residence classification and the number of semester credit hours for which they register, subject to the statutory provisions of House Bill No. 43, 62 Legislature:

- Residents of Texas will be charged undergraduate tuition at the rate of \$50 per semester credit hour for students.
- Non-residents of Texas and foreign students will be charged undergraduate tuition at the rate of \$459 per semester credit hour for students.

An alien who has been lawfully admitted for permanent residence in the United States shall be considered for residency based on the same regulations in effect for U.S. citizens. Aliens who are present in the United States on a temporary or student visa shall not be eligible for classification as residents.

Tuition Residence Regulations and Appeals

It is important for students to know whether they will be classified as residents of the state of Texas. Students who do not qualify as bona fide residents at the time they register must pay the non-resident tuition fee.

An official determination of the residence status of students is made in the Office of Admissions at the time the application for admission and support documents are received. If students expect a change in residence status prior to first registration, this should be indicated on the application. If a change in residence status occurs after submitting the application, students must inform the Office of Admissions. Students have a continuing responsibility to register under and to maintain the correct residence classification.

If there is any question concerning eligibility for classification as a resident of Texas at the time of registration, or any time thereafter, it is the responsibility of students to consult with the Office of Admissions. All requests for reclassification should be submitted at least 30 days prior to the registration period in question, but no later than the census date. Requests or documents received after the census date of a given semester will be considered for the next semester.

Students who believe they have been misclassified may petition the Office of Admissions for reclassification. Students may be required to furnish evidence in support of an appeal.

General Residency Requirements

Summarized below are the general rules for meeting eligibility requirements in the state of Texas. Exceptions to these rules for military personnel, teachers of higher education and their dependents, scholarship recipients and other special programs are discussed in an online booklet titled "Rules and Regulations for Determining Residence Status" published annually by the Texas Higher Education Coordinating Board. The information may be viewed online through www.collegeforalltexans.com in the Get All The Facts section.

Residence of a Minor or Dependent: An individual who is 18 years of age or under or is a dependent and whose family has not resided in Texas for the 12-month period immediately preceding the date of registration shall be classified as a non-resident student regardless of whether he/she has become the legal ward of residents of Texas or has been adopted by residents of Texas while he/she is attending an educational institution in Texas, or within a 12-month period before attendance, or under circumstances indicating that the guardianship or adoption was for the purpose of obtaining status as a resident student. The legal residence of minors or dependent children is usually that of the parent with whom the individual spends the principal amount of time. Upon divorce of parents, residency is based on the residence of the parent who has legal custody or has claimed the minor for federal income tax purposes both at the time of enrollment and for the tax year preceding enrollment.

Individuals over 18: An individual who is 18 years of age or older, who is a legal U.S. permanent resident, who has come from outside Texas and who is gainfully employed in Texas for a 12-month period immediately preceding registration in an educational institution shall be classified as a resident student as long as he/she continues to maintain a legal residence in Texas. If such 12-month residence, however, can be shown not to have been for the purpose of establishing legal residence in the state but to have been for some other purpose, the individual is not entitled to be classified as a resident. A student enrolling in an institution of higher education prior to having resided in the state for 12 months immediately preceding time of enrollment will be classified as non-resident for tuition purposes.

Fees

Student Service Fee

The Student Service Fee, as authorized by state law, is required of all students. The income from this fee supports recreational activities, health and hospital services, artist and lecture series, cultural entertainment series, student publications, student government and other student services as authorized by state law.

Reinstatement Fee

The reinstatement fee is charged to students who are approved for reinstatement after being dropped/withdrawn from classes for non-payment of tuition and fees.

Credit Card Processing Fee

Texas Education Code Section 54.5011 authorizes institution to charge an amount reasonable and necessary to reimburse the University, for expenses incurred by the university in processing credit card transaction or a debit card that is processed as a credit card. The current credit card processing fee rate is 1.47% and will apply to payments that are related to student tuition and fees only.

Recreation and Wellness Facility Fee

This fee may be used only for the purpose of financing, constructing, operating, maintaining, improving, and equipping a recreation and wellness facility and for the operating recreation and wellness programs at the University of Houston-Clear Lake.

SOAR Fee

New students who are admitted for the first time in college or who are admitted to the university with less than 30 semester credit hours will be required to attend an orientation session titled Student Orientation and Registration (SOAR). Each student will be required to pay \$60 at the time they register for the orientation. Guests will be required to pay \$20 per guest. This fee is effective beginning with the spring 2016 term.

Orientation Fee

This one time fee funds costs for the new student orientation programs.

Tuition Designated Fee

The Tuition Designated Fee is required of all students, graduate or undergraduate, resident or nonresident, enrolling in higher education institutions. As authorized by state law House Bill 3015 in the 78th Legislature in 2003, the university governing boards have been authorized the flexibility to "charge any student an amount designated as tuition that the governing board considers necessary for the effective operation of the institution."

Parking Fee

A parking fee of \$87 for an annual permit, or \$52 for each fall and each spring, and \$37 for the summer semester, will be assessed to students who operate motor vehicles on the campus or on properties leased by the university. Proof of ownership (current license receipts or titles for the vehicles) may be required. Refer to the Parking and Traffic Regulations page at www.uhcl.edu/parking for additional information.

Any vehicle not having a valid UHCL permit will be ticketed unless special arrangements have been made with the Parking Management Office to park on campus without such permit.

Lost or stolen parking permits must be reported at <https://uhclparking.t2hosted.com/cmn/index.aspx> so that a replacement permit may be purchased. Lost or stolen permits may be purchased at a cost of \$20 at <https://uhclparking.t2hosted.com/cmn/index.aspx>.

Academic Record Fee

The proceeds from the Academic Record Fee shall be used to cover the costs of maintaining online registration system components and cover the costs of university publications and reproduction of transcripts.

Extended Access and Support Fee

The University of Houston Board of Regents has authorized the UH System universities to charge a fee to support Distance Education and Off-Campus Instructional programs. The revenue from the Extended Access and Support Fee will support these programs, including Web-enhanced, Web-based courses, and marketing. The charge will be \$7 per credit hour, up to a maximum of \$63 per semester for all students registering for classes.

Information Resource Fee

The Information Resource Fee will be used to provide operational and personnel support and resources for the Neumann Library and for the UHCL Pearland Campus Library. The libraries provide students with a learning environment that includes instructional services and research material in print, video, and

electronic forms. Additionally this fee will be used to provide students with access to computing facilities for activities and uses that are part of the regularly scheduled academic functions of the university and which are related to instructional activities, lectures, homework projects and provisions of the learning environment.

Student Center Fee

A fee charged for the sole purpose of financing, constructing, operating, maintaining and improving a student center for UHCL. This fee will pay for expanded student organizational space, more informal space for students (i.e., lounges, study rooms, gathering spaces), multifunctional space, space for meditation, recreational/exercise facilities, maintenance and operation of the new building and renovations to existing spaces.

Designated Differential Tuition

The Designated Differential Tuition (DDT) is charged separately by the colleges in order to improve and enhance resources available to students.

The College of Business uses its DDT to hire full-time faculty to facilitate meeting the faculty sufficiency and qualifications standards for AACSB International business college accreditation.

The College of Human Sciences and Humanities uses its DDT to increase and improve resources available by hiring more full-time faculty and improving the instruction of adjunct faculty.

The College of Education uses its DDT to maintain and improve programs by hiring additional faculty and providing student financial support.

The College of Science and Engineering uses its DDT to hire more full-time faculty and teaching assistants and to buy and maintain state of the art equipment for use in labs and classrooms.

Incidental Fee

A fee may be charged to students or prospective students to cover the cost of providing materials or services which are not the subject of a charge under any other statutory authorization. Incidental fees may be course related or non-course related.

Co-Op Fee

A fee that may be assessed to support additional requirements associated with cooperative education.

Practicum Fee

A fee that may be assessed to support field work at off-campus locations.

Malpractice Fee

A fee that may be assessed to pay for insurance to support students at off-campus locations.

Tuition Recovery Fee

Undergraduate students, who were first-time freshmen between fall 1999 and summer 2006 that exceed more than 45 semester credit hours beyond their state approved degree plan and undergraduate students, who are first-time freshmen beginning fall 2006 or subsequent terms that exceed more than 30 semester credit hours beyond their state approved degree plan, are subject to a tuition recovery fee of \$130 per credit hour to cover the student's educational costs. For more information, refer to Excessive Hours.

Three-peat Fee for Undergraduate Hours

An additional tuition amount of \$130 will be charged for each undergraduate credit hour for a course taken for the third time at UHCL (\$390 per 3 hour course). This fee also applies to any International or Non-Resident student who pays Texas resident tuition rates.

International Education Fee

The International Education Fee of \$4 is assessed to each student to provide scholarship support for those who participate in education abroad programs.

BUS Computer Support Fee

This fee supports labs for dedicated College of Business use.

Schedule of Charges and Special Fees

The following Schedule of Charges and Special Fees shall apply, where applicable, to all students at UHCL. These tuition and fee charges are assessed according to the number of semester credit hours for which students enroll and are payable at the time of registration. Students are not registered and are not entitled to university privileges until their tuition and fees have been paid in full. If payment is made by check or money order, such check or money order must be payable to the University of Houston-Clear Lake.

The charges quoted are those authorized at the time of publication of this catalog but are subject to change without notice as necessitated by university or legislative actions. Questions should be directed to Student Business Services.

Special Fees

Fee	Amount In U.S. Dollars
Academic Record Fee	29

Fee	Amount In U.S. Dollars
Certificate, Teacher	78
Certificate, Professional	78
Cooperative Education	75
Differential Designated Tuition (BUS) - Undergraduate	13
Differential Designated Tuition (HSH) - Undergraduate	5
Differential Designated Tuition (CSE) - Undergraduate	5
Extended Access Fee	7/hr - 63/max
Duplicate Fee Statement, each	3
Duplicate Diploma	25
Excessive Undergraduate Hours - 3 Peat (\$390 per 3 hour course)	130/hr
Field trip, each, when required for any given course; variable amount sufficient to defray the cost of the trip.	Variable
Former Student File Reactivation Application (not enrolled for at least one year)	45
Graduation Application (includes diploma but not cap/gown)	80
Information Resource Fee	28/hr - 336/max
International Education Fee	4
International Student Insurance (annual)	2815
International Student Application/Evaluation	75
International Student Records Processing (per semester)	65
Internship	30 - 72
Laboratory, per course	Variable
Late Payment (per semester)	50/ per deadline- 100/max
Late Registration (per semester)	50
Matriculation (for withdrawal prior to first class day)	15
New Student Orientation	50/1-time
Parking (annual)	87
Parking (per long term)	52
Parking (summer)	37
Recreation and Wellness Center Fee	110 per term
Reinstatement Fee	200
Returned check charge, per check	20
SOAR (Student Orientation, Advising, Registration) Fee	60 for student/20 per guest
Special course fee, when required; an amount sufficient to defray the cost of materials and/or supplies required. May include malpractice insurance.	Variable

Fee	Amount In U.S. Dollars
Student Center Fee (per semester)	30
Student Service Fee	42/hr-252 max
Tuition Recovery	130
Undergraduate Studies Application	45
Examination Fees	Variable

Additional Special Fees by College

Business

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ACCT	4332	Financial Information Systems	1999	Special	2003-F	45
ACCT	4345	Software Applications in Auditing	2004	Special	2004-F	45
ACCT	4348	Intro to Data Analytics in Accounting	2021	Special	2020-F	45
ACCT	4379	Internship in Accounting	2000	Practicum	2000-F	75
ACCT	5332	Accounting Information Systems	1999	Special	2003-F	45
ACCT	5333	Databases in Business	2000	Special	2005-F	60
ACCT	5334	Advanced Database Appl.	2000	Special	2005-F	60
ACCT	5335	Info Sys. Audit and Security	2000	Special	2003-F	45
ACCT	5336	System Analysis and Design	2000	Special	2003-F	45
ACCT	5438	Fundamentals of Data Analytics in Acct	2021	Special	2020-F	65
ACCT	6739	Internship in Accounting	2000	Practicum	2000-F	75
BAPA	4195	Coop Ed. In Bus. & Public Adm.	1990	Co-op	2011-F	85
BAPA	4395	Coop Ed. In Bus. & Public Adm.	1998	Co-op	2011-F	85
BAPA	5915	Coop Ed. In Bus. & Public Adm.	1990	Co-op	2011-F	85
BAPA	5935	Coop Ed. In Bus. & Public Adm.	1998	Co-op	2011-F	85

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
HADM	6539	Grad Residency in Healthcare A.	2006	Practicum	2006-F	75
ISAM	1305	Business Computer Applications	2021	Special	2020-F	45
ISAM	3303	Info Systems for Mgmt	1999	Special	2003-F	45
ISAM	3304	Intro. to Business Programming	2003	Special	2003-F	45
ISAM	3314	Applications Dev with Java	2012	Special	2012-F	45
ISAM	3331	Intro to Business Databases	1999	Special	2005-F	60
ISAM	3332	Appl. Program. w Visual Basic	2003	Special	2003-F	45
ISAM	3333	Applications Dev with C+	2016	Special	2016-F	45
ISAM	4331	Internet Applications in Business	2003	Special	2003-F	45
ISAM	4332	Advanced Internet Apps. In Bus	2007	Special	2007-F	45
ISAM	4360	Advanced Business SprSheet Appl Dev	2012	Special	2012-S	45
ISAM	4362	Advanced Business Databases	1999	Special	2005-F	60
ISAM	4365	Analysis & Design of Bus. SS	1999	Special	2003-F	45
ISAM	4366	Introduction to Network Mgmt.	1999	Special	2005-F	60
ISAM	4367	Advanced Network Protocols	2007	Special	2007-F	60
ISAM	4391	Selected Topics in Info Syst.	1999	Special	2003-F	45
ISAM	5030	Fund of Business Programming	1999	Special	2010-F	60
ISAM	5329	Mgt of Information Technology	2012	Special	2012-S	65
ISAM	5330	Management Information System	2003	Special	2010-F	60
ISAM	5331	Databases in Business	1999	Special	2010-F	65
ISAM	5332	Data Warehousing and Data Min.	2007	Special	2010-F	65
ISAM	5333	Business Data Communication	1999	Special	2010-F	60

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ISAM	5335	Tools for Business Syst. Dev.	1999	Special	2010-F	60
ISAM	5337	Internet for Managers	1999	Special	2010-F	60
ISAM	5338	Electronic Commerce Tech.	2003	Special	2010-F	60
ISAM	5339	Mgmt of Business Computers	1999	Special	2010-F	65
ISAM	5430	Advanced Application Dev w/C#	2013	Special	2013-F	65
ISAM	5431	ERP System Concepts & Practices	2012	Special	2012-S	65
ISAM	5437	Wireless Networks	2012	Special	2012-F	65
ISAM	5439	Computer Network Security	2003	Special	2010-F	65
ISAM	5531	Client-Server Int Tech for Mgr.	1999	Special	2010-F	60
ISAM	5631	Management Information System	1999	Special	2010-F	60
ISAM	5632	Advanced Database Appl.	1999	Special	2010-F	65
ISAM	5633	Oracle Database Administration	2003	Special	2010-F	65
ISAM	5635	System Analysis and Design	1999	Special	2010-F	60
ISAM	5636	Advanced Computer Networking	1999	Special	2010-F	65
ISAM	5637	Infor. Sys. Project Management	2003	Special	2010-F	65
ISAM	5638	Advanced Internet Applications	1999	Special	2010-F	60
ISAM	5639	SQL Server Database Administration	2005	Special	2010-F	65
ISAM	5731	Info. Sys. Audit & Security	1999	Special	2010-F	60
ISAM	5732	Fundamentals of Windows Admin	2008	Special	2010-F	60
ISAM	5733	Adv. Windows Admin	2008	Special	2010-F	60
ISAM	5734	Advanced Data Analytics in ERP System	2021	Special	2020-F	65
ISAM	5735	Data Analytics Application Development	2021	Special	2020-F	65

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ISAM	5931	Research Topics in Info Sys	1999	Special	2010-F	60
MGMT	5133	Teamwork & Leadership Skills	2004	Special	2004-F	45

Education

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ADSU	5010	Professional Prep Seminar	2003	Special	2003-F	15
ADSU	6739	Graduate Practicum	1997	Practicum	1996-F	72
ADSU	6030	Intro to Educational Leadership	2009	Special	2020-F	125
ADSU	6533	Appraisal of Teaching	2009	Special	2016-F	125
COUN	4309	Practicum	2019	Practicum	2018-F	72
COUN	4309	Practicum	2019	Malpractice	2018-F	16
COUN	5010	Professional Prep. Seminar	2003	Special	2003-F	15
COUN	6232	Asses. Issues for Counselors	2019	Special	2018-F	45
COUN	6334	Career Develop & Counseling	2001	Special	2003-F	45
COUN	6534	Dvlpmntl School Couns Prgms	2003	Special	2003-F	35
COUN	6639	Counseling Practicum I	2019	Practicum	2018-F	72
COUN	6639	Counseling Practicum I	2019	Malpractice	2018-F	16
COUN	6738	CMHC Practicum II	2019	Practicum	2018-F	72
COUN	6738	CMHC Practicum II	2019	Malpractice	2018-F	16
COUN	6739	Counseling Practicum II	1997	Practicum	2004-F	72
COUN	6838	CMHC Practicum III	2019	Practicum	2018-F	72
COUN	6838	CMHC Practicum III	2019	Malpractice	2018-F	16
COUN	6839	Counseling Practicum III	2014	Practicum	2015-S	72
ECED	4302	Dvlpg Competence in Yng Children	2014	Special	2014-F	30
ECED	4305	Literacy Develop Birth-Age 5	2019	Special	2018-F	20

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ECED	4307	Math&Science for Yng Children Birth -5	2019	Special	2018-F	20
ECED	4308	Creativity in Early Childhood	2019	Special	2018-F	20
ECED	4311	Reading Dev. in Young Children	2019	Special	2018-F	30
ECED	4314	Obsrvtnl/Devmntl Assmnt Yng of	1995	Special	2002-F	30
ECED	4320	Play	2019	Special	2018-F	20
ECED	4325	ECPD Management I	2021	Special	2020-F	575
ECED	4327	ECPD Management II	2021	Special	2020-F	575
ECED	4329	ECPD Management III	2021	Special	2020-F	575
ECED	4332	Early Childhood Special Ed	2019	Special	2018-F	20
ECED	4333	Adv Early Childhood Special Ed	2019	Special	2018-F	20
ECED	4377	Practicum I	2010	Practicum	2011-S	72
ECED	5032	Community Prog. for Yng Children	2019	Special	2018-F	10
ECED	5038	Creative Arts in Early Childhood	2019	Special	2018-F	20
ECED	5133	Math&Problem Solving for Yng Chil	2019	Special	2018-F	20
ECED	5331	Eval of Dev. of Yng Children	2019	Special	2018-F	30
ECED	5332	Infants & Yng Children w/Exception	2019	Special	2018-F	20
ECED	5333	Adv. Studies of Infants & Yng Childre	2019	Special	2018-F	20
ECED	5336	Admin and Mngt Programs for Yng Children I	2021	Special	2020-F	875
ECED	5337	Admin and Mngt Programs for Yng Children II	2021	Special	2020-F	700
ECED	5737	Practicum: Infants&Yng Children w/ Spec. Needs	2011	Practicum	2011SM	72
ECED	6739	Early Childhood Ed. Practicum	1997	Practicum	1996-F	72
EDLS	7010	Superintendent Prof. Prep Seminar	2012	Special	2012-S	15

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
EDLS	7837	Superintendent Practicum	2009	Practicum	2009-F	72
INST	3313	Survey of Instruc. Technologies	2010	Special	2016-F	30
INST	6031	Applications of Technology	2010	Special	2010-F	10
INST	6739	Instructional Technology Practicum	1997	Practicum	1996-F	72
LLLS	4312	Literary Issues of Sec. Students	2003	Special	2003-F	30
LLLS	4332	Diag and Prescriptive Reading	1994	Special	2002-F	30
LLLS	4344	Reading & Writing for EC-6	1998	Special	2002-F	30
LLLS	4346	Teaching Lang Arts in the 4-8 Class	2014	Special	2014-F	30
LLLS	4364	Methods in Sec. Engl/ Lang Arts	2003	Special	2003-F	30
LLLS	4379	Practicum in Clinical Reading	1997	Practicum	1996-F	72
LLLS	5010	Prof. Prep Seminar for Reading Spec	2012	Special	2012-S	15
LLLS	5131	Integrating the Language Arts	2003	Special	2003-F	30
LLLS	5135	Dev. Reading Prgrms for Sec. Sch	2003	Special	2003-F	30
LLLS	5634	Teaching Method for Eng,Reading,L	2007	Special	2007-F	30
LLLS	5635	The Teaching of Writing I	2003	Special	2003-F	30
LLLS	6331	Sociolinguistic Appl to Reading	2003	Special	2003-F	30
LLLS	6639	Ldship/Clin Pract/ Assmt of Lit	1997	Practicum	1996-F	72
LLLS	6732	Assess and Remed of Reading	1994	Special	2002-F	30
LLLS	6739	School Library Practicum	1997	Practicum	1996-F	72
SILC	4312	Content Based ESL	2014	Special	2014-F	30
SILS	5012	Professional Prep Seminar in School Librarians	2021	Special	2020-F	15

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
SILS	6839	Practicum in Sch Literacy	2021	Practicum	2020-F	72
SPED	4311	Assessment in Special Edu	1998	Special	2002-F	30
SPED	4313	Individualizing Inst. for Students w/	2014	Practicum	2014-F	72
SPED	4332	Early Childhood Special Educ	2019	Special	2018-F	20
SPED	4333	Adv Early Childhood Special Ed	2019	Special	2018-F	20
SPED	4377	Practicum in Sp. Ed. for Yng. Childr	2014	Practicum	2014-F	72
SPED	5010	Prof. Prep Seminar for Special Educ	2012	Special	2012-S	15
SPED	5131	Educ Asses of Exceptionalities	1997	Special	2002-F	30
SPED	5133	Practicum in Inclusive Edu	2012	Practicum	2012-S	72
SPED	5332	Exceptionalities in Infants&Young	2019	Special	2018-F	20
SPED	5333	Exceptionalities in Infants&Young	2019	Special	2018-F	20
SPED	5737	Practicum:Infants&Yng Children w/	2011	Practicum	2011-SM	72
TCED	4100	Senior Seminar EC-12	2003	Special	2003-F	15
TCED	4102	Senior Seminar II	2007	Special	2007-F	15
TCED	4103	Sr Seminar for Second. Soc Studies	2012	Special	2012-S	15
TCED	4321	Social Studies Methods for EC-6	2021	Special	2002-F	25
TCED	4322	Science Methods for EC-6	2019	Special	2018-F	25
TCED	4331	Soc. Studies Methods for Gr 4-8	2021	Special	2020-F	25
TCED	4323	Mathematics Methods for EC-6	2019	Special	2018-F	15
TCED	4331	Soc. Studies Methods for Gr 4-8	2003	Special	2003-F	25
TCED	4332	Special Methods for Grs 4-8	2019	Special	2018-F	25
TCED	4333	Mathematics Methods for Gr 4-8	2019	Special	2018-F	15

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
TCED	4361	Methods in Scndry Soc Studies	2021	Special	2002-F	25
TCED	4362	Methods in Secondary Science	2019	Special	2018-F	25
TCED	4363	Methods in Secondary Math	2019	Special	2018-F	15
TCED	4378	Preservice Internship I	2019	Teaching	2018-F	85
TCED	4978	Preservice Internship II	1999	Teaching	2015-F	350
TCED	5010	Professional Prep Seminar	2003	Special	2003-F	15
TCED	5231	Tchg Soc Studies In Elem School	2021	Special	2002-F	25
TCED	5232	Teaching Science in EC-6	2019	Special	2018-F	25
TCED	5233	Teaching Math in EC-6	2019	Special	2018-F	15
TCED	5234	Social Studies Methods for Sec	2003	Special	2003-SP	25
TCED	5235	Science Methods for the Sec Grades	2019	Special	2018-F	25
TCED	5236	Mathematics Methods for the Sec	2019	Special	2018-F	15
TCED	5332	Teaching Science in 4-8 Clsrm	2019	Special	2018-F	25
TCED	5333	Teach. Mathematics in 4-8 Clsrm	2019	Special	2018-F	15
TCED	6031	Applications of Tech. in the Clsrm	2010	Special	2016-F	30
TCED	6735	Seminar in Environmental Ed.	2003	Special	2003-F	30
TCED	6739	Curriculum & Instruction Practicum	2010	Practicum	2010-S	72
TCED	6769	Clinical Teaching	2021	Practicum	2020-F	85

Human Sciences and Humanities

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ANTH	3311	Contemporary Cultural Anthropology	1999	Special	1999-F	15

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ANTH	3330	Interdisciplinary Perspectives in Global Health	2021	Teaching	2020-F	15
ANTH	3334	Human Sex, Culture and Health	2021	Teaching	2020-F	15
ANTH	3357	Topics in African Studies	2021	Teaching	2020-F	15
ANTH	3358	Topics in Middle East Studies	2019	Special	2018-F	15
ANTH	3361	Anthropology of Food	2013	Special	2013-F	15
ANTH	3362	Medicine, Bodies & Culture	2019	Special	2018-F	15
ANTH	4301	Studies in Cultural Diversity	2019	Special	2018-F	15
ANTH	4333	Peoples of Mexico & Central America	2019	Special	2018-F	15
ANTH	4341	Gender & Sexuality Gbl Perspectives	2019	Special	2018-F	15
ANTH	4334	Native Americans	2019	Special	2018-F	15
ANTH	4343	Anth Persp on World Religions	2019	Special	2018-F	15
ANTH	4352	World Prehist and Archeology	1999	Special	1999-F	15
ANTH	4391	Selected topics in Anthropology	2018	Special	2018-F	65
ANTH	5538	Cultures of the Middle East	2019	Special	2018-F	15
ARTS	1311	Design Foundations	2016	Special	2016-F	65
ARTS	1314	Dance Appreciation	2021	Special	2020-F	65
ARTS	1316	Drawing Foundations	2016	Special	2016-F	65
ARTS	1325	Drawing for Non-Art Majors	2014	Special	2014-F	65
ARTS	1371	Photography for Non-Art Majors	2014	Special	2014-F	65
ARTS	2316	Painting	2018	Special	2018-F	65
ARTS	2371	Digital Photography I	1999	Special	2012-F	65
ARTS	2379	Art and the Child	2018	Special	2018-F	65
ARTS	3310	Sculpture	2014	Special	2014-F	65
ARTS	3320	Ceramics	2001	Special	2012-F	65
ARTS	3331	Intermediate Drawing	1991	Special	2008-F	65

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ARTS	3333	Life Drawing	2010	Special	2018-F	65
ARTS	3335	Intermediate Painting	1998	Special	2008-F	65
ARTS	3340	Intermediate Printmaking	1998	Special	2010-F	65
ARTS	3341	Fibers	2014	Special	2014-F	65
ARTS	3352	Traditional Photography	2001	Special	2010-F	65
ARTS	3360	Graphic Design	1989	Special	2012-F	65
ARTS	3361	Advanced Web Design	2014	Special	2014-F	65
ARTS	3365	3D Computer Modeling	2014	Special	2014-F	65
ARTS	4132	Independent Study in Art	2021	Special	2020-F	65
ARTS	4189	Independent Study in Art	2016	Special	2016-F	65
ARTS	4300	Methods in Elem Art Ed	2010	Special	2012-F	65
ARTS	4301	Methods in Second Art Ed	2010	Special	2012-F	65
ARTS	4302	Crafts Design and History	1998	Special	2012-F	65
ARTS	4310	Advanced Sculpture	1998	Special	2010-F	65
ARTS	4311	Process Sculpture	2016	Special	2016-F	65
ARTS	4320	Advanced Ceramics	1998	Special	2012-F	65
ARTS	4321	Raku	2001	Special	2012-F	65
ARTS	4331	Advanced Drawing	1991	Special	2008-F	65
ARTS	4332	Advanced Life Drawing	2019	Special	2018-F	65
ARTS	4335	Advanced Painting	1998	Special	2008-F	65
ARTS	4339	Silkscreen Printing	2021	Special	2020-F	65
ARTS	4340	Advanced Printmaking	1998	Special	2010-F	65
ARTS	4341	Fibers Studio	1998	Special	1997-F	65
ARTS	4348	Information Design	1989	Special	2014-F	65
ARTS	4350	Advanced Photography	2001	Special	2010-F	65
ARTS	4351	Digital Photography II	2001	Special	2012-F	65
ARTS	4352	Digital Video	2001	Special	2012-F	65

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ARTS	4358	History and Theory of Graphic Design	2014	Special	2014-F	65
ARTS	4363	Advertising Design	1989	Special	2012-F	65
ARTS	4365	3D Animation	2014	Special	2014-F	65
ARTS	4368	Graphic Novel Design	2018	Special	2018-F	65
ARTS	4369	Illustration	1989	Special	2012-F	65
ARTS	4370	Gender and Identity in the Visual Arts	2014	Special	2014-F	65
ARTS	4371	Renaissance Art	2014	Special	2014-F	65
ARTS	4372	Studies in Western European Art	2014	Special	2014-F	65
ARTS	4373	Impressionism	2014	Special	2014-F	65
ARTS	4374	Modern Art	2014	Special	2014-F	65
ARTS	4375	Contemporary Art	2014	Special	2014-F	65
ARTS	4376	Studies in Non-Western Art	2014	Special	2014-F	65
ARTS	4377	Topics in Contemporary Art	2014	Special	2014-F	65
ARTS	4380	Typeface Design	2021	Special	2020-F	65
ARTS	4389	Independent Study in Art	1991	Special	2012-F	65
ARTS	4390	Senior Seminar in Art	2007	Special	2012-F	65
ARTS	4391	Selected Topics in Art	2001	Special	2008-F	65
ARTS	5037	Studies in Art History	2014	Special	2014-F	65
ARTS	5038	Crafts Design and History	1998	Special	2012-F	65
ARTS	5231	Sculpture and Ceramic Studio	1998	Special	2012-F	65
ARTS	5331	Painting-Drawing-Printmaking	2000	Special	2008-F	65
ARTS	5631	Weaving Studio	2014	Special	2014-F	65
ARTS	5931	Research Topics in Art	2014	Special	2014-F	65
ARTS	5939	Independent Study in Art	1991	Special	2012-F	65
COMM	1307	Introduction to Mass Communication	2005	Special	2005-F	5
COMM	1315	Public Speaking	2016	Special	2020-F	4
COMM	3360	Web Design	2014	Special	2014-F	65

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
COMM	3361	Advanced Web Design	2007	Special	2008-F	60
COMM	4323	Public Relations Campaigns	2021	Special	2020-F	65
COMM	4346	2D Animation	2014	Special	2014-F	65
COMM	4350	3D Computer Modeling	2014	Special	2014-F	65
COMM	4351	3D Animation	2014	Special	2014-F	65
COMM	4352	Photo Journalism	2008	Special	2008-F	60
COMM	4354	Video Production and Editing	2014	Special	2014-F	65
COMM	4355	Advanced Video Production & Editing	2011	Special	2011-F	65
COMM	4356	Magazine Publication	2010	Special	2010-F	65
COMM	4357	Documentary Video Production	2019	Special	2018-F	65
COMM	4358	Publication Design	2014	Special	2014-F	65
COMM	4359	Studio-Based Video Production Lab	2019	Special	2018-F	65
COMM	4391	Selected Topics - Communication	2007	Special	2007-F	60
COMM	5931	Research Topics in Communications	2001	Special	2002-F	60
CRCL	6739	Graduate Internship	1999	Practicum	2011-F	50
CRIM	4384	Statistics	2014	Special	2014-F	30
CRIM	5036	Criminological Res. & Stats I	2004	Special	2013-F	30
CRIM	5037	Criminological Res. & Stat II	2004	Special	2013-F	30
CRIM	6739	Graduate Internship	2006	Practicum	2011-F	50
DMST	5031	Graphic Design	2014	Special	2014-F	65
DMST	5033	Advertising Design	2014	Special	2014-F	65
DMST	5036	Digital Video	2008	Special	2008-F	60
DMST	5038	Advanced Digital Photography	2014	Special	2014-F	65
DMST	5131	Game Design and Theory	2019	Special	2018-F	65
DMST	5039	Web Design	2014	Special	2014-F	65
DMST	5132	3-D Modeling	2014	Special	2014-F	65
DMST	5139	Advanced Web Design	2014	Special	2014-F	65

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
DMST	5230	Critical Approaches to DM	2008	Special	2008-F	5
DMST	5231	Advanced Digital Media Design	2014	Special	2014-F	65
DMST	5232	Technical Foundations of DM	2014	Special	2014-F	65
DMST	5235	Animation	2014	Special	2014-F	65
DMST	5236	Video Digital Storytelling	2014	Special	2014-F	65
DMST	5332	Motion Graphics	2014	Special	2014-F	65
DMST	5436	Interactive Animation	2014	Special	2014-F	65
DMST	5534	Single Camera Video Production	2014	Special	2014-F	65
DMST	5535	Broadcast Video Production	2014	Special	2014-F	65
DMST	5536	Studio-Based Video Production Lec.	2019	Special	2018-F	65
DMST	5537	Documentary Video Production	2019	Special	2018-F	65
DMST	5538	Electronic Publication	2014	Special	2014-F	65
DMST	5931	Research Topics in DMST	2008	Special	2008-F	60
EXHS	5130	Epidemiology	2016	Special	2016-F	10
EXHS	5131	Applied Exercise Physiology	2016	Special	2016-F	10
EXHS	5132	Applied Exercise Physiology Cardio	2016	Special	2016-F	10
EXHS	5133	Sports Nutrition	2016	Special	2016-F	10
EXHS	5230	Biostatistics in Public Health	2016	Special	2016-F	10
EXHS	5231	Techniques in Human Perf	2016	Special	2016-F	10
EXHS	5333	Organizational Wellness	2016	Special	2016-F	10
EXHS	5334	Women's Health Issues	2019	Special	2018-F	10
EXHS	5335	Exercise Principles for Spec Populations	2016	Special	2016-F	10
EXHS	5931	Research Topics in Health	2016	Special	2016-F	10

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
EXHS	6032	Advance Seminar in Sports Medicine	2016	Special	2016-F	10
EXHS	6033	Lab Techniques and Res. Design	2016	Special	2016-F	20
EXHS	6035	Statistics in Exercise Science	2016	Special	2016-F	20
EXHS	6036	Biomechanics of Sports and Exercise	2016	Special	2016-F	10
EXHS	6037	Advanced Seminar in Peak Performance	2016	Special	2016-F	10
EXHS	6039	Research in Human Performance	2016	Special	2016-F	10
EXHS	6330	Advance Seminar in Public Health	2016	Special	2016-F	10
EXHS	6739	Graduate Internship	2019	Special	2018-F	30
GEOG	4304	Princ. of Map Reading and Interpr.	2003	Special	2003-F	30
GEOG	4312	Human Geography	1998	Special	2015-SP	30
GEOG	4314	Geographic Concepts and Skills	2003	Special	2003-F	30
GEOG	4322	Problems in Geographic Info Sys	2003	Special	2003-F	30
GEOG	4321	Fundamentals of Geog Info Sys	2005	Special	2005-F	30
GEOG	4323	Advanced Geographic Info Sys	2003	Special	2003-F	30
GEOG	5134	Geographic Information Systems	2018	Special	2018-F	30
GEOG	5231	Approaches to Geographic Edu	1999	Special	2002-F	30
GEOG	5931	Research Topics in Geog	1998	Special	2002-F	30
HIST	3319	Colonial Latin America	2007	Special	2007-F	5
HIST	3321	Modern Latin America	2007	Special	2007-F	5
HIST	3323	History of Mexico	2007	Special	2007-F	5
HIST	3325	Colonial America	2013	Special	2013-F	15
HIST	3327	The New American Nation	2004	Special	2004-F	5
HIST	3329	Antebellum America	2004	Special	2004-F	5

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
HIST	3333	Growth of Industrial America	2004	Special	2004-F	5
HIST	3345	Reel America I	2000	Special	2003-F	20
HIST	3347	Reel America II	2000	Special	2003-F	20
HIST	3341	Women in American History	2004	Special	2004-F	5
HIST	4303	Reel Europe	2011	Special	2011-F	25
HIST	4307	Holocaust: History, Lit & Film	2007	Special	2007-F	25
HIST	4305	Nazi Cinema & Third Reich	2012	Special	2012-F	25
HIST	4309	Studies in Latin-American History	2007	Special	2007-F	5
HIST	4311	Studies in Native Amer. History	2007	Special	2007-F	5
HIST	4315	Stu in African-American History	2007	Special	2007-F	5
HIST	4323	The Vietnam War in Film	2011	Special	2011-F	25
HIST	4329	History of Feminism	2004	Special	2013-F	15
HIST	4391	Selected Topics in History	1998	Special	2005-F	25
HIST	5031	Research and Methods Seminar	2004	Special	2004-F	5
HIST	5131	Stu in Early Am Hist 1607-1815	2004	Special	2004-F	5
HIST	5133	Antebellum America 1815-1865	2004	Special	2004-F	5
HIST	5230	Reel Europe	2018	Special	2018-F	25
HIST	5236	Studies in History and Film	1991	Special	2005-F	25
HIST	5237	Nazi Cinema & 3rd Reich	2011	Special	2011-F	25
HIST	5238	Weimer Cinema & Great War	2011	Special	2011-F	25
HIST	5239	The Vietnam War in Film	2011	Special	2011-F	25
HIST	5330	Memory and Representation in Holocaust Cinema	2012	Special	2012-F	25
HIST	5430	Studies in Women's History	2004	Special	2004-F	5

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
HIST	5434	Studies in Latin-American History	2007	Special	2007-F	5
HLTH	2110	Team Games & Sports	2019	Special	2018-F	30
HLTH	2113	Individual Games & Sports	2019	Special	2018-F	10
HLTH	2115	Innovative Games & Sports	2019	Special	2018-F	10
HLTH	3301	Health, Emerg Care & First Aid	1999	Special	2012-F	50
HLTH	3302	Hlth & Phys Education	2019	Special	2018-F	10
HLTH	3303	Nutrition and Weight Management	2018	Special	2018-F	10
HLTH	3304	Principles of physical fitness	2018	Special	2018-F	10
HLTH	3315	Health Promotion Programs	1999	Special	1999-F	10
HLTH	3316	Applied Kinesiology	1999	Special	1999-F	10
HLTH	3317	Motor Development & Learning	2019	Special	2018-F	10
HLTH	4301	Physiology of Exercise	1999	Special	1999-F	10
HLTH	4302	Biomechanics	1995	Special	1995-F	10
HLTH	4305	Sem in Sports Medicine	1999	Special	1999-F	10
HLTH	4307	Peak Performance	2019	Special	2018-F	10
HLTH	4308	Restive Exercise:Theory & Practice	2011	Special	2011-F	20
HLTH	4309	Research Practicum	2019	Special	2018-F	20
HLTH	4370	Undergraduate Practicum	1989	Practicum	2018-F	30
HLTH	4379	Internship	1991	Practicum		30
HLTH	4391	Selected Topics in Health	1993	Special	1993-F	10
HUMN	1301	Humanities	2019	Special	2018-F	15
HUMN	3375	Ideas in Transition	2019	Special	2018-F	25
HUMN	4195	Cooperative Education	1990	Co-op		75
HUMN	4308	Introduction to Women's Studies	2006	Special	2006-F	15
HUMN	4326	Studies in Film	2010	Special	2010-F	25

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
HUMN	4375	Senior Seminar	2011	Special	2011-F	20
HUMN	4391	Selected Topics in Humanities	2001	Special	2018-F	65
HUMN	5030	History of Ideas I	2019	Special	2018-F	25
HUMN	5031	Texts and Images I	1998	Special	2010-F	25
HUMN	5032	History of Ideas II	2019	Special	2018-F	25
HUMN	5033	Text and Images II	1998	Special	2010-F	25
HUMN	5034	Global Humanities I	2019	Special	2018-F	25
HUMN	5035	Texts and Images III	1998	Special	2010-F	25
HUMN	5036	Global Humanities II	2019	Special	2018-F	25
HUMN	5236	Studies in Film	2010	Special	2010-F	25
HUMN	5237	Studies in Art History	2011	Special	2011-F	60
HUMN	5430	Issues in Art History I	2019	Special	2018-F	25
HUMN	5431	Issues in Art History II	2019	Special	2018-F	25
NURS	3323	Community Health Nursing Project	2019	Malpractice	2018-F	16
PHIL	3331	Ethics	2019	Special	2018-F	25
PSYC	3315	Psychological Thinking	2008	Special	2008-F	20
PSYC	4308	Introduction to Women's Studies	2006	Special	2006-F	15
PSYC	4314	Child Psychology	2011	Special	2011-F	10
PSYC	4327	Practicum in App Beh Analysis	2012	Practicum	2012-F	25
PSYC	4332	Introduction to Industrial/Org. Psyc	2004	Special	2008-F	15
PSYC	4334	Psychology of Women	2014	Special	2016-F	15
PSYC	4370	Behavioral Statistics	2014	Special	2014-F	30
PSYC	4371	Social Sciences Research Techn	2008	Special	2008-F	20
PSYC	5134	Interviewing & Assessment	1999	Special	1999-SP	15
PSYC	5233	Intro to Family Therapy	2012	Special	2012-F	30
PSYC	5235	Learning Principles	1998	Special	2011-F	45
PSYC	5236	Family Assessment	1999	Special	2012-F	50

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
PSYC	5332	Organizational Psychology	2001	Special	2012-F	15
PSYC	5333	Leadership in Organizations	2001	Special	2020-F	15
PSYC	5334	Change and Organizational Development	2001	Special	2012-F	15
PSYC	5335	Career Counseling	2011	Special	2011-F	35
PSYC	5433	Substance Abuse: Causes & Treatments	2004	Special	2004-F	30
PSYC	5434	Intro Art Thrpy Theory & Pract	1999	Special	1999-F	25
PSYC	5439	International Training	2018	Special	2018-F	50
PSYC	5535	Cross-Cultural Perspective on Family	2012	Special	2012-F	50
PSYC	5536	Occupational Hlth Psyc	2012	Special	2012-F	15
PSYC	5537	Professional Issues in I/O Psy	2014	Special	2018-F	20
PSYC	5630	Behavioral Parent Training	2019	Special	2018-F	35
PSYC	5731	Basic Psychotherapy Skills	2019	Special	2018-F	40
PSYC	5737	Family Therapy Professional Ethics	2014	Special	2014-F	50
PSYC	5738	Family Therapy Practicum	1998	Practicum	1997-F	80
PSYC	6032	Intellectual Assessment	1998	Practicum	2012-F	140
PSYC	6033	Personality Assessment	2019	Practicum	2018-F	100
PSYC	6036	Res Design and Statistics I	1998	Special	2009-F	25
PSYC	6037	Res Design and Statistics II	1998	Special	2009-F	25
PSYC	6038	Clinical Practicum	2019	Practicum	2020-F	140
PSYC	6039	School Psyc Practicum	2019	Practicum	2018-F	140
PSYC	6133	Personality Assessment Child	1999	Practicum	2012-F	100
PSYC	6137	Family Research	1999	Special	2010-F	50

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
PSYC	6139	Intervention I	2019	Special	2020-F	140
PSYC	6233	Advanced Family Therapy	2004	Special	2004-F	30
PSYC	6234	Systems and Symptoms	2004	Special	2010-F	50
PSYC	6236	Child & Adoles Family Therapy	1999	Special	1999-F	10
PSYC	6333	Research Design and Stats I for I/O Psyc	2018	Special	2018-F	30
PSYC	6334	Research Design and Statistics II for I/O Psyc	2018	Special	2018-F	30
PSYC	6419	Seminar for Applied Cognitive Psychology	2011	Special	2011-F	40
PSYC	6439	Practicum in Applied Cognitive Psychology	2011	Practicum	2011-F	40
PSYC	6534	Couple & Sex Therapy	2011	Special	2011-F	50
PSYC	6636	Clinical Internship	1991	Practicum		30
PSYC	6666	Clinical Internship	1991	Practicum		60
PSYC	6734	Assessment in Industry	2004	Special	2008-F	50
PSYC	6735	Seminar in Industrial/Organizational Psyc	2008	Special	2018-F	20
PSYC	6739	Graduate Internship	1995	Practicum	2011-F	50
PSYC	7032	Intellectual Assessment	2018	Special	2018-F	140
PSYC	7033	Personality Assessment	2018	Special	2018-F	120
PSYC	7034	Neuropsychological Assessment	2018	Special	2018-F	140
PSYC	7038	Practicum I	2018	Special	2018-F	140
PSYC	7039	Practicum II	2018	Special	2018-F	140
PSYC	7039	Practicum II	2018	Malpractice	2018-F	16
PSYC	7130	Experimental Methodology	2018	Special	2018-F	50
PSYC	7131	Quantitative Analysis I	2018	Special	2018-F	50
PSYC	7132	Quantitative Analysis II	2018	Special	2018-F	50
PSYC	7139	Intervention I	2021	Special	2020-F	140

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
PSYC	7439	Behavioral Parent Training	2018	Special	2018-F	50
PSYC	7936	Clinical Pract, Consultation, and Supervisor	2018	Special	2018-F	140
SOCI	1301	Introduction to Sociology	2021	Special	2020-F	30
SOCI	1306	Social Problems	2013	Special	2013-F	15
SOCI	3351	Political Sociology	2013	Special	2013-F	15
SOCI	4308	Introduction to Women's Studies	2006	Special	2006-F	15
SOCI	4312	Social Structure, Class, Power & Status	2021	Special	2020-F	30
SOCI	4322	Theories of Society	2021	Special	2020-F	30
SOCI	4363	American Immigration & Immigrant Exp	2013	Special	2013-F	15
SOCI	4379	Internship in Human Services	1998	Practicum	1997-F	30
SOCI	4384	Statistics	2014	Special	2014-F	30
SOCI	4385	Research Methods	2021	Special	2020-F	30
SOCI	5333	Minorities and Majorities	2013	Special	2013-F	15
SOCI	5334	Social Stratification	2013	Special	2013-F	15
SOCI	5537	Urban Problems	2013	Special	2013-F	15
SOCI	5633	American Immigration Studies	2013	Special	2013-F	15
SOCI	5731	Politics and Protest	2013	Special	2013-F	15
SOCI	5732	Social Problems and Dystopian Film	2013	Special	2013-F	15
SOCI	6730	Graduate Statistics	2021	Special	2020-F	30
SOCI	6731	Graduate Research Methods	2014	Special	2014-F	30
SOCI	6739	Graduate Internship	1995	Practicum	2011-F	50
SWRK	4301	Introduction to Social Work	2016	Special	2016-F	15
SWRK	4363	Research Methods	2016	Special	2016-F	20
SWRK	4370	Behavioral Statistics	2007	Special	2014-F	30
SWRK	4619	Social Work Internship I	2000	Practicum	2003-F	50

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
SWRK	4629	Social Work Internship II	2000	Practicum	2003-F	50
WMST	3341	Women in American History	2018	Special	2018-F	5
WMST	4308	Introduction to Women's Studies	2006	Special	2006-F	15
WMST	4329	History of Feminism	2013	Special	2013-F	15
WMST	4334	Psychology of Women	2006	Special	2006-F	15
WMST	4370	Gender and Identity in the Visual Arts	2011	Special	2011-F	60
WMST	5931	Research Topics in Women Studies	2018	Special	2018-F	5

Science and Engineering

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ASTR	1103	Lab for Stars and Galaxies	2014	Special	2014-F	45
ASTR	1104	Lab for Solar System	2014	Special	2014-F	45
ASTR	3111	Lab for Modern Astronomy	2008	Special	2008-F	45
ASTR	3311	Modern Astronomy	1997	Special	2009-F	30
ASTR	5131	Graduate Astronomy	2004	Special	2004-F	45
BIOL	1106	Lab for Biology for Sci Majors I	2014	Special	2014-F	60
BIOL	1107	Lab for Biology for Science Majors II	2014	Special	2014-F	60
BIOL	1108	Lab for Biology for Non-Science Majors	2016	Special	2016-F	60
BIOL	2101	Lab for Anatomy & Physiology I	2016	Special	2016-F	60
BIOL	2102	Lab for Anatomy & Physiology II	2016	Special	2016-F	60
BIOL	2121	Lab for Microbiology for Science Majors	2014	Special	2014-F	80
BIOL	2428	Vertebrate Zoology	2014	Special	2014-F	60
BIOL	3113	Lab Plant Anatomy	1998	Special	2016-F	60
BIOL	3141	Molecular Genetics Laboratory	2004	Special	2016-F	100
BIOL	3173	Human Anatomy Laboratory	2001	Special	2020-F	60

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
BIOL	3311	Marine Biology	2014	Special	2014-F	80
BIOL	3333	Environmental Biology	2021	Special	2020-F	10
BIOL	4101	Lab Methods in Life Sciences	1997	Special	1996-F	45
BIOL	4113	Lab for Biology of Fishes	2014	Special	2014-F	80
BIOL	4114	Lab for Freshwater Biology	2015	Special	2015-F	80
BIOL	4189	Independent Study in Biology	2007	Special	2015-F	60
BIOL	4211	Laboratory for Ecology	1998	Special	1997-F	45
BIOL	4214	Freshwater Biology	2021	Special	2020-F	80
BIOL	4225	Environmental Toxicology Lab	2004	Special	2004-F	45
BIOL	4241	Laboratory for Physiology	1997	Special	2020-F	60
BIOL	4242	Laboratory for Biochemistry	2014	Special	2014-F	70
BIOL	4252	Molecular Biology Laboratory	2014	Special	2014-F	120
BIOL	4253	Lab for Biotechnology	2014	Special	2020-F	130
BIOL	4254	Lab for Eukaryotic Gene Expression	2011	Special	2020-F	130
BIOL	4289	Independent Study in Biology	2007	Special	2015-F	90
BIOL	4291	Lab Topics in Bio	2012	Special	2012-F	75
BIOL	4305	Ecology of the Amazon	2011	Special	2011-F	10
BIOL	4323	Field Biology	1997	Special	1996-F	45
BIOL	4327	Plant Identification	2001	Special	2001-F	30
BIOL	4334	Environmental Microbiology	2021	Special	2020-F	100
BIOL	4355	Tissue Culture	2014	Special	2020-F	130
BIOL	4389	Indt Study in Biology	2001	Special	2015-F	120
BIOL	5215	Laboratory For Ichthyology	2014	Special	2014-F	80
BIOL	5234	Population and Community Dynamics	2014	Special	2016-F	120
BIOL	5233	Ecotoxicology	2012	Special	2012-F	45

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
BIOL	5512	Lab for Coastal and Estuarine Ecology	2015	Special	2015-F	80
BIOL	5517	Lab for Limnology and Aquatic Design	2015	Special	2015-F	80
BIOL	5530	Research Methods in Biology	2008	Special	2008-F	60
BIOL	5531	Aquatic Toxicity Testing	1998	Special	2016-F	80
BIOL	5535	Tropical Rainforest Ecology	2008	Special	2009-F	10
BIOL	5537	Limnology and Aquatic Biology	2021	Special	2020-F	80
BIOL	5533	Ecological Methods	1998	Special	1998-SP	45
BIOL	5915	Cooperative Edu Work Term	2011	Co-op	2011-F	100
BIOL	5919	Independent Study in Biolog. Science	2008	Special	2015-F	60
BIOL	5929	Ind Study in Biol Sciences	2011	Special	2015-F	90
BIOL	5939	Independent Study in Biolog. Science	2008	Special	2015-F	120
BIOL	6939	Master's Thesis Research	1997	Special	2020-F	130
BIOT	5021	Methods of Biotechn	2011	Special	2020-F	130
BIOT	5121	Adv Methods of Biotech I	2011	Special	2020-F	130
BIOT	5122	Adv Methods of Biotech II	2011	Special	2020-F	130
BIOT	5235	Bacterial Taxonomy and Biot Lab	2019	Special	2018-F	130
BIOT	5331	Stem Cell Biot	2011	Special	2012-F	45
BIOT	5431	Plant Genomic Analysis	2011	Special	2011-F	75
BIOT	5530	Research Methods in Biotechnology	2013	Special	2013-F	60
BIOT	5535	Environmental Biotech	2011	Special	2013-F	90
BIOT	5833	Proteomics	2014	Special	2015-S	45
BIOT	5915	Coop Ed Work Term	2008	Co-op	2011-F	100
BIOT	5919	Ind. Study in BIOT	2011	Special	2016-F	60

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
BIOT	5921	Lab Topics in Biotechnology	2013	Special	2013-F	80
BIOT	5929	Ind. Study in BIOT	2011	Special	2016-F	90
BIOT	5931	Research Topics in Biotechnology	2008	Special	2008-F	45
BIOT	5933	Lap topic: Biotechnology	2021	Special	2020-F	130
BIOT	5939	Ind Study in Biotech	2019	Special	2018-F	130
BIOT	6939	Master's Thesis Research	2019	Special	2018-F	130
BIOT	6969	Master's Thesis Research	2021	Special	2020-F	130
CENG	2112	Lab for Digital Circuits	2021	Special	2020-F	40
CENG	2371	Microcontroller Programming	2021	Special	2020-F	40
CENG	3113	Laboratory for Linear Circuits	1998	Special	1997-F	40
CENG	3114	Lab for Adv Linear Circuits	1998	Special	1997-SP	40
CENG	3116	Lab for Electronics	2019	Special	2018-F	40
CENG	3131	Lab for Telecom and Networks	1998	Special	1997-SP	40
CENG	3151	Lab for Computer Architecture	1998	Special	1997-SP	40
CENG	3264	Eng Design & Project Management	2010	Special	2010-F	40
CENG	3315	Intro to Digital Signal Processing	2019	Special	2018-F	40
CENG	4113	Lab for Miroprocsr Interfacing	2001	Special	2002-F	40
CENG	4179	Intern in Comp Engineering	2019	Special	2018-F	20
CENG	4189	Ind Study in Comp Sys Eng	1998	Special	2010-F	20
CENG	4195	Cooperative Education Work Term	2001	Co-op	2011-F	100
CENG	4265	Senior Project	2007	Special	2007-F	40
CENG	4266	Senior Project	2010	Special	2010-F	40
CENG	4279	Intern in Comp Engineering	2019	Special	2018-F	30

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
CENG	4289	Ind Study in Comp Engineering	2019	Special	2018-F	30
CENG	4331	Analysis and Design of Linear Sys	1998	Special	1998-SP	40
CENG	4351	Intro to Robotics	2019	Special	2018-F	40
CENG	4354	Digital System Design	1998	Special	1997-SP	40
CENG	4362	Realtime Digital Control	1998	Special	1997-SP	40
CENG	4370	Intern in Comp Engineering	2019	Special	2018-F	40
CENG	4389	Ind Study in Comp Sys Eng	1998	Special	1997-SP	40
CENG	4391	Selected Topics in Comp. Eng.	1999	Special	1999-F	40
CENG	5131	Engineering Applications	1997	Special	1996-F	40
CENG	5133	Computer Architecture Design	2015	Special	2015-F	40
CENG	5331	Theory of Information and Coding	1997	Special	1996-F	40
CENG	5332	Wireless Communications and Networks	2019	Special	2018-F	40
CENG	5333	Network Performance Analysis	1997	Special	1996-F	40
CENG	5334	Fault Tolerant Computing	1997	Special	1996-F	40
CENG	5335	Digital Systems Testing	2019	Special	2018-F	40
CENG	5336	Functional Verification of Digital Systems	2019	Special	2018-F	40
CENG	5337	Low Power System Design	2019	Special	2018-F	40
CENG	5338	VLSI Design	2019	Special	2018-F	40
CENG	5431	Digital Signal Processing	1997	Special	1996-F	40
CENG	5432	Digital Control Systems	1999	Special	1999-F	40
CENG	5433	Prin of Digital Communications Systems	1997	Special	1996-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
CENG	5434	Microcomputer Systems Design	1998	Special	1997-F	40
CENG	5435	Robotics and ROS	2019	Special	2018-F	40
CENG	5436	Computer Vision and Applications	2019	Special	2018-F	40
CENG	5437	Mobile Robots	2021	Special	2020-F	40
CENG	5531	Machine Learning & Applications	2010	Special	2010-F	40
CENG	5532	Tele-Medicine	2019	Special	2018-F	40
CENG	5533	Quantum Computing	2021	Special	2020-F	40
CENG	5534	Advanced Digital System Design	2010	Special	2010-F	40
CENG	5535	Wireless Sensor Networks	2019	Special	2018-F	40
CENG	5536	Applications for Parallel Computing	2021	Special	2020-F	40
CENG	5537	Scalable Many Core Computing	2021	Special	2020-F	40
CENG	5631	Digital Image Processing	2019	Special	2018-F	40
CENG	5634	Artificial Neural Networks	2010	Special	2010-F	40
CENG	5719	Intern in Comp Engineering	2019	Special	2018-F	20
CENG	5729	Intern in Comp Engineering	2019	Special	2018-F	30
CENG	5739	Intern in Comp Engineering	2019	Special	2018-F	40
CENG	5915	Cooperative Education Work Term	2001	Co-op	2011-F	100
CENG	5919	Ind Study in Computer Eng	2019	Special	2018-F	20
CENG	5929	Ind Study in Computer Eng	2019	Special	2018-F	30
CENG	5931	Topics in Comp. Eng	1998	Special	1997-F	40
CENG	5939	Indt Study in Computer Eng.	1997	Special	1996-F	40
CENG	6332	High Perf Computer Architecture	1997	Special	1996-F	40
CENG	6431	DSP Implementations	2002	Special	2002-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
CENG	6432	Bio-Medical Signal Processing	2019	Special	2018-F	40
CENG	6532	Parallel Processing	1997	Special	1996-F	40
CENG	6533	Robotics	1998	Special	1997-F	40
CENG	6534	Digital Systems Synthesis and Optimization	2021	Teaching	2020-F	40
CENG	6535	Bio-Inspired Computing	2015	Special	2015-F	40
CENG	6838	Research Proj and Seminar	1998	Special	1997-F	40
CENG	6939	Master's Thesis Research	1997	Special	1996-F	40
CHEM	1111	Lab for General Chemistry I	2019	Special	2018-F	90
CHEM	1112	Lab for General Chemistry II	2019	Special	2018-F	90
CHEM	2123	Lab for Organic Chemistry I	2014	Special	2014-F	120
CHEM	2125	Lab for Organic Chemistry II	2014	Special	2014-F	120
CHEM	4195	Cooperative Education Work Trm	1992	Co-op	2011-F	100
CHEM	4222	Lab for Physical Chemistry	2019	Special	2018-F	120
CHEM	4235	Adv Lab for Inorganic Chemistry	2019	Special	2018-F	120
CHEM	4242	Lab for Bio-Chem	1997	Special	2013-F	70
CHEM	4268	Lab for Instrumental Analysis	2021	Special	2020-F	130
CHEM	4274	Lab for Quantitative Chemical Analysis	2021	Special	2020-F	120
CHEM	4279	Undergraduate Research	2014	Special	2014-F	100
CHEM	4389	Indt Study in Chemistry	2014	Special	2014-F	120
CHEM	5915	Cooperative Education Work Term	1992	Co-op	2011-F	100
CHEM	5919	Indt Study in Chemistry	2019	Special	2018-F	60
CHEM	5331	Quantitative chemical Analysis	2014	Special	2015-F	120

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
CHEM	5931	Research Topics Chemistry	2019	Special	2018-F	120
CHEM	5939	Indt Study in Chemistry	2019	Special	2018-F	120
CHEM	6839	Research Project and Seminar II	2021	Special	2020-F	100
CINF	1370	Introduction to CIS	2014	Special	2014-F	40
CINF	3311	Programming w/ Visual Basic	2006	Special	2006-F	40
CINF	3321	Info Sys Theory and Practice	2006	Special	2006-F	40
CINF	3331	Business Data Communications	2021	Special	2020-F	40
CINF	3391	Topics in Computer Info Systems	2006	Special	2006-F	40
CINF	4308	Topics-Comp Info Sys-Non-Major	2006	Special	2006-F	40
CINF	4320	Web Application Development	2006	Special	2006-F	40
CINF	4323	Computer Security	2006	Special	2006-F	40
CINF	4324	Modern System Analysis & Design	2006	Special	2006-F	40
CINF	4364	Computer Systems Admin.	2006	Special	2006-F	40
CINF	4381	Computer Forensics	2013	Special	2013-F	50
CINF	4388	Sr. Proj. in Comp Info Systems	2006	Special	2016-F	50
CINF	4389	Ind Study in Computer Info Systems	2013	Special	2013-F	50
CINF	4495	Coop Ed Work Term	2011	Co-op	2011-F	100
CINF	4391	Advanced Topics in Comp Info System	2006	Special	2013-F	50
CINF	5231	Strategic Info Systems	2011	Special	2011-F	45
CINF	5234	Adv. Systems Analysis Design	2011	Special	2011-F	45
CINF	5432	Data Warehousing and Business Intelligence	2021	Special	2020-F	40
CINF	5915	Coop Ed Work Term	2011	Co-op	2011-F	100

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
CINF	5931	Selected Topics in CINF	2016	Special	2016-F	40
CSCI	1320	C Programming	2014	Special	2014-F	40
CSCI	1370	Programming with Java	1998	Special	1998-SP	40
CSCI	1470	Computer Science I	2014	Special	2014-F	50
CSCI	1471	Computer Science II	2014	Special	2014-F	50
CSCI	2315	Data Structures	2014	Special	2014-F	40
CSCI	2331	Comp Org and Assembly Lang.	2021	Special	2020-F	40
CSCI	3303	Fundamentals of Programming	2021	Special	2020-F	40
CSCI	3311	Programming with Visual Basic	2001	Special	2001-F	40
CSCI	3321	Numerical Methods	1997	Special	1996-F	40
CSCI	3323	Objct Oriented Design and Progm	1997	Special	1996-F	40
CSCI	3352	ADV Data Structure and Algorithms	1997	Special	1996-F	40
CSCI	3362	Artificial Intel. Programming Languages	1998	Special	1998-SP	40
CSCI	3391	Selected Topics in Computing	2000	Special	2000-F	40
CSCI	4189	Indt Study in Computer Science	1998	Special	1997-F	15
CSCI	4195	Co-op Ed Work Term	1989	Co-op		100
CSCI	4289	Independent Study in Computer Science	2021	Special	2020-F	40
CSCI	4303	Concepts in Database Systems	2021	Special	2020-F	40
CSCI	4307	Computing Essentials	1998	Special	1998-SP	40
CSCI	4308	Topic in Comp Sci for Non-Majors	2000	Special	2000-F	40
CSCI	4312	Network Protocols	1997	Special	1996-F	40
CSCI	4320	Internet Application Development	1998	Special	1998-SP	40
CSCI	4323	Computer Security	2006	Special	2006-F	40
CSCI	4333	Design of Database Systems	1997	Special	1996-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
CSCI	4335	Introduction to Artificial Intelligence	2021	Special	2020-F	40
CSCI	4336	Introduction to Machine Learning	2021	Special	2020-F	40
CSCI	4350	Comptr Grphics & Infrfce Desgn	1997	Special	1996-F	40
CSCI	4351	Concurrent Programming in Unix	1998	Special	1997-F	40
CSCI	4354	Operating Systems	1997	Special	1996-F	40
CSCI	4362	Computer Game Programming	2021	Special	2020-F	40
CSCI	4364	Computer Sys Administration	1998	Special	1998-SP	40
CSCI	4377	Introduction to Mobile App Development	2021	Special	2020-F	40
CSCI	4379	Internship in Computer Science	2021	Co-Op	2020-F	50
CSCI	4381	Computer Forensics	2011	Special	2015-F	50
CSCI	4388	Senior Project in Computer Sci	1998	Special	2016-F	50
CSCI	4389	Indt Study in Computer Science	1998	Special	2013-F	50
CSCI	4391	Select Topics Computer Science	1997	Special	2016-F	50
CSCI	5037	Adv Top in Com Sci, Non-Majors	2000	Special	2000-F	40
CSCI	5130	Human Computer Interface	2021	Special	2020-F	40
CSCI	5131	Simulation Techniques	1997	Special	1996-F	40
CSCI	5132	Internet Protocols	1997	Special	1996-F	40
CSCI	5134	Concurrent Programming and SW Modeling	2021	Special	2020-F	40
CSCI	5232	Concept of Prog Languages	2002	Special	2002-F	40
CSCI	5233	Computer Security & Integrity	1997	Special	1996-F	40
CSCI	5235	Network Security	2021	Special	2020-F	40
CSCI	5331	Computer Graphics	1997	Special	1996-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
CSCI	5333	Data Base Management System	1997	Special	1996-F	40
CSCI	5335	Internet of Things (IoT)	2021	Special	2020-F	40
CSCI	5388	Big Data Analytics	2021	Special	2020-F	40
CSCI	5431	Client-Server Based Ntwk Prog	1999	Special	1999-F	40
CSCI	5432	Design & Analysis of Algorith	2002	Special	2002-F	40
CSCI	5433	Object-Oriented Database Sys	1998	Special	1997-F	40
CSCI	5530	Pattern Classification	1997	Special	1996-F	40
CSCI	5531	Advanced Operating Systems	1997	Special	1996-F	40
CSCI	5532	Pattern Recogn Image Proces.	1997	Special	1996-F	40
CSCI	5533	Distributed Information Systems	1997	Special	1996-F	40
CSCI	5631	Found. for Service Oriented Architectures	2001	Special	2001-F	40
CSCI	5633	Web Database Development	2021	Special	2020-F	40
CSCI	5635	Parallel Processing	2002	Special	2002-F	40
CSCI	5733	XML Application Development	2021	Special	2020-F	40
CSCI	5737	Mobile Application Development	2021	Special	2020-F	40
CSCI	5739	Internship in Computer Science	2021	Co-Op	2020-F	40
CSCI	5832	Financial Data Mining	2021	Special	2020-F	40
CSCI	5833	Data Mining Tools and Techniques	2004	Special	2004-F	40
CSCI	5838	Mobile Game Programming	2015	Special	2015-F	40
CSCI	5915	Co-op Ed Work Term	1989	Cp-op	2011-F	100
CSCI	5919	Indt Study in Computer Science	1998	Special	1997-F	15
CSCI	5931	Research Topics Computer SCI	1997	Special	1996-F	40
CSCI	5933	Computational Bioinformatics	2021	Special	2020-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
CSCI	5939	Indt Study in Computer Science	1997	Special	1996-F	40
CSCI	6530	Research Methods in Computer Science	2021	Special	2020-F	40
CSCI	6532	Real-Time Systems	1998	Special	1997-F	40
CSCI	6838	Research Project and Seminar	1997	Special	1996-F	40
CSCI	6939	Master's Thesis Research	1997	Special	1996-F	40
CSCI	6969	Master's Thesis Research	1998	Special	1997-F	80
EMGT	5130	New Business Development	2008	Special	2008-F	40
EMGT	5131	Legal Issues in EMGT	2008	Special	2008-F	40
EMGT	5230	Negotiation Strategies	2008	Special	2008-F	40
EMGT	5231	Eng. Mgt Planning	2008	Special	2008-F	40
EMGT	5330	Service and Operations Management	2010	Special	2010-F	40
EMGT	5331	Six Sigma Quality	2010	Special	2010-F	40
EMGT	5430	Professional Project Management	2021	Teaching	2020-F	40
EMGT	5531	Technology Planning and Management	2021	Teaching	2020-F	40
EMGT	5630	Quantative Decision Making in EMGT	2021	Teaching	2020-F	40
EMGT	5631	Supply Chain Management	2021	Teaching	2020-F	40
EMGT	5632	Logistics Management	2021	Teaching	2020-F	40
EMGT	5730	Fundamental of Enterprise Resource Planning	2021	Teaching	2020-F	40
EMGT	5731	Business Analytics	2021	Teaching	2020-F	40
EMGT	5830	Modeling and Simulation	2021	Teaching	2020-F	40
EMGT	5931	Research Topics in Eng Mgt	2010	Special	2010-F	40
EMGT	5939	Independent Study in Eng. MGT	2011	Special	2011-F	45
EMGT	6837	Eng. Mgmt Capstone Project	2008	Special	2008-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
EMGT	6939	Master's Thesis Research	2008	Special	2008-F	40
ENGR	1201	Introduction to Engineering	2016	Special	2016-F	40
ENGR	1304	Engineering Graphics	2016	Special	2016-F	40
ENGR	2301	Statics	2021	Special	2020-F	40
ENGR	2302	Dynamics	2021	Special	2020-F	40
ENGR	2304	Computing for Engineers	2021	Special	2020-F	40
ENGR	2305	Electrical Circuits I	2021	Special	2020-F	40
ENSC	1101	Lab for Environmental Science I	2014	Special	2014-F	70
ENSC	1102	Lab for Environment Science II	2014	Special	2014-F	70
ENSC	3307	Fundamentals of GIS	2021	Special	2020-F	75
ENSC	3331	Environmental Biology	2021	Special	2020-F	10
ENSC	4379	Internship in Env. Science	2000	Special	2008-F	45
ENSC	4189	Independent Study in Env Science	2019	Special	2018-F	60
ENSC	4289	Independent Study in Env Science	2019	Special	2018-F	90
ENSC	4195	Coop Ed Work Term	1995	Co-op	2012-F	100
ENSC	4251	Lab for Environmental Analysis	2021	Special	2020-F	120
ENSC	4323	Soils in the Environment	2021	Special	2020-F	70
ENSC	4335	Applied GIS	2021	Special	2020-F	75
ENSC	4336	Web GIS	2021	Special	2020-F	75
ENSC	4337	Geospatial Technologies	2021	Special	2020-F	75
ENSC	4351	Hydrogeology	2021	Special	2020-F	75
ENSC	4355	Environmental Sampling and Monitoring	2021	Special	2020-F	70
ENSC	4391	Topics in Environmental Science	2010	Special	2010-F	45

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ENSC	4389	Independent Study in Env Science	2019	Special	2018-F	120
ENSC	5031	Teaching Environmental Science	2010	Special	2010-F	45
ENSC	5333	Wetlands	2021	Special	2020-F	80
ENSC	5530	Research Methods in Env Science	2019	Special	2018-F	45
ENSC	5535	Sampling & Analysis of Env Contaminants	2021	Special	2020-F	70
ENSC	5915	Co-op Ed Work Term	1998	Co-op	2011-F	100
ENSC	5931	Research Topics in Env. Science	2019	Special	2018-F	65
ENSC	5939	Indt Study in Environ Science	2019	Special	2018-F	100
ENSC	6731	Graduate Seminar	2019	Special	2018-F	65
ENSC	6838	Research Project	2019	Special	2018-F	125
ENSC	6939	Master's Thesis Research	2019	Special	2018-F	125
GEOL	1103	Lab for Physical Geology	2019	Special	2018-F	75
GEOL	1104	Lab for Historical Geology	2019	Special	2018-F	75
GEOL	1303	Physical Geology	2019	Special	2018-F	50
GEOL	1304	Physical Geology	2019	Special	2018-F	50
GEOL	2107	Lab for Geological Field Methods	2019	Special	2018-F	100
GEOL	3117	Lab for Mineralogy and Petrology I	2019	Special	2018-F	80
GEOL	3240	Geological Field Methods	2019	Special	2018-F	70
GEOL	3304	Fundamentals of Planetary Geog	1997	Special	1996-F	45
GEOL	3307	Intro to Geographical Info Syst	2019	Special	2020-F	0
GEOL	3317	Mineralogy and Petrology	1997	Special	1996-F	45
GEOL	3361	Photogeology	1991	Special		30
GEOL	4101	Laboratory for Earth Science	1997	Special	1996-F	45

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
GEOL	4145	Lab for Structural Geology	2019	Special	2018-F	70
GEOL	4189	Ind Study in Geology	2019	Special	2018-F	15
GEOL	4222	Laboratory for Geomorphology	1997	Special	1996-F	45
GEOL	4317	Adv Mineralogy and Petrology	2019	Special	2018-F	40
GEOL	4323	Soils in the Environment	2019	Special	2018-F	0
GEOL	4324	Geomorphology	2019	Special	2018-F	70
GEOL	4325	Sedimentation and Stratigraphy	2019	Special	2018-F	30
GEOL	4327	Natural Disasters	2019	Special	2018-F	35
GEOL	4335	Applied GIS	2019	Special	2020-F	0
GEOL	4351	Hydrogeology	2019	Special	2020-F	0
GEOL	4389	Ind Study in Geology	2019	Special	2018-F	45
GEOL	4391	Selected Topics in Geology	2019	Special	2018-F	50
GEOL	5333	Wetlands	2014	Special	2020-F	0
GEOL	5631	Remote Sensing: Apps in Geog	1997	Special	1996-F	45
INDH	3333	Environmental Safety and Health	2019	Special	2018-F	75
INDH	4341	Adv. Studies in Occupational Safety and Health	2006	Special	2008-F	60
INDH	4379	Intern in Indust Hygiene/Safety	2000	Special	2008-F	45
INDH	4389	Ind Study in Industrial Hygiene	2000	Special	2008-F	45
INDH	4195	Cooperative Edu Work Team	1990	Co-op	2011-F	100
INDH	5334	Human Factors Engineering	2013	Special	2013-F	40
INDH	5739	Intern in Industrial Hygiene and Safety	2000	Special	2000-F	45
INDH	5915	Cooperative Ed Work Term	1992	Co-op	2011-F	100
INDH	5939	Indt Study in Industrl Hygiene	2000	Special	2008-F	45

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
ITEC	1310	Introduction to Information Technology	2021	Special	2020-F	80
ITEC	2313	Scripting I	2021	Special	2020-F	40
ITEC	2351	Web Fundamentals	2021	Special	2020-F	40
ITEC	2381	Forensics Fundamentals	2021	Special	2020-F	50
ITEC	3312	Scripting II	2021	Special	2020-F	40
ITEC	3335	Database Development	2014	Special	2014-F	40
ITEC	3365	Network Fundamentals	2014	Special	2014-F	40
ITEC	3388	Cyber Security	2021	Special	2020-F	40
ITEC	4382	Registry and Internet Forensics	2014	Special	2015-F	50
ITEC	4313	Emerging Information Technology	2011	Special	2011-F	40
ITEC	4335	Database Admin	2011	Special	2011-F	45
ITEC	4342	Information Technology Project Management	2021	Special	2020-F	40
ITEC	4351	Web Design	2021	Special	2020-F	40
ITEC	4365	Network Admin	2011	Special	2013-F	50
ITEC	4189	Ind Study in Info Technology	2011	Special	2011-F	45
ITEC	4381	Computer Forensics	2011	Special	2013-F	50
ITEC	4383	Cyber Security II	2021	Special	2020-F	40
ITEC	4388	Senior Project in Information Technology	2011	Special	2013-F	50
ITEC	4389	Ind Study in Info Technology	2019	Special	2018-F	50
ITEC	4195	Coop Ed Work Term	2011	Special	2011-F	100
ITEC	4391	Selected Topics in ITEC	2019	Special	2018-F	50
MATH	1314	College Algebra	2014	Special	2014-F	40
MATH	1324	Finite Math	2014	Special	2014-F	40
MATH	1325	Business Calculus	2014	Special	2014-F	40
MATH	1332	Mathematics for Liberal Arts	2014	Special	2014-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
MATH	1342	Elementary Statistical Methods	2014	Special	2014-F	40
MATH	1350	Fundamentals of Mathematics I	2014	Special	2014-F	40
MATH	1351	Fundamentals of Mathematics II	2014	Special	2014-F	40
MATH	2305	Discrete Mathematics	2014	Special	2014-F	40
MATH	2315	Calculus III (3SCH)	2014	Special	2014-F	40
MATH	2318	Linear Algebra	2014	Special	2014-F	40
MATH	2320	Differential Equations	2014	Special	2014-F	40
MATH	2412	Pre-Calculus Mathematics	2014	Special	2014-F	40
MATH	2413	Calculus I	2014	Special	2014-F	40
MATH	2414	Calculus II	2014	Special	2014-F	40
MATH	2415	Calculus III (4SCH)	2014	Special	2014-F	30
MATH	3304	Algebra Through Technology	1997	Special	2013-F	40
MATH	3305	Euclidian & Non-Euclid. Geom.	1990	Special	2013-F	30
MATH	3306	Problem Solving	1995	Special	1995-F	10
MATH	3307	Functions and Modeling	2021	Special	2020-F	30
MATH	4300	Intro-Mod Algebra and Num Theory	2004	Special	2008-F	30
MATH	4312	Number Theory	1998	Special	1997-F	30
MATH	4315	Num Analysis and Its Application	1999	Special	2013-F	40
MATH	4316	Math Software Applications	1997	Special	2013-F	40
MATH	4322	Abstract Algebra	1998	Special	1997-F	30
MATH	4344	Intro to Probability	1998	Special	2013-F	40
MATH	4345	Introduction to Statistics	1998	Special	2013-F	40
MATH	4346	Probability for Actuarial Exam P1	2013	Special	2013-F	30
MATH	5031	Problem Solving Strategies	1997	Special	1996-F	10
MATH	5033	Instructional App. Of Algebra	1990	Special	1994-F	10
MATH	5034	Geometry Seminar	1990	Special	2013-F	30

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
MATH	5035	Precalculus-Math for Tchrs of Gr 10-14	1990	Special	1994-F	10
MATH	5036	Calculus-Math for Tchrs of Gr 10-14	1990	Special	1994-F	10
MATH	5037	Technology for Mathematics Curriculum	2010	Special	2013-F	40
MATH	5136	Ordin Diff Equa and Dynm. Sys	1998	Special	2013-F	40
MATH	5333	Numerical Analysis	1998	Special	2013-F	40
MATH	5431	Math Modeling in Appl Sciences	1999	Special	2013-F	40
MATH	5931	Research Topics in Math	1994	Special	2008-F	40
MATH	6837	Research Project I	2008	Special	2008-F	40
MENG	1204	Engineering Graphics	2021	Special	2020-F	40
MENG	3210	Mechanical Engineering Lab I	2021	Special	2020-F	40
MENG	3211	Mechanical Engineering Lab II	2021	Special	2020-F	40
MENG	3314	Design Methodology	2021	Special	2020-F	60
MENG	3324	Introduction to Materials Science	2021	Special	2020-F	60
MENG	3334	Thermodynamics	2021	Special	2020-F	40
MENG	3344	Introduction to Manufacturing Processes	2021	Special	2020-F	60
MENG	4143	Thermal/Fluid Laboratory	2021	Special	2020-F	40
MENG	4240	Senior Design Project I	2021	Special	2020-F	60
MENG	4241	Senior Design Project II	2021	Special	2020-F	60
MENG	4302	Introduction to Mechatronics	2021	Special	2020-F	50
MENG	4305	Finite Element Analysis	2021	Special	2020-F	40
MENG	4309	Design for Manufacturing	2021	Special	2020-F	60
MENG	4310	Dynamics and Control of Mechanical Systems	2021	Special	2020-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
MENG	4340	Mechanical Engineering Capstone I	2021	Special	2020-F	60
MENG	4341	Mechanical Engineering Capstone II	2021	Special	2020-F	60
MENG	4391	Selected Topics in Mechanical Engineering	2021	Special	2020-F	40
OSHE	3311	Industrial Health and Hygiene	2021	Special	2020-F	75
OSHE	3340	Techniques of Safety Engineering and Analysis	2021	Special	2020-F	50
OSHE	4315	Industrial Radiological Health	2021	Special	2020-F	100
OSHE	4321	Ergon. Human Factors and Wk Space Design	2021	Special	2020-F	75
OSHE	4333	Construction and General Industry Safety	2021	Special	2020-F	50
OSHE	4411	Noise and Hearing Conservations	2021	Special	2020-F	100
OSHE	4413	Industrial Ventilation	2021	Special	2020-F	100
OSHE	4422	Industrial Hygiene Sampling and Analysis	2021	Special	2020-F	100
OSHE	5234	Hazardous Materials Management	2021	Special	2020-F	75
OSHE	5235	Fire Safety Engineering	2021	Special	2020-F	75
OSHE	5335	Erg Methods and Analysis Techniques	2021	Special	2020-F	75
OSHE	5530	Research Methods in Env Science	2021	Special	2020-F	50
OSHE	6135	Radiation Protection	2021	Special	2020-F	100
OSHE	6242	Analy Method for Eval of Health Hazards	2021	Special	2020-F	100
OSHE	6332	Safety Engineering	2021	Special	2020-F	50
OSHE	6731	Graduate Seminar	2021	Special	2020-F	50
OSHE	6838	Research Project and Seminar	2021	Special	2020-F	125
PHYS	1101	Lab for College Physics I	2014	Special	2014-F	50

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
PHYS	1102	Lab for College Physics II	2014	Special	2014-F	50
PHYS	2125	Lab for University Physics I	2014	Special	2014-F	50
PHYS	2126	Lab for University Physics II	2014	Special	2014-F	50
PHYS	3103	Lab for Modern Physics	2008	Special	2009-F	50
PHYS	4101	Lab Methods in Physical Sci.	2003	Special	2003-F	45
PHYS	4189	Ind Study in Phys	2013	Special	2013-F	45
PHYS	4195	Coop Educ Work Term	2013	Co-op	2013-F	100
PHYS	4201	Advanced Physics Laboratory	2021	Special	2020-F	100
PHYS	4202	Computational Physics	2021	Special	2020-F	50
PHYS	4371	Undergraduate Physics Research	2019	Special	2018-F	45
PHYS	4372	Research Seminar	2013	Special	2013-F	40
PHYS	4389	Ind Study in Phys	2013	Special	2013-F	45
PHYS	5021	Graduate Physics Laboratory	2021	Special	2020-F	100
PHYS	5031	Experiments in Modern Physics	2011	Special	2013-F	75
PHYS	5739	Internship in Physics	2004	Special	2004-F	30
PHYS	5915	Cooperative Education in Physics	2004	Co-op	2011-F	100
PHYS	6837	Advanced Physics Research	2019	Special	2018-F	45
PHYS	6838	Research Project and Seminar	2004	Special	2004-F	40
PHYS	6939	Master's Thesis Research	2016	Special	2016-F	60
SENG	4310	Intro to Systems Engineering	2001	Special	2001-F	40
SENG	5130	Systems Engineering Processes	2002	Special	2002-F	40
SENG	5230	Systems Engineering Economics	2001	Special	2001-F	40
SENG	5231	Concurrent Engineering	2001	Special	2001-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
SENG	5232	Eng Speciality Integration	2001	Special	2001-F	40
SENG	5233	Systems Eng Analysis and Modeling	2001	Special	2001-F	40
SENG	5330	Risk Management	2002	Special	2002-F	40
SENG	5332	Decision Analysis for Sys Eng	2002	Special	2002-F	40
SENG	5334	Human Factors Engineering	2010	Special	2010-F	40
SENG	5532	Adv Decision Analy For Sys Eng	2004	Special	2004-F	40
SENG	5915	Cooperative Education Work Term	2010	Special	2011-F	100
SENG	5931	Research Topics-System Eng	2001	Special	2001-F	40
SENG	5939	Indep Study in Systems Eng	2001	Special	2001-F	40
SENG	6837	Systems Eng Capstone Project	2001	Special	2001-F	40
SENG	6939	Masters Thesis Research	2010	Special	2010-F	40
STAT	3308	Computational Statistics	2014	Special	2014-F	40
STAT	3334	Probability and Stat for Scientists and Engineers	2014	Special	2014-F	40
STAT	4344	Introduction to Probability	2014	Special	2014-F	40
STAT	4345	Introduction to Statistics	2014	Special	2014-F	40
STAT	4346	Probability for Actuarial Exam P1	2014	Special	2014-F	40
STAT	4348	Intro to Financial Math for Exam FM	2014	Special	2014-F	40
STAT	5135	Applied Statistical Methods	1998	Special	2011-F	40
STAT	5431	Theory and Application of Probability	2014	Special	2015-F	40
STAT	5432	Theory and Applications of Statistics	2014	Special	2014-F	40
STAT	5531	Multivariate Analysis	2014	Special	2014-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
STAT	5532	Linear Models and Regression Ana	2014	Special	2014-F	40
STAT	5533	Statistical Computing	2004	Special	2011-F	40
STAT	5534	Sampling Methods	2014	Special	2014-F	40
STAT	5535	Experimental Design and Analysis	2014	Special	2014-F	40
STAT	5537	Statistical Modeling and Methods	2014	Special	2014-F	40
STAT	5538	Categorical Data Analysis	2014	Special	2014-F	40
STAT	5634	Data Visualization	2019	Special	2018-F	40
STAT	5631	Reliab Anly & Quality Control	2014	Special	2014-F	40
STAT	5635	Applied Time Series Analysis	2019	Special	2018-F	40
STAT	5636	Bayesian Data Analysis	2019	Special	2018-F	40
STAT	5637	Applied Stochastic Models	2019	Special	2018-F	40
STAT	5739	Intern in Statistics	2019	Special	2018-F	40
STAT	5931	Research Topics in Statistics	2014	Special	2014-F	40
STAT	5939	Indt Study in Statistics	2014	Special	2014-F	40
STAT	6837	Stat Research and Consulting I	2000	Special	2012-F	40
STAT	6838	Stat Research and Consulting II	2000	Special	2012-F	40
STAT	6939	Masters Thesis Research	2015	Special	2015-F	40
SWEN	4314	Interface Engineering	2019	Special	2018-F	40
SWEN	4318	Virtual Worlds, Sims, and Animation Scripting	2019	Special	2018-F	40
SWEN	4320	Intro to Software Process and Project Mgmt	2010	Special	2010-F	40
SWEN	4342	Software Engineering	1997	Special	1996-F	40
SWEN	4343	Current Tools and Innovative Technologies	1999	Special	1999-F	40

Rubric	ID #	Course Title	Year	Fee Type	Term	Fee (\$)
SWEN	4345	Personnel Software Process	2000	Special	2000-F	40
SWEN	5130	Requirements Engineering	1999	Special	1999-F	40
SWEN	5134	Data Science and R in Software Engineering	2021	Teaching	2020-F	40
SWEN	5230	Software project Management	2000	Special	2000-F	40
SWEN	5232	Software Construction	1997	Special	1996-F	40
SWEN	5233	Software Architecture	1997	Special	1996-F	40
SWEN	5234	Software Engineering Processes	1999	Special	1999-F	40
SWEN	5235	Personal Software Process	2019	Special	2018-F	40
SWEN	5236	Engineering Software	2021	Teaching	2020-F	40
SWEN	5237	Engineering Software	2021	Teaching	2020-F	40
SWEN	5239	Agile Software Development	2021	Teaching	2020-F	40
SWEN	5430	Software Metrics	2000	Special	2000-F	40
SWEN	5431	Testing, Validation, Verification	1998	Special	1997-F	40
SWEN	5530	Software Safety	2019	Special	2018-F	40
SWEN	5535	Reuse and Re-Engineering	2019	Special	2018-F	40
SWEN	5739	Intern in Software Engineering	2019	Special	2018-F	40
SWEN	5931	Res. Topics in Software Eng.	1997	Special	1996-F	40
SWEN	5939	Indt Study Software Engineering	1997	Special	1996-F	40
SWEN	6837	Software Eng. Capstone Project	1998	Special	1997-F	40
SWEN	6838	Software Eng. Capstone Project	1998	Special	1997-F	40
SWEN	6939	Master's Thesis Research	1997	Special	1996-F	40

Variable Tuition and Fee Schedule for Undergraduate Students

CR HR	RES UG	NR/F UG	TUI DESUG	TUI DES NR/F UG	ST SVC	INFO RES	REC WELL	EXT ACC	INT EDU	ST CENT	ACDM RCRD	R-UG TOTAL	NR/F UG TOTAL
1	50	459	189	332	42	28	110	7	4	30	29	489	1,041
2	100	918	378	664	84	56	110	14	4	30	29	805	1,909
3	150	1,377	567	996	126	84	110	21	4	30	29	1,121	2,777
4	200	1,836	756	1328	168	112	110	28	4	30	29	1,437	3,645
5	250	2,295	945	1,660	210	140	110	35	4	30	29	1,753	4,513
6	300	2,754	1,134	1,992	252	168	110	42	4	30	29	2,069	5,381
7	350	3,213	1,323	2,324	252	196	110	49	4	30	29	2,343	6,207
8	400	3,672	1,512	2,656	252	224	110	56	4	30	29	2,617	7,033
9	450	4,131	1,701	2,988	252	252	110	63	4	30	29	2,891	7,859
10	500	4,590	1,890	3,320	252	280	110	63	4	30	29	3,158	8,678
11	550	5,049	2,079	3,652	252	308	110	63	4	30	29	3,425	9,497
12	600	5,508	2,268	3,984	252	336	110	63	4	30	29	3,692	10,316
13	650	5,967	2,457	4,316	252	336	110	63	4	30	29	3,931	11,107
14	700	6,426	2,646	4,648	252	336	110	63	4	30	29	4,170	11,898
15	750	6,885	2,835	4,980	252	336	110	63	4	30	29	4,409	12,689
16	800	7,344	3,024	5,312	252	336	110	63	4	30	29	4,648	13,480
17	850	7,803	3,213	5,644	252	336	110	63	4	30	29	4,887	14,271
18	900	8,262	3,402	5,976	252	336	110	63	4	30	29	5,126	15,062
19	950	8,721	3,591	6,308	252	336	110	63	4	30	29	5,365	15,853
20	1,000	9,180	3,780	6,640	252	336	110	63	4	30	29	5,604	16,644
21	1,050	9,639	3,969	6,972	252	336	110	63	4	30	29	5,843	17,435
22	1,100	10,098	4,158	7,304	252	336	110	63	4	30	29	6,082	18,226
23	1,150	10,557	4,347	7,636	252	336	110	63	4	30	29	6,321	19,017
24	1,200	11,016	4,536	7,968	252	336	110	63	4	30	29	6,560	19,808
25	1,250	11,475	4,725	8,300	252	336	110	63	4	30	29	6,799	20,599
26	1,300	11,934	4,914	8,632	252	336	110	63	4	30	29	7,038	21,390
27	1,350	12,393	5,103	8,964	252	336	110	63	4	30	29	7,277	22,181
28	1,400	12,852	5,292	9,296	252	336	110	63	4	30	29	7,516	22,972
29	1,450	13,311	5,481	9,628	252	336	110	63	4	30	29	7,755	23,763
30	1,500	13,770	5,670	9,960	252	336	110	63	4	30	29	7,994	24,554

*The table above does not include housing, meal plans, books, student insurance, international student fee, special course fees, differential tuition, or parking. The University may change tuition rates and other charges without notice when so directed by the Board of Regents or the State of Texas.

Fee Schedule Codes

Abbreviation	Definition
CR HR	Semester Credit Hour
RES UG	Texas Residents
NR/F UG	Non-residents
TUI DES UG	Tuition Designated Residents
ST SVC	Student Service
INFO RES	Information Resource Fee
ACDM RCRD	Academic Record Fee
TUI DES NR/F UG	Tuition Designated Non-Residents
EXT ACC	Extended Access Support
INT EDU	International Education Fee
ST CENT	Student Center
REC WELL	Recreation and Wellness Center Fee

Payment Plans Available for payment of Tuition and Fees

Installment Plan

At the time of original registration UHCL students may pay their tuition and fees in full or they may elect a four-payment option (one quarter of tuition and fees at time of registration and the remaining balance split in three equal installments). There is a \$20 non-refundable fee for the multiple payment plan. The installment plan is not available for summer semesters. Courses added after the original registration period will adjust into the installment plan and an additional amount may be due depending on the add/drop activity.

Subsequent dates of payments will be listed on the fee statement. Students are responsible for all installment payments being made on time. Additional payment notices are not mailed. A \$10 late fee is charged for each late installment. Students who do not meet installment payment deadlines will have their records encumbered until all fees and penalties have been paid. At semester's end, any students who have not fulfilled their financial obligation on the installment contract will have their records

encumbered and no grades or transcripts will be issued. There will be a \$50 default fee attached to the existing debt. In order for students to be eligible for enrollment in subsequent semesters and have the encumbrance removed from their records, all penalties and contract balances must be paid in full.

Short Term Loan

At the time of original registration at UHCL students may pay their tuition and fees in full or they may elect a two-payment option (one quarter of tuition and fees due at the time of registration and the remaining amount due later in the term). There is a \$20 non-refundable fee for the payment plan. Courses added after the original registration period will adjust into the payment plan and an additional amount may be due depending on add/drop activity.

Subsequent due date of remaining payment will be listed in the student's E-Services account under the "charges due" tab. Additional payment notices are not mailed. The Short Term Loan bears a 5% interest per annum. Students who do not meet the final payment deadline will have their records encumbered until all fees and penalties have been paid. At semester's end, any students who have not fulfilled their financial obligation on the Short Term Loan contract will have their records encumbered and no grades or transcripts will be issued. In order for students to be eligible for enrollment in subsequent semesters and have the encumbrance removed from their records, all penalties and contract balances must be paid in full.

Rebates or Exemptions from Tuition and Fees

The statutes of the state of Texas describe certain instances in which students may be exempted from tuition and/or fees. The various types of exemptions and the Tuition Rebate Program are described below. In the case of exemptions, students have the responsibility to initiate the action of applying for an exemption through the Office of Financial Aid and to provide evidence that all conditions required for the exemption have been met. Until such time as the exemption is established, students will be required to pay all tuition and fees. Students should apply to the Office of Financial Aid at least one month prior to registration for the term in which they plan to utilize the exemption provision, but in all cases such requests must be received no later than the census date of any semester to be effective for that semester. For more information contact the Office of Financial Aid. In the case of a rebate, the student must apply for the rebate at the time of graduation in the Office of Registrar. Once the rebate is verified by the Office of Registrar, the refund will be issued by Student Business Services.

Tuition Rebate for Undergraduates

Tuition rebates to a maximum of \$1,000 are available for qualified students who have attempted no more than three hours in excess of the minimum number of semester credit hours required to complete the degree as defined by the catalog under which they graduated. Certain restrictions apply:

- Students must have enrolled for the first time in an institution of higher education in the fall of 1997 semester or later.
- Students must be requesting a rebate for work related to a first baccalaureate degree received from a Texas public university.
- Students must have attempted all course work in Texas resident status.

For more information, see the Office of Registrar. Qualified students must apply for the rebate at the time they apply for graduation.

Texas Veterans (Hazlewood Act)

Legal residents of Texas may be exempted from tuition and certain required fees under the Hazlewood Act. Texas veterans must meet the eligibility criteria listed in the Financial Aid section of this catalog. UHCL Hazlewood applications should be submitted to the UHCL Office of Veterans Affairs 30 days prior to registration.

Children of Texas Veterans

Exemption from payment of tuition and certain fees extends to children of members of the armed forces who were killed in action or died while in service in World War II or in the Korean conflict or in any subsequent actions, and to orphans of members of the Texas National Guard and the Texas Air National Guard killed since Jan. 1, 1946 while on extended active duty.

Children of Disabled Public Employees

Children of certain eligible firefighters, peace officers, employees of the Texas Department of Criminal Justice and game wardens who have suffered injury resulting in death or disability sustained in the line of duty may, under certain conditions, be exempted from payment of tuition and certain fees.

Deaf or Blind Students

Deaf or blind persons who are Texas residents may, under certain conditions, be exempted from payment of tuition and certain fees.

Children of Prisoners of War or of Persons Missing in Action

Dependent children under 18 years of age, or persons under 25 years of age who receive the majority of their support from their parent(s) may be exempted from the payment of tuition and certain fees if they are the dependent children of any person who is a domiciliary of Texas on active duty in the armed forces of the United States, and who at the time of registration is classified by the Department of Defense as a prisoner of war or as missing in action.

Peace Officer Waiver

If you are employed as a full-time peace officer by the state of Texas or one of its political subdivisions, and you are enrolled in our B.S. in Criminal Justice and Criminology degree program, you may be eligible for a tuition and laboratory fee exemption. This exemption applies to selected course work. If you are a volunteer peace officer you do not qualify for the exemption.

Firefighter Waiver

If you are employed as a firefighter by a political subdivision of Texas, or are an active member of an organized volunteer fire department, and are enrolled in our B.S. in Public Service Leadership degree program, you may be eligible for a tuition and laboratory fee exemption. This exemption applies to selected course work.

Good Neighbor Waiver

Qualified native-born students from the other nations of the American hemisphere and from Latin American countries designated by the United States Department of State may be exempt from the payment of certain tuition and fees.

Child of Protective Services or Child of Foster Care or Other Residential Care

Exemption for payment of tuition and fees for students meeting the qualifications outlined in Texas Education Code 54.366 or 54.367.

Vocational Rehabilitation

The Texas Department of Assistive and Rehabilitative Services (DARS) offers assistance for tuition and required fees to students having certain physical or emotional disabilities, provided vocational objectives selected by the individuals with disabilities have been approved by appropriate representatives of DARS. Through this state agency, other rehabilitation services are available to assist persons with disabilities to become employable. Applications for assistance should be made to the nearest DARS office.

Refund Policies

Refunds on Withdrawals

A student is considered withdrawn if they are no longer enrolled in the current term. Students receiving financial aid are advised to contact the Office of Financial Aid prior to making changes in their enrollment status. Student services and privileges, including library services and use of computer labs, terminate when a student withdraws from the university. Class days are counted from the first official class day of a semester or session and include weekdays and Saturdays. Refunds will first be applied to outstanding obligations.

Students who pay tuition and fees for any term and who subsequently cancel their registration through the Office of Registrar prior to the first day of classes for that term as specified in the academic calendar are entitled to a full refund minus a \$15 matriculation fee and the \$29 Academic Record Fee and any other non-refundable fees.

Students who officially withdraw from the university after classes begin may be eligible for a partial refund of tuition and fees. The applicable refund is based upon the courses in which students are enrolled on the date of official withdrawal. Refunds are based on the amount billed and not what has been paid.

Once a student registers, he or she is responsible for the total fees assessed regardless of whether the installment or short term loan option is used. Refund percentages are applied to total fees assessed and not the amount paid. This means if you withdraw after making your first payment of tuition and fees, but after the 100% withdrawal period, a credit balance will first be applied to any outstanding amount due.

Withdrawal from courses or from the university can be made through E-Services prior to the deadline stated in the academic calendar. Withdrawals in writing are effective on date of receipt. Letters can be faxed to the Office of Registrar at 281-283-2530. The university reserves the right to deduct from the refund any outstanding financial obligations to the university.

No refund will be made to students who leave the university without officially withdrawing. Refunds are made in accordance with this schedule:

Fall and Spring Semesters (Regular Session)

- Prior to the 1st class day - 100%
- On or before the 5th class day - 80%
- 6th through 10th class day - 70%
- 11th through 15th class day - 50%
- 16th through 20th class day - 25%
- 21st class day and thereafter - No Refund

All Semesters (Eight and Nine Week Sessions)

- Prior to the 1st class day - 100%
- On or before the 3rd class day - 80%
- 4th through 6th class day - 50%
- 7th day and thereafter - No Refund

Summer Semester (Three, Four, and Five Week Sessions)

- Prior to the 1st class day - 100%
- On the first class day - 80%
- On the 2nd class day - 50%

- 3rd class day and thereafter – No Refund

Class days, including Saturdays, are counted from the first day that classes begin at the university as indicated in the academic calendar for that semester. Refunds are not made immediately upon official withdrawal. They will be processed after completion of all university registrations for that semester. Refunds will be processed through BankMobile or credit card used for payment.

Refunds on Dropped Courses

Dropped courses refunds only apply when one or more classes from a student's schedule are removed but remain enrolled in at least one course. Students receiving financial aid are advised to contact the Office of Financial Aid prior to making changes in their enrollment status. Reducing semester hours to zero is considered a withdrawal and the Refund on Withdrawals schedule will be followed. Please refer to the Refund on Withdrawals section of the catalog.

Students who drop classes within the first 12 class days of a 15-week session; within the first four class days of an eight-week or nine-week session or within the first two class days of a three-week, four-week and five-week session and who remain enrolled in the university for that semester may be refunded the applicable tuition and fees for classes dropped. No refunds will be made for courses dropped after the 12th class day during a 15-week session, the 4th class day of an 8-week or 9-week session, or the second class day of a three-week, four-week and five-week session. Refunds will be processed through BankMobile or credit card used for payment. UHCL has partnered with BankMobile to provide disbursement services for financial aid and tuition refunds. The refunds quoted are those authorized at the time of publication of this catalog but are subject to change without notice as necessitated by the university or legislative action.

Payment Agreement

The state of Texas requires that any student unable to pay their tuition and fees in full by the due date established by the university must enter into a payment plan with the university. The payment agreement constitutes a contract between the student and the university wherein the student acknowledges financial obligation to the university in writing (electronic signature) through their self-service student account.

Student Financial Responsibility

Students must meet financial responsibilities to the university. Writing checks on accounts with insufficient funds and failure to meet all financial obligations are considered a lack of financial responsibility.

Students forfeit check writing and cashing privileges for the balance of the academic year if they write two bad checks (unless due to bank error) to the university for tuition and fees, to the university offices for payment of other university obligations or for check cashing purposes.

Students who have written a bad check to the university (unless due to bank error) will be assessed a \$20 service charge. It is the responsibility of students to present evidence of bank error. Encumbrances and returned checks must be cleared by cash or cashier's check. Returned checks will not be re-deposited.

The university will not accept two-party checks for payment or check cashing privileges.

Students must be in good financial standing with the university at all times. Failure to meet financial responsibilities to the university may subject students to withdrawal and disqualification for registration for a subsequent term. Transcripts will not be given to or on behalf of students until all financial responsibilities have been met. Failure to clear outstanding debts could result in the debt being placed with a collection agency, additional collection fees charged, and being reported to the Credit Bureau of Greater Houston.

Veteran Services

It is the mission of the Capt. Wendell M. Wilson Office of Veteran Services to help veterans and their dependents flourish in their higher education pursuits. We act as a liaison between the military-connected student, the school, the Department of Veterans Affairs, and the Texas Veterans Commission in order to ensure these goals are reached. Our staff members are committed to assisting veterans and their eligible dependents with federal or state education benefits gained through military service.

Military-connected students entering UHCL should contact the Capt. Wendell M. Wilson Office of Veteran Services immediately to establish their benefits in a timely manner. For one-on-one counseling regarding your benefits, contact us directly at vso@uhcl.edu or by phone at 281-283-3071.

Services include:

- Providing certification of enrollment for the following federal benefits: Post 9/11 GI Bill®, Montgomery GI Bill, Reservist Educational Assistance, Vocational Rehabilitation and Employment Program and Dependent Educational Assistance.
- Processing of Hazlewood Exemptions and Hazlewood Legacy Act.
- Determining eligibility for House Bill 269 (military service credit).
- Establishing residency for those who are receiving federal or state veteran education benefits.

Federal (VA) Education Benefits

Covered individuals (students entitled to Chapter 33, Post 9/11 GI Bill® or Chapter 31, Vocational Rehabilitation and Employment) are permitted to attend courses during the period beginning on the date on which the individual provides to the University of Houston – Clear Lake Office of Veteran Services a certificate of eligibility for entitlement to educational assistance under Chapter 31 or 33 (a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website – eBenefits, or an electronic IPPS/Tungsten authorization form for Chapter 31 authorization purposes) and ending on the earlier of the following dates:

The date on which payment from VA is made to the institution.

90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility.

No penalty will be imposed due to a delayed disbursement funding from VA under Chapter 31 or 33.

Students entitled to Chapter 33 or Chapter 31 must note the following additional requirements for processing:

Submit to the Office of Veteran Services: a certificate of eligibility for entitlement no later than the first day of term, a certification request form each semester to request your entitlement be used, a Joint Service Transcript or CCAF transcript, a DD214, and a matriculated degree plan.

Any amount ineligible to be paid under the VA education benefit disbursement is subject to regular payment due dates and fees as outlined Payment Due Dates schedule available from Student Business Services.

Fall and Spring Semesters

Under the Post-9/11 GI Bill®, a student enrolled at more than one-half time can qualify for a monthly housing allowance based on DoD's Basic Allowance for Housing (BAH) rate for an E-5 with dependents. VA determines eligibility for housing allowance by calculating the rate of pursuit: a percentage calculated by dividing the number of credits in which the student is enrolled by the number of credits considered to be full time.

Full time enrollment for undergraduate students is 12 credit hours or more. To receive the maximum monthly housing allowance, at least one course is required to be either lecture-based or a hybrid course that includes a lecture component.

Students are responsible for notifying the Office of Veteran Services if their enrollment changes after certification.

Online courses

Individuals only enrolled in distance learning courses will be eligible for a monthly housing allowance equal to 50% of the national average of all Basic Allowances for Housing. For the current rate, please visit www.va.gov.

Summer Semesters

Summer enrollment varies by the term in which the student is enrolled. To ensure your summer enrollment meets full time during the summer, please contact the Department of Veteran Affairs at 888-442-4551.

Students are responsible for notifying the Office of Veteran Services if their enrollment changes after certification.

Training Time (Chapters 30, 35, and 1606)

VA benefits, for the chapters listed above, are paid based on training time. In a standard fall and spring semester, VA measures training time as follows:

Undergraduate students:

- 12 credits – full-time
- 9–11 credits – $\frac{3}{4}$ -time
- 6–8 credits – half-time
- 4–5 credits – less than half-time ($<\frac{1}{2}$ -time)
- 1–3 credits – $\frac{1}{4}$ -time or less ($<\frac{1}{4}$ -time)

Hazlewood Act

The Hazlewood Act passed by the Texas Legislature provides a waiver of tuition and certain fees for Texas veterans. Hazlewood benefits are not transferred from one state university to another therefore, veterans must reapply and provide the Capt. Wendell M. Wilson Office of Veteran Services with all necessary documents. For a complete list of documents, please visit www.uhcl.edu/veteran-services.

A veteran may qualify for benefits under the Hazlewood Act if he or she:

- Has received an honorable discharge or separation or a general discharge under honorable conditions as indicated on the Veteran's Certificate of Release or Discharge from Active Duty (DD Form 214).
- At the time of entry into active duty the U.S. Armed Forces, designated Texas as Home of Record; or entered the service in Texas; or was a Texas resident.
- Served at least 181 days of active duty service (excluding training).

- Has no federal veteran's education benefits, or have no federal veteran's education benefits dedicated to the payment of tuition and fees only (such as Chapter 33 or 31; for term or semester enrolled that do not exceed the value of Hazlewood benefits.
- Not be in default on a student loan made or guaranteed by the State of Texas.
- Enrolls in classes for which the college receives tax support (i.e., a course that does not depend solely on student tuition and fees to cover its cost), unless the college's governing board has ruled to let veterans receive the benefit while taking non-funded courses.
- Meets the GPA and excessive hour requirements of the institution's satisfactory academic progress policy in a degree or certificate program as determined by the institution's financial aid policy and, as an undergraduate student, not be considered to have attempted an excessive amount of credit hours.

Spouses and dependent children of eligible active duty, reserve and Texas National Guard who died in the line of duty or as a result of injury or illness directly related to military service, are missing in action or who became totally disabled for purposes of employability as a result of a service-related injury or illness are entitled to each receive a 150 credit hours exemption. For more information, please visit www.tvc.texas.gov.

The Legacy Act allows veterans eligible for the Hazlewood Act to transfer unused Hazlewood hours to an eligible child. A child (legacy recipient) must:

- Be classified by the institution as a Texas resident.
- Be the biological child, stepchild, adopted child, or claimed as a dependent in the current or previous tax year.
- Be 25 years old or younger on the first day of the semester or term for which the exemption is claimed (unless granted an extension due to a qualifying illness or debilitating condition).
- Meet the GPA and excessive hour requirements of the institution's satisfactory academic progress policy in a degree or certificate program as determined by the institution's financial aid policy and, as an undergraduate student, not be considered to have attempted an excessive amount of credit hours.

Students interested in using this benefit should contact the Capt. Wendell M. Wilson Office of Veteran Services for application instructions at vso@uhcl.edu.

Hazlewood Exemption Deadline

If the student provides his or her eligibility for the Hazlewood Exemption before the end date of each semester, then the institution must honor the waiver. Applications and all supporting documentation must be received by the institution no later than the last day of class in order to be evaluated for the semester or term.

Satisfactory Academic Progress for Veteran Benefits

Satisfactory academic progress for veterans receiving federal veteran educational benefits is defined by the Department of Veteran Affairs. Undergraduates must maintain a cumulative GPA of 2.000.

Veterans failing to achieve the required cumulative GPA will be placed on probation for one semester. At the end of the probationary semester, veterans who:

- Have not achieved the required semester GPA will be reported to VA as making unsatisfactory academic progress.
- Have achieved the required semester GPA but not the required cumulative GPA will continue to be on probation.

Satisfactory academic progress is also required of veterans, spouses and dependents utilizing the Hazlewood Exemption. Students must:

- Meet the GPA requirements of the institution's satisfactory academic progress policy in a degree or certificate program as determined by the institution's financial aid policy.
- Not be considered to have attempted an excessive amount of credit hours as determined by the institution's financial aid policy.

Disabled Veteran Parking

In accordance with Texas Transportation Code 681.008 and 504.202, qualifying veterans will be issued a parking permit free of charge. The free permit is to be used for the Veteran only or while they are in the vehicle. Those exempt from paying a fee must display the following license plates on the vehicle:

- Disabled veteran
- Congressional Medal of Honor
- Former prisoner of war
- Pearl Harbor survivor
- Purple Heart recipient
- Legion of Valor (Air Force Cross, Distinguished Service Cross, Army Distinguished Service Cross, Navy Cross)
- Legion of Merit license plates
- Bronze Star medal
- Distinguished Service medal
- Silver Star medal

To request a free parking permit, the following items will need to be submitted to the Capt. Wendell M. Wilson Office of Veteran Services:

1. Supporting documentation which proves their status listed above (this is the same proof shown at the Tax Assessor's Office to obtain your specialty license plates).
2. Current UHCL student/faculty/staff ID.
3. Texas driver's license.

Residency

Pursuant to Texas Education Code, Section 54.058 (k), military personnel, veterans and dependent students who are receiving federal VA education benefits may qualify for in-state tuition and fee rates, regardless of the length of time residing in Texas. If you are receiving federal VA education benefits and are being assessed out-of-state tuition, please contact the Capt. Wendell M. Wilson Office of Veteran Services for assistance.

House Bill 269

House Bill 269 allows veterans who enroll in Texas universities to be eligible to receive undergraduate college credit for the time they spent in the services if certain requirements are met.

Eligible veterans can receive college credit for an additional 12 semester credit hours of general elective course work to satisfy the degree requirements for your program of choice.

In order to be eligible to receive college credit for military service, you must have:

- 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.
- Completed a minimum of two years of Active Duty service in the Armed Forces; unless medically discharged.
- Been honorably discharged from the armed forces.

Contact the Capt. Wendell M. Wilson Office of Veteran Services to discuss your eligibility.

Priority Registration

Veterans who have self identified in the Office of Veteran Services will be eligible for priority registration. The Office of the Registrar sends announcements to specify times and other instructions for completing the enrollment process. Registration is completed online by logging into E-Services at www.uhcl.edu/eservices. Please refer to the Academic Calendar online for Registration dates and deadlines.

Colleges and Departments

College of Business

Mission

The mission of the College of Business (BUS) at the University of Houston-Clear Lake is to provide quality lifelong education for the Houston/Galveston metropolitan population. Programs serve both full-time students and working professionals in the region. Instruction is designed for flexible hours and fosters development of business skills with global applicability. Faculty pursue a blend of research contributing to knowledge in professional practice, innovative pedagogy and discipline-based scholarship.

Accreditations and Rankings

The College of Business' degree programs have been well received by our peers and external stakeholders. Around 1% of the world's business schools have earned business and separate accounting accreditation from the Association to Advance Collegiate Schools of Business International - and we're one of them. Both our undergraduate and graduate programs have achieved [AACSB accreditation](#), including our online MBA program.

In addition, we consistently rank in U.S. News and World Report's list of top online graduate business programs and online MBA programs around the nation.

Departments

- [Department of Accounting](#)
- [Department of Decision Sciences, Economics, Finance, and Marketing](#)
- [Department of Management](#)
- [Department of Healthcare Administration](#)
- [Department of Management Information Systems](#)

Contact Us

Office of the Dean

Phone: 281-283-3100

Web: www.uhcl.edu/business

Bayou Building 2239

Office of Academic Advising

Phone: 281-283-3110

Email: busadvoff@uhcl.edu

Web: www.uhcl.edu/business/academic-advising
Bayou Building 2111

Department of Accounting

University of Houston-Clear Lake's Department of Accounting offers you both a robust foundation in contemporary accounting and business principles and the well-rounded education that modern employers desire. UHCL is one of only two universities in Houston with an AACSB International accreditation specifically for accounting. Our degree provides you with the necessary edge to be successful while preparing for a career in auditing, forensic accounting, financial accounting, financial analysis, internal auditing, managerial accounting or tax planning.

Undergraduate Degrees

- [Accounting B.S.](#)
- [Professional Accounting Integrated B.S. and M.S.](#)
- [Professional Accounting Integrated B.S./M.S. with a Concentration in Management Information Systems](#)

Department of Decision Sciences, Economics, Finance and Marketing

Taught by professionals with vast real-world knowledge and practical experience, students who enroll in a degree program with the Department of Decision Sciences, Economics, Finance and Marketing in University of Houston-Clear Lake's College of Business will receive sound management principles and the skills necessary for professional advancement. Students will gain valuable insights throughout their coursework at UHCL, complete with hands-on learning opportunities and a highly motivated faculty to support and assist every step of the way.

Undergraduate Degrees

- [Marketing B.S.](#)
- [Finance B.S.](#)

Minors

- [Minor in Economics](#)
- [Minor in Marketing](#)

Department of Healthcare Administration

Addressing the growing need for more qualified health care administrators nationwide, the Department of Healthcare Administration in University of Houston-Clear Lake's College of Business will prepare you students for long-term career success. We will ensure that you are ready for a management role in a hospital, insurance provider, pharmaceutical company, physician practice or public health advocacy group. Our prime location in the greater Houston area offers you access to one of the leading health care centers in the world and the leaders who helped create it.

Undergraduate Degrees

- [Healthcare Administration B.S.](#)
- [Healthcare Services B.A.S.](#)

Department of Management

In today's ultra-competitive job market, you deserve the best possible education as you aim for a long career in management. Begin by pursuing a degree in the Department of Management at the University of Houston-Clear Lake. You will acquire the necessary leadership, analytical and problem-solving skills by completing coursework that focuses on environmental management, entrepreneurship and small business management, human resources and general business. There will also be opportunities for you to enhance your skills by taking a vast array of electives including dispute resolution, organizational communication, human resources, and employee training. You will graduate with the expertise and training required to face a complex collection of challenges, whether financial, legal, environmental, human or material.

Undergraduate Degrees

- [Environmental Management B.S.](#)
- [General Business B.S.](#)
- [Legal Studies B.S.](#)
- [Management B.S.](#)

Department of Management Information Systems

As the reliance upon technology increases, so does the demand for qualified management information systems specialists who can maintain and enhance the infrastructure for that technology. During your studies at the University of Houston - Clear Lake's Department of Management Information Systems,

you will engage in the hands-on applications of both hardware and software. Our degree program will prepare you to pursue an array of highly coveted information technology positions across all industries.

Undergraduate Degrees

- [Management Information Systems B.S.](#)

College of Education

Building on a solid base of liberal arts and general studies, the College of Education (COE) seeks to produce thoughtful, skilled and humane educators. Numerous plans are available to help students develop into highly qualified professionals.

The COE offers an extensive choice of certification plans in undergraduate specializations. Many alumni find employment in a variety of educational settings, while others pursue careers in industry, government, independent practice or consulting. Plans in the COE are fully approved by the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA).

The COE believes that teaching, learning and educational leadership should be learner-centered. Whether referring to university pre-service teachers, in-service teachers pursuing advanced studies, others in professional educator roles or the learners influenced by these educators, the focus of teaching and learning is on the learner. This conceptual framework guides the way in which the COE structures its courses and degree plans. This is reflected in the COE mission statement. It is also the central theme reinforced in classes. The vision of the COE is of a learner-centered community in which success for all students is paramount.

Mission

The mission of the COE is to prepare outstanding educators and leaders in education through achievement of the highest standards of knowledge, skills and dispositions to assist all students in learning. The mission is accomplished by promoting:

- Excellence and innovation in learner-centered teaching and learning for all.
- The value and understanding of all types of diversity.
- Professional and personal integrity.
- Effective use of technologies.
- Partnerships with and service to the community.
- Ongoing assessment for both candidate and program improvement.
- Research to expand the knowledge base for teaching and learning.

Although each of these is critically central to the goals and directions of the COE at UHCL, the first, "promoting excellence and innovation in learner-centered teaching and learning for all" is the most succinct statement of what the faculty within the COE value.

Departments

- [Department of Counseling, Special Education, and Diversity](#)
- [Department of Curriculum and Instruction](#)
- [Department of Educational Leadership and Policy Analysis](#)
- [Department of Literacy, Library, and Learning Technologies](#)

Contact Us

Office of the Dean

Phone: 281-283-3500

Web: www.uhcl.edu/education

Bayou Building 1231

Office of the Associate Dean

Phone: 281-283-3620

Bayou Building 1231

Office of Academic Advising

Phone: 281-283-3600

Email: education@uhcl.edu

Web: www.uhcl.edu/education/advising

Bayou Building 1231

Center for Professional Development of Teachers

(CPDT)

Phone: 281-283-3612

Bayou Building 1231

Center for Educational Programs

(CEP)

Phone: 281-283-3529

Arbor Building 1300

Office of Educator Certification

Phone: 281-283-3618

Bayou Building 1231

Office of State Assessments

Phone: 281-283-3608

Bayou Building 1231

Research Center for Language and Culture

Phone: 281-283-3580

Bayou Building 1325

Learning Resources Review Center

Phone: 281-283-3900

Bayou Building 3402

New Teachers Online

([NTOL](#))

Accreditation and Accountability

University of Houston–Clear Lake is accredited by the Southern Association of Colleges and Schools (SACS). Unique to education itself are other accrediting and accountability bodies with strict guidelines and standards that must be met in order for the College of Education at UHCL to recommend educators for teaching certificates, supplemental certificates, master teacher certificates and certificates requiring a master's degree. Below is a brief description of the accountability and accreditation measures of the U.S. Department of Education (USDE) and the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA) and how the university measures up to those criteria and standards.

Department of Education Accountability

The Higher Education Opportunity Act (Public Law 110–315) (HEOA) was enacted on Aug. 14, 2008, and reauthorizes the Higher Education Act of 1965, as amended. The Act established a reporting system for the U.S. Department of Education (USDoE) to collect information annually on the quality of the teacher training programs of states and institutions of higher education. Within Title II, the USDoE mandates federal accountability measures to determine how well all higher education institutions prepare teachers, what states require of individuals before they are allowed to teach and how institutions and states are raising their standards to provide highly qualified educators. The USDoE administers Title II and gathers information from all the states each October for distribution in April of the following year. Institutions are ranked on aggregate and summary pass rates. The rankings show the percentages of program completers who demonstrated subject-matter competency by passing a required state assessment.

The pass rates of those who completed their teacher certification at UHCL during the 2018–2019 academic year were evaluated and compared to the pass rates of the state and national groups of program completers. At UHCL, students from 2018–2019 had an overall passing rate of 100% on all of their state

assessments. For a complete summary of all pass rates, see the federal Title II reporting Web site at <https://title2.ed.gov/Public/Home.aspx>.

SBEC/TEA Accreditation

UHCL is one of 134 educator preparation programs in the State of Texas that are accredited to recommend educators for certificates. The State Board for Educator Certification (SBEC)/Texas Education Agency (TEA) implements stringent guidelines and standards for initial and advanced levels of educator certification. TEA accreditation for 2018–2019 was based on candidate pass rate performance on state assessments, principal appraisals of beginning teachers and the field supervision of the teacher education candidates. TEA's last announcement of UHCL's overall final pass rate on all state assessments by the second attempt was 98% on the Pedagogy and Professional Responsibilities (PPR) state exams and 92% on the Content state exams. Now programs are evaluated on pass rates, principal appraisals of beginning teachers, field supervision support given to beginning teachers, and beginning teacher satisfaction surveys. UHCL met all state standards for each of those measures.

The administrative functions for the certification process are conducted by the Educator Certification and Testing Division of the TEA. Licensing authority remains with the SBEC/TEA. Further information on UHCL's program performance is found at [Accreditations](#).

Policy on Professional Dispositions

Students who are seeking teacher certification or who are enrolled in the College of Education are required to read the "Statement on Professional Dispositions, Disposition Expectations Checklist, and Disposition Resolution Process," which defines the behavioral standards the COE expects of its students. Students may be withdrawn from their program for not meeting the academic requirements, after a review process. They may also be withdrawn for not meeting the professional disposition standards following the disposition resolution process. The Statement on Professional Dispositions is found at www.uhcl.edu/education/student-resources.

Field Experience Courses

There are many COE courses that require field experiences. Students in these courses are required to spend part of their time off campus, in most cases, in school classrooms. The state of Texas requires each of these students to pass a criminal background check before being allowed in the classroom for the field experience. It is the student's responsibility to meet this requirement, as field experience is key to those designated courses.

Criminal Background Checks

As required by Texas Senate Bill 9, a school will conduct a criminal background check on each student before the student is allowed in the school for a field experience. In order for the criminal background check to be conducted, each student must complete all required documentation. Part of the documentation will require that each student provide his/her social security number and driver's license

number. If a student does not have a driver's license, then, at the discretion of the school district, other official numbers (visa, passport, etc.) may be required. The criminal background check is conducted for each field-experience course each semester and for each district in which the student is completing a field experience. If a student is denied access to a district based on the criminal background check, the student cannot get credit for the course. The student will not be able to register for any further field experience course until the situation has been corrected. For information on the Code of Ethics for Texas educators, refer to the [Texas Administrative Code Web site](#).

The state of Texas (by House Bill 1508 in 2017), the Higher Education Coordinating Board (THECB), the Texas Education Agency (TEA) and the State Board for Educator Certification (SBEC) require that an educator preparation program inform all certification program applicants and candidates about the State's rules on criminal background checks from the Texas Occupation Code Chapter 53, the Texas Education Code Chapter 22.0831 and the Texas Administrative Code, part VII, Chapter 227, Subchapter B.

Annually the UHCL Registrar sends out an email to all UHCL students enrolled in a certificate/license program at UHCL informing them of the state's rules and requirements.

In addition, the College of Education requires all students entering a UHCL educator certificate program to confirm in writing that the candidate read and was informed by COE of the following:

1. An individual who has been **convicted of an offense or received deferred adjudication** may be ineligible for the issuance of an educator certificate upon completion of an educational program.
2. TEA will conduct a **national criminal history check** on the candidate when the candidate applies for an educator certificate and throughout the candidate's educator career.
3. The candidate has read TEA's National Criminal History Checks-FAQs at:
4. The candidate understands that the candidate may request a **Preliminary Criminal History Evaluation** from TEA if the candidate has any reason to believe that the candidate may be ineligible for educator certification due to a conviction or deferred adjudication for a felony or misdemeanor offense, per Texas Occupation Code Section 53.102 <http://www.statutes.legis.state.tx.us/Docs/OC/htm/OC.53.htm>. The candidate has read TEA's Preliminary Criminal History Evaluation-FAQs at https://tea.texas.gov/Texas_Educators/Investigations/Preliminary_Criminal_History_Evaluation-FAQs/
5. The candidate has read the current guidelines issued by SBEC on the following:
 - Disciplinary Policy Guidelines -
 - Educator Discipline- FAQs - https://tea.texas.gov/Texas_Educators/Investigations/Educator_Discipline_-_FAQs/

Centers and Offices

Center for Professional Development of Teachers (CPDT)

The College of Education has been designated as a Center for Professional Development of Teachers (CPDT). The teacher preparation plan has been restructured to provide extensive school-based experiences for prospective educators. These expanded experiences include a two-semester internship/clinical teaching, field-based courses and close cooperation with a number of schools which have been designated as Professional Development School (PDS) sites. These sites operate under the philosophy that every staff member is a mentor, providing a rich and supportive environment for the preparation of professional educators. The CPDT coordinates field experiences and collaborates with the Center for Educational Programs (CEP) in providing a wide array of professional development opportunities. The CPDT also provides technological support and professional development for all Internship I and Internship II/Clinical Teaching candidates.

Field-based experiences and graduate internships and practicums take place in a variety of settings in 35 local school districts. Fifty-five schools have been designated as PDSs and provide pre-service internships and professional mentoring. In addition, the COE has an additional 133 affiliation agreements with other businesses and other school districts to provide both graduate internship/practicum placement and field experiences. All placement sites must have an approved UHCL Agreement of Affiliation on record with the CPDT office prior to beginning the practicum.

Professional Development Laboratory School (PDLS)

University of Houston-Clear Lake (UHCL) and Clear Creek Independent School District (CCISD) have entered into a partnership to maintain a Professional Development Laboratory School (PDLS). The PDLS is located at McWhirter Elementary School in Webster, Texas, and opened at the beginning of the 2002-2003 school year.

The College of Education acts on behalf of the University to oversee the PDLS. UHCL faculty provide instructional leadership, conduct research and engage in professional development. In addition, some COE courses are taught at the PDLS campuses. The main focus of the PDLS is to provide educational opportunities for UHCL and CCISD faculty, students and the school community. Faculty and students interested in being involved in the PDLS should contact the COE Associate Dean.

Center for Educational Programs (CEP)

The Center for Educational Programs provides academic and outreach services to students, faculty, schools, school districts, other educational entities and members of the community. The CEP coordinates the College of Education's clinical services, provides facilities and coordination for laboratory experiences, supports a broad range of programs for children and youth, offers non-credit courses

for area educators, assists local schools and school districts in emerging and ongoing professional development activities and promotes and supports various projects of the COE.

Office of Academic Advising

This office provides information about the College of Education degree requirements, advises all undergraduate and post-degree teacher certification students seeking initial teaching certificates, analyzes transcripts, performs student audits prior to admission to Pre-Service Internship I and the Alternative Certification Program (ACP) and prepares students' degree and certification plans. The office also advises prospective graduate students in the various COE plans and assigns them faculty advisers.

Office of Educator Certification

Questions about state educator certification policies and regulations should be directed to this office. It maintains all official certification records for the College of Education. This office also approves applications for admission to the Teacher Education Program (TEP); audits for the Master's Comprehensive examination and graduation; recommends students for educator certificates; and tracks data for Title II and the Accountability Standards for Educator Preparation (TEA Accreditation).

Office of State Assessments

The Office of State Assessments advises and disseminates information to students about the state teacher certification exams, which are called Texas Examinations of Educator Standards (TExES). Candidates must pass their required TExES in order to become public school educators in the state of Texas. The Office of State Assessments gives test approval to eligible students and keeps a record of students' exam scores. It distributes literature pertaining to state assessments, such as registration instructions, practice test information and notification of any changes or updates from the Texas Education Agency (TEA) regarding the TExES. This office offers opportunities for UHCL students and alumni to take practice tests to help prepare them for their actual exam(s). The College of Education State Assessments Coordinator networks with UHCL faculty and staff, as well as with the Educational Testing Service (ETS), Pearson, and TEA, in order to maintain accurate testing procedures and requirements.

Research Center for Language and Culture

This center supports initiatives in the research and development of educational programs for students working with second language learners and their families. Funded projects have included teacher training, bilingual counselor training and bilingual administrator training.

Learning Resources Review Center

This center is jointly sponsored by the Alfred R. Neumann Library and the College of Education and houses current children's books furnished by the generosity of publishers and producers of books and materials. The primary function of the center is to encourage review activities.

Certification

Alternative Certification Program (ACP)

The University of Houston-Clear Lake College of Education Alternative Certification Program (ACP), in cooperation with UHCL member school districts, is a training program that provides the opportunity for initial teacher certification students who have earned bachelor's degrees to be employed as full-time teachers while they complete their certifications. The length of the program may be from one to three years depending on students' qualifications. According to the USDE and NCLB, each school district must ensure that all teachers who teach core academic subjects funded by Title I funds are "highly qualified." Uncertified educators are able to meet this "highly qualified" definition by:

- Holding a bachelor's degree or higher from an approved institution.
- Being admitted to a State Board for Educator Certification (SBEC) approved ACP.
- Passing the state assessments required for the certification area being sought.

Admission Requirements for Alternative Certification Program (ACP)

Students must have the following:

- Bachelor's degree or higher from an approved accredited institution. Must be conferred by May for fall entry and August for spring entry into the program.
- All required state assessments must be passed.
- Admitted to UHCL as a post-baccalaureate teacher certification or graduate teacher certification student.
- Complete 150 clock hours of training at UHCL towards the certificate, prior to ACP admission.
- Admission to TEP is required before accepting a position with a school district.
- Thirty documented clock hours of K-12 experience observation.
- 2.750 GPA, overall or in the last 60 hours of coursework may be accepted (includes all coursework in the semester of the 60th hour).
- Application must be submitted to the office of the Center for the Professional Development of Teachers (CPDT) by the deadline posted on the ACP application. The deadline is January 1 for the spring semester and August 1 for the fall semester.
- \$60 application fee.

The teaching position must be with one of the UHCL CPDT Teacher Center Board member districts listed below:

- Alvin
- Angleton
- Brazosport
- Channelview

- Clear Creek
- Columbia-Brazoria
- Dayton
- Deer Park
- Dickinson
- Galena Park
- Galveston
- Goose Creek
- Hitchcock
- Houston
- La Porte
- Pasadena
- Santa Fe
- Texas City

Qualified Alternative Certification Program (ACP) Students

Upon acceptance, qualified students will complete the following steps:

- Apply for probationary or intern certificate at <http://tea.texas.gov/>.
- Pay a non-refundable fee of \$3,000 (subject to change) which will be deducted from each ACP student's annual salary by the school district or invoiced through CPDT. Students will pay additional fees if a second and/or third year is necessary.
- Complete all requirements listed on certification plan.

General Certification Information

In accordance with the rules of the State Board of Education, students applying for a teaching certificate in the State of Texas must meet the requirements for a bachelor's degree with an academic major (other than education) or an interdisciplinary academic major. The major must be related to the public school curriculum as defined by Chapter 74 of the Texas Administrative Code.

Students seeking a certification recommendation must have at least a 3.000 overall GPA in Pedagogy coursework and at least a 2.500 overall GPA in the content area for which the recommendation is sought. Grades of "C-" or better are necessary for all UHCL course requirements. Pre-Service Internship I requires a grade of "B-" or better.

A State Board for Educator Certification (SBEC) rule (Title 19, Part 7, Chapter 249) gives the board the authority to suspend or revoke a teaching certificate or refuse to issue a teaching certificate to a person who has been convicted of a felony or misdemeanor which directly relates to the duties and responsibilities of the teaching profession. For additional actions that may be taken by the board, see Rule 249.

SBEC and TEA require all educator preparation students, faculty, staff, field supervisors and advisory committee (TCC) members to be trained in and adhere to the Texas Educators' Code of Ethics. See Texas Administrative Code, Title 19, Part 7, Chapter 228.50. Training may be provided online or in a classroom setting. Candidates will receive training prior to student teaching, internship or practicum.

State Assessments Information

The Texas Education Agency (TEA) has developed comprehensive exams called Texas Examinations of Educator Standards (TExES) to ensure that each educator has the content and professional knowledge necessary for an entry-level position in Texas public schools. All initial certification students must pass a pedagogy exam and at least one content exam, depending on their certification area. To determine which state assessments are required for a certificate, candidates should check their degree or certification plan.

Initial certification students at UHCL will be eligible to register to take the first attempt of their state assessments on any of the test administration dates under the following conditions:

- Must have an approved and signed degree or certification plan on file in the COE that matches the state assessments for which they are registering.
- Must be formally admitted to the Teacher Education Program (TEP).
- Must earn credit (CR) in TCED 4100 or TCED 4102 by fulfilling all requirements of that course.
- Must fulfill eligibility requirements for taking practice exams (consult the COE website and/or the state assessments office for details).
- Must pass a practice test for each required exam.

Students who meet the above conditions may register for the state assessments by completing the following steps:

1. Set up a TEA account at <http://tea.texas.gov>. Note: This account will need to be updated, as needed, throughout the candidate's educator career.
2. Make a note of the TEA ID number from the TEA account.
3. Log onto the Pearson website at <https://www.tx.nesinc.com/> and set up a New User account. Students should use the exact personal information for this account as in their TEA account. Follow directions for registering for an exam using the TEA ID number retrieved from the TEA account. All test registrations are to be done online, unless the test taker has no way of paying the test fees electronically, in which case registration may be done by telephone at 1-800-877-4599.

Texas Education Agency (TEA)

For additional information on State certification, contact the Texas Education Agency (TEA) through its web site at <http://tea.texas.gov>, or its Information and Support Center number at 1-512-936-8400. Any changes made by the State and University of Houston-Clear Lake (UHCL) in interpreting the rulings on

educator certification plans in Texas may supersede the requirements of existing certification plans, degree plans, or alternative certification plans.

Applying for Certification

All students completing requirements for certificates must apply for certification and pay the required fee at the "Educator Certification Online System" by logging into their TEAL login accounts. Verification of certification will automatically be issued to an educator electronically by the Texas Education Agency (TEA) as soon as all requirements have been completed.

Per TEA, a certification candidate cannot be recommended for certification by an Educator Preparation Program unless both the field supervisor and cooperating teacher (site supervisor for advanced certificates) agree that the candidate should be recommended for certification. The clinical teaching experience, internship, or practicum may have to be repeated to ensure this success.

Complaint Resolution Procedures

For issues or complaints, contact the College of Education Office of Academic Advising by email, education@uhcl.edu, or phone, 281-283-3600. If the issue is not resolved, contact the College of Education, Office of the Associate Dean.

For further issues or complaints about this educator preparation program, see the UHCL COE "Complaint Procedures" under General Information, at www.uhcl.edu/education/student-resources.

For steps to follow in contacting the Texas Education Agency with a complaint about this EPP, see http://tea.texas.gov/About_TE/Contact_Us/complaints/complaints/.

Plans with Teacher Certification

The College of Education has been designated by the State Board for Educator Certification (SBEC) as a Center for Professional Development of Teachers (CPDT). The CPDT provides, in collaboration with area school districts, teacher preparation and professional development in partnership schools and promotes integration of technology in public school instruction.

The undergraduate plan in Interdisciplinary Studies leads to the Bachelor of Science degree. Students wishing to pursue this degree may choose one of the following:

- Core Subjects EC-6 (Early Childhood Concentration)
- Core Subjects EC-6 (Reading Concentration)
- Core Subjects EC-6 with Bilingual Supplemental
- Core Subjects EC-6 with EC-12 Special Education
- Core Subjects EC-6 with ESL Supplemental

- Core Subjects 4-8
- Core Subjects with ESL Supplemental 4-8
- Science 4-8
- Social Studies 4-8

Undergraduate students seeking either 4-8, 7-12, or EC-12 certification in conjunction with an academic degree in another UHCL college (the College of Human Sciences and Humanities [HSH] or the College of Science and Engineering [CSE]) must seek their degree plans in the appropriate college.

The staff in the COE Office of Academic Advising advises all students seeking the bachelor's degree in Interdisciplinary Studies, initial certification, supplemental certificates, professional certificates and UHCL certificates. Teacher education students pursuing bachelor's degrees in other colleges also must be advised about certification plan requirements by the COE Office of Academic Advising. These students should also contact the academic advisers in the colleges in which they are pursuing degrees.

Plans without Teacher Certification

In addition to undergraduate programs that include teacher certification preparation, the College of Education also offers the following undergraduate degrees that do not include teacher certification:

1. [Addictions Counseling B.S.](#)
2. [Early Childhood Care and Education B.S.](#)
3. [Interdisciplinary Studies B.A.S. with a Major in Early Childhood Education-Educator of Young Children](#)

The staff of the COE Office of Academic Advising advises all students seeking the bachelor's degrees listed above.

Admission to the Teacher Education Program (TEP)

In order to enroll in pedagogy coursework, students must be formally admitted to the Teacher Education Program (TEP) see "[Teacher Education Program Application](#)". Admission to the TEP is contingent on the following:

- Meeting Basic Skills in Reading, Mathematics and Writing by completing one of the following:
- SAT - (within 5 years) Prior to 03/01/16: Cumulative score verbal/math 1070 minimum, verbal: 500 minimum, and math: 500 minimum. After 02/29/16: Evidence-based reading /writing: 480 minimum, and math : 530 minimum.
- Baccalaureate degree - or higher awarded by a regionally accredited U.S. institution of higher education.

- Core Complete – completed the requirements of the Texas General Education Core Curriculum.
- ACT college readiness scores – (within 5 years) Composite score: 23 minimum, English: 19 minimum, math: 19 minimum.
- STAAR End of Course exams – (within 3 years) English III reading score (Level II 2000 minimum), English III writing score (Level II 2000 minimum), Algebra II score (Level II 4000 minimum).
- TSI Assessment – Math ≥ 350 ; reading ≥ 351 ; writing ≥ 5 or 4 with a 363 on multiple choice.
- Achieving a grade of "C-" or better in EDUC 4310, SILC 4315 and INST 3313; and completing TCED 4100/4102 with a "CR" credit, if an undergraduate.
- Completion of a college-level public speaking course with a grade of "C-" or better or submitting a Speech Competency form.
- Achieving a GPA ≥ 2.750 overall or in the last 60 semester credit hours.
- Completion of at least 60 hours of courses from the degree plan.
- Completion of a minimum of 12 semester credit hours (15 semester credit hours if pursuing mathematics or science) in the subject-specific content area for the certificate being pursued.
- Submitting a one-page paper describing personal characteristics and previous experiences to be evaluated for certificate appropriateness.
- Reading and understanding the handout, "[7 Things to Know Before Becoming an Educator](#)"
- Pay the TEA \$37 [Admission Fee](#)
- For post-baccalaureate students educator candidates educated in countries where English is not the native language, demonstrating English proficiency by taking all four parts of the TOEFL-iBT with scores of 24 on the speaking portion, 22 on listening, 22 on reading, and 21 on writing. Transcripts must be evaluated course-by-course by a TEA approved foreign credential service, if post-baccalaureate.
- Confirming in writing that the student is aware that a person who has been convicted of an offense or received deferred adjudication may be ineligible for certification; and that the student has read the state rules on criminal background checks. Complete the Educator's Code of Ethics Training and turn in a copy of the certificate of completion.
- Submitting the TEP application with all required documents to the Office of Educator Certification in B-1231. The application is available online at the UHCL website in the COE Forms and Info section.
- Receive formal approval of the application for admission and accept admission to the program.

Undergraduates must successfully complete the course, TCED 4100/4102, prior to TEP admission. Prior to admission to the TEP, the student will establish an initial profile with the TEA.

The final authority for admission and retention in the TEP resides with the Dean of the COE.

Certification-seeking candidates who withdraw from the UHCL certification program or are discontinued by the university as certification-seeking and wish to re-enter, must reapply to the university and to the COE certification program. Teacher certification candidates who were formerly admitted to TEP and

want to re-enter it must reapply to TEP, meet all and any new admission requirements and pay the TEA Admission fee again per TEA.

Conditional Admission to the TEP

Students enrolled in and attending one or more of the prerequisite courses and/or one or more courses needed to complete the core curriculum may be granted conditional admission to the TEP, contingent upon successful completion of said enrolled course(s).

Admission to Pre-Service Internships I and II For Degree Seeking Students

TCED 4378, Pre-Service Internship I and TCED 4978, Pre-Service Internship II/Clinical Teaching are the capstone experiences for UHCL-approved Teacher Education Program (TEP). Students must enroll in consecutive long semesters (fall/spring or spring/fall) to complete these two experiences. The rules governing TCED 4378 and TCED 4978 are identical. Pre-Service Internship I is every Wednesday of the public school semester. Pre-Service Internship II/Clinical Teaching is every day of the public school semester. Enrollment in Pre-Service Internship I should not be considered until almost all content and basic certification courses have been successfully completed since the number of semester hours in the Pre-Service Internship I teaching semester is restricted to 12. Specific requirements for Pre-Service Internships I and II/Clinical Teaching are listed below.

Students must apply for Pre-Service Internship I through the COE Advising office. Applications for Pre-Service Internship I must be received by March 1 for fall internship and by October 1 for spring internship. Pre-Service Internships I and II/Clinical Teaching are not offered in the summer. Students complete the Internship I application found here <https://www.uhcl.edu/education/student-resources/>

Current Internship I candidates do not need to apply for Internship II/Clinical Teaching II. The COE Advising Office will automatically conduct an audit of all Internship I candidates' academic records at the end of each semester to determine candidates' eligibility for Internship II/Clinical Teaching.

Pedagogy coursework must be taken prior to or concurrently with Pre-Service Internship I. The Office of Academic Advising will perform audits to establish students' eligibility for these experiences. Audits are work copies only.

Pre-Service Internship I (TCED 4378)

All students must meet the following requirements for admission to Pre-Service Internship I:

- Formal admission to the Teacher Education Program (TEP) (see above).
- Field experience courses must be satisfactorily completed prior to or taken concurrently with Pre-Service Internship I. Students are not allowed to take more than two courses which include field experience concurrently with Internship I.

- Any Wednesday courses taken concurrently with Pre-Service Internship I cannot be scheduled earlier than 7:00 p.m.
- For those certifications requiring TCED 4323 or 4333, successful completion of MATH 1351 is a prerequisite. See catalog for prerequisites for all pedagogy courses.
- TCED 4100/4102 must be taken prior to consideration for Internship I (TCED 4378) unless all required state assessments have been passed.
- Applications for Pre-Service Internship I must be received in the COE Advising office before the close of business on March 1 for fall internship and by October 1 for spring internship. If the application deadline falls on a weekend or a university holiday, applications will be accepted before the close of business on the following working day.
- Upon acceptance into TCED 4378, students will be placed on the district's substitute list. As required by Texas Senate Bill 9, the district will conduct a criminal background check on each student. In order for the criminal background check to be conducted, each student will be required to complete all required documentation. Part of the documentation will require that each student provide his/her social security number and his/her driver's license number. If a student does not have a driver's license number, the state identification number must be provided.

Admission to Pre-Service Internship I is contingent upon eligibility for entering Pre-Service Internship II/Clinical teaching the following consecutive long semester. In the event that the student has not passed the required state certification exams prior to the following consecutive long semester, the student will enter Internship II/Clinical teaching the following semester after the required state certification exams have been passed. Students will be informed of their public school internship assignments before Pre-Service Internship I begins.

Intern I participants must pass all Texas Examinations of Educator Standards (TExES) to be eligible for Internship II/Clinical teaching. Scores must be submitted and students registered for Internship II/Clinical teaching prior to the close of late registration in fall and/or spring semesters.

Pre-Service Internship II/Clinical Teaching (TCED 4978)

Students must meet the following requirements for admission to Pre-Service Internship II/Clinical Teaching:

- All Texas Examinations of Educator Standards (TExES) exams must be passed to be eligible for Internship II/Clinical Teaching. Scores must be submitted and students registered for Internship II/Clinical Teaching prior to the close of late registration in fall and/or spring semesters.
- Successful completion of Pre-Service Internship I with a grade of "B-" or better.
- Successful completion of all field experiences courses.
- It is strongly recommended that Internship II/Clinical Teaching be taken alone in the final semester. No more than six additional semester hours may be taken during Pre-Service Internship II/Clinical Teaching (TCED 4978). These additional courses must meet no earlier than 7 p.m., as they may

interfere with Internship II/Clinical Teaching course requirements. See adviser for acceptable coursework.

Students denied admission to Pre-Service Internships I or Internship II/Clinical Teaching may reapply but must do so by stated deadlines for subsequent semesters.

UHCL Program for Education Aides (Paraprofessionals)

The Texas Administrative Code 228.32 (k) states that candidates employed as certified educational aides may satisfy their clinical teaching assignment requirements through their instructional duties.

UHCL College of Education Requirements for Participation in the Paraprofessionl Program

- Must have at least one year of experience as an instructional paraprofessional (aide).
- Must hold an Educational Aide Certificate issued by SBEC.
- Current job assignment must be in the certification area being sought.
- Principal approved needed to participate in Internship I (Wednesday only) and Internship II/Clinical Teaching (Monday-Friday) while completing paraprofessional campus duties.

The academic plans are individualized for each student as well as each paraprofessional's Internship I and Internship II/Clinical Teaching experience.

Post-Degree Teacher Certification Plans

Students seeking initial teacher certification and who hold at least a bachelor's degree from an accredited university can choose from two sets of programs. Students wishing to combine their pursuit of initial teacher certification with the pursuit of a master's degree can follow a graduate teacher certification program (see the UHCL [Graduate Catalog](#)). Students who do not wish to pursue a master's degree can follow a post-baccalaureate teacher certification program. Students pursuing a second bachelor's degree are also considered to be post-baccalaureate students.

Although it is not necessary for students holding at least a bachelor's degree and seeking initial teacher certification to pursue a second bachelor's degree, those who wish to do so must meet the university's lower-level requirements in addition to the requirements for both teacher certification and the second degree unless such requirements were met through the completion of the first bachelor's degree. These lower-level requirements are described in the Core section of the catalog.

Post-Baccalaureate Teacher Certification Plans

To be eligible for admission to a post-baccalaureate teacher certification plan, students must hold a bachelor's degree from an accredited university and meet the university admissions requirements for post-baccalaureate students. Post-baccalaureate students are considered undergraduate students; therefore, they must maintain undergraduate academic standards and pay undergraduate tuition and fees. Post-baccalaureate teacher certification students are not eligible to enroll in graduate courses, and coursework taken toward earning initial teacher certification may not be applied to a master's degree.

Post-Baccalaureate Teacher Certification Testing Options

Per the Texas Education Agency (TEA), all individuals are required to pass the appropriate teacher certification exams prior to entering a classroom as a teacher. UHCL provides two testing options for post-baccalaureate teacher certification students.

Option 1: Take the content certification state assessments as Pre-Admission Content Tests (PACT) before admission to the Teacher Education Program (TEP).

- All content certification PACTs must be passed prior to or during the first semester at UHCL.
- Students are not permitted to fulfill any test preparation requirements prior to taking the PACT state assessments.
- Students are not permitted to participate in any UHCL-sponsored test preparation workshops prior to being admitted to the TEP.
- During the first semester, students must enroll in EDUC 4310, INST 3313 and SILC 4315 and apply to the TEP after passing all content state assessments as PACTs. (The Texas Education Agency (TEA) does not allow post-degree teacher certification students to take additional course prior to being admitted to the TEP.)
- After admission to the TEP, students can continue to take required coursework.
- For students seeking a 4-8 or 7-12 certification, all content area coursework will be waived. (No coursework will be waived for students seeking an EC-6 certification.)
- Students must meet all current UHCL COE state assessment requirements prior to attempting the Pedagogy and Professional Responsibility state assessment.

Option 2: Take all state assessments after admission to the TEP.

- During the first semester, students must enroll in EDUC 4310, INST 3313 and SILC 4315 and apply to the TEP. (The TEA does not allow post-degree teacher certification students to take additional courses prior to being admitted to the TEP.)
- After admission to the TEP, students can continue to take required coursework.
- Students must meet all current UHCL COE state assessment requirements prior to attempting any state assessment.

- No content coursework will be waived. Students must complete all required coursework.

Graduate Teacher Certification Plans

To be eligible for admission to a graduate teacher certification plan, students must hold a bachelor's degree from an accredited university and also be pursuing a master's degree. Students must meet the graduate admissions requirements for both the university and the College of Education. These requirements are described in the [graduate catalog](#).

Graduate teacher certification students are considered graduate students; therefore, they must maintain graduate academic standards and pay graduate tuition rates. Some courses listed on the graduate teacher certification plans can also be applied to the pursuit of a master's degree.

Department of Counseling, Special Education, and Diversity

Our focus in the Department of Counseling, Special Education, and Diversity is preparing teachers and school counselors who can address the developmental needs of all learners. Graduates of University of Houston-Clear Lake's Department of Counseling, Special Education, and Diversity are uniquely trained to become transformative leaders who work with students with diverse needs so that students can attain their full academic potential. To this end, we offer undergraduate and masters degrees that encompass these programs. UHCL is one of 150 educator preparation programs in Texas that are accredited to recommend educators for certificates.

Undergraduate Degrees

- [Addictions Counseling B.S.](#)
- [Interdisciplinary Studies B.S. with Core Subjects EC-6 and Bilingual Supplemental Certification](#)
- [Interdisciplinary Studies B.S. with Core Subjects EC-6 and ESL Supplemental Certification](#)
- [Interdisciplinary Studies B.S. with Core Subjects EC-6 and Special Education EC-12 Certification](#)
- [Interdisciplinary Studies B.S. with Core Subjects 4-8 and ESL Supplemental Certification](#)

Teacher Certification

- [Post-Baccalaureate Teacher Certification Plan Core Subjects EC-6 with Bilingual Supplemental](#)
- [Post-Baccalaureate Teacher Certification Plan Core Subjects EC-6 ESL Supplemental](#)
- [Post-Baccalaureate Teacher Certification Plan Core Subjects EC-6 Special Education EC-12](#)

Minors

- [Minor in Special Education](#)

- [Minor in Addictions Counseling](#)

Department of Curriculum and Instruction

Follow your dream to become the best teacher possible by choosing a degree program in University of Houston–Clear Lake's Department of Curriculum and Instruction. We offer undergraduate, graduate and doctoral degrees that focus on the preparation and development of dedicated teachers and teacher leaders who will work with children from birth through elementary, middle and secondary school and beyond. Our focus is on preparing classroom teachers and other professionals who will work in positions that serve children and youth to understand and utilize the most effective and current teaching tools available to assist students in achieving academic success.

Undergraduate Degrees

- [Interdisciplinary Studies B.A.S. with a major in Early Childhood Education – Educator of Young Children](#)
- [Early Childhood Care and Education B.S.](#)
- [Interdisciplinary Studies B.S. with Core Subjects EC–6 Certification \(Early Childhood Concentration\)](#)
- [Interdisciplinary Studies B.S. with Core Subjects 4–8 Certification](#)
- [Interdisciplinary Studies B.S. with Science 4–8 Certification](#)
- [Interdisciplinary Studies B.S. with Social Studies 4–8 Certification](#)

Programs Shared with HSH and CSE

- [History B.A. with History 7–12 Certification](#)
- [History B.A. with Social Studies 7–12 Certification](#)
- [Geography B.S. with Social Studies 7–12 Certification](#)
- [Art and Design B.F.A. with Grades EC–12 Art Certification](#)
- [Fitness and Human Performance B.S. with Grades EC–12 Physical Education Certification](#)
- [Biological Sciences B.A. with Life Sciences 7–12 Certification](#)
- [Mathematics B.A. with Mathematics 4–8 Certification](#)
- [Mathematical Science B.A. with Mathematics 7–12 Certification](#)
- [Mathematical Science B.S. with Mathematics 7–12 Certification](#)

Teacher Certification

- [Post-Baccalaureate Teacher Certification Plan Core Subjects EC–6 \(Early Childhood Concentration\)](#)
- [Post-Baccalaureate Teacher Certification Plan Core Subjects 4–8](#)
- [Post-Baccalaureate Teacher Certification Plan Mathematics 4–8](#)
- [Post-Baccalaureate Teacher Certification Plan Science 4–8](#)
- [Post-Baccalaureate Teacher Certification Plan Social Studies 4–8](#)

- [Post-Baccalaureate Teacher Certification Plan History 7-12](#)
- [Post-Baccalaureate Teacher Certification Plan Life Sciences 7-12](#)
- [Post-Baccalaureate Teacher Certification Plan Mathematics 7-12](#)
- [Post-Baccalaureate Teacher Certification Plan Social Studies 7-12](#)

Minors

- [Minor in Early Childhood Education](#)
- [Minor in Teacher Education](#)
- [Minors in Instructional Practices](#)

Certificates

- [Early Childhood Education Leadership](#)

Department of Educational Leadership and Policy Analysis

Demonstrate your commitment to professional and personal development by furthering your own education. University of Houston–Clear Lake's Department of Educational Leadership and Policy Analysis is committed to preparing candidates to become inspired leaders who create and foster positive change in the educational environment of schools, associated organizations, institutions and agencies.

Department of Literacy, Library, and Learning Technologies

The mission of the Department of Literacy, Library Science, and Learning Technologies in University of Houston–Clear Lake's College of Education is to provide candidates with the knowledge and experience to build a solid foundation in the literacy skills of reading, writing, listening, speaking, viewing, and visually representing. Addressing the diverse literacies that exist in today's technology driven global society, these programs prepare candidates to embrace the ever-expanding spectrum which constitutes the world in which all learners will be confronted.

Undergraduate Degrees

- [Interdisciplinary Studies B.S. with Core Subjects EC-6 Certification \(Reading Concentration\)](#)

Programs Shared with HSH and CSE

- [Literature B.A. with English Language Arts and Reading 4-8 Certification](#)
- [Literature B.A. with English Language Arts and Reading 7-12 Certification](#)

Teacher Certification

- [Post-Baccalaureate Teacher Certification Plan English Language Arts and Reading 4-8](#)
- [Post-Baccalaureate Teacher Certification Plan English Language Arts, Reading and Social Studies 4-8](#)
- [Post-Baccalaureate Teacher Certification Plan English Language Arts and Reading 7-12](#)

Minors

- [Minor in Instructional Technology](#)

College of Human Sciences and Humanities

The College of Human Sciences and Humanities (HSH) is dedicated to the study of people and significant issues about the human experience. HSH fosters the liberal arts and encourages practical preparation for occupations. HSH is organized into five departments, each of which is home to individual programs; in addition, HSH offers a number of minors and certificates.

Accreditations and Approvals

The College of Human Sciences and Humanities has several accredited programs. The Behavioral Analysis program is accredited by the Association for Behavioral Analysis International. The Family Therapy program is accredited by the Commission on Accreditation for Marriage and Family Therapy Education. The Human Factors Certificate and the Human Factors concentration in the M.S. Psychology program are both accredited by the Human Factors and Ergonomics Society. The Registered Nurse to Bachelor of Science in Nursing program is accredited by the Accreditation Commission for Education in Nursing. The School Psychology program is approved by and has received National Recognition from the National Association of School Psychologists. The Bachelor of Social Work is accredited by the Council on Social Work Education. The Doctor of Psychology in Health Service Psychology has been awarded accreditation on contingency by the American Psychological Association. In addition, the National Strength and Conditioning Association has recognized the Fitness and Human Performance curriculum as preparing students for successful entrance into the career field.

Departments and Programs of Study

The departments comprising HSH include Clinical, Health, and Applied Sciences; Communication and Studio Arts; Liberal Arts; Psychology; and Social and Cultural Sciences. Each is home to a variety of programs representing the areas of academic study indicated below.

- Department of Clinical, Health, and Applied Sciences
 - Fitness and Human Performance B.S.
 - Fitness and Human Performance B.S. with Grades EC-12 Physical Education Certification
 - Registered Nurse to Bachelor of Science in Nursing B.S.N.
 - Social Work B.S.W.
- Department of Communication and Studio Arts
 - Art and Design B.F.A. with Graphic Design Concentration
 - Art and Design B.F.A. with Studio Art Concentration
 - Art and Design B.F.A. with Grades EC-12 Art Certification
 - Communication B.A.
- Department of Liberal Arts
 - History B.A.
 - History B.A. with 7-12 History Certification
 - History B.A. with 7-12 Social Studies Certification
 - Humanities B.A.
 - Literature B.A.
 - Literature B.A. with 4-8 English Language Arts and Reading Certification
 - Literature B.A. with 7-12 English Language Arts and Reading Certification
- Department of Psychology
 - General Psychology B.S.
- Department of Social and Cultural Sciences
 - Anthropology B.S.
 - Behavioral Sciences - General B.S.
 - Criminal Justice and Criminology B.S.
 - Geography B.S.
 - Geography B.S. with 7-12 Social Studies Certification
 - Public Service Leadership B.S.
 - Sociology B.S.

Certificates

In addition to study in programs leading to major degrees, HSH also offers a number of program-related certificates, including the following:

- Applied Behavior Analysis
- Public Service Leadership
- Women's and Gender Studies

Minors

HSH offers disciplinary and interdisciplinary minors. These are listed in various department sections throughout the following pages. Students who wish to select a minor should do so in consultation with their academic advisers and in accordance with the UHCL policy specified in the General Program Requirements section of the catalog. Note that individual minors may have requirements in addition to those articulated in the UHCL policy. Some majors have duplicated minors as concentrations (subplans) which program majors may complete, although not for minor designation. Below is a complete list of HSH minors; interdisciplinary minors are marked with an asterisk:

- [Minor in Africana Studies*](#)
- [Minor in Anthropology](#)
- [Minor in Art History](#)
- [Minor in Behavior Analysis](#)
- [Minor in Communication](#)
- [Minor in Exercise Science](#)
- [Minor in Geographic Information System GIS](#)
- [Minor in Geography](#)
- [Minor in Graphic Design](#)
- [Minor in Health Promotion](#)
- [Minor in History](#)
- [Minor in Humanities](#)
- [Minor in Latinx and Latin American Studies*](#)
- [Minor in Law and Society*](#)
- [Minor in Literature](#)
- [Minor in Middle Eastern Studies*](#)
- [Minor in Museum Studies*](#)
- [Minor in Philosophy](#)
- [Minor in Professional Writing](#)
- [Minor in Psychology](#)
- [Minor in Public Service Leadership](#)
- [Minor in Social Work](#)
- [Minor in Sociology](#)
- [Minor in Studio Art](#)
- [Minor in Video Production](#)
- [Minor in Women's and Gender Studies*](#)
- [Minor in Youth and Police Studies](#)

Contact Us

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Phone: 281-283-3300

Email: hsh@uhcl.edu

Web: www.uhcl.edu/human-sciences-humanities

Bayou Building 1529

Office of Academic Advising

Phone: 281-283-3333

Email: hshadvising@uhcl.edu

Web: www.uhcl.edu/human-sciences-humanities/advising/

Bayou Building 1615

Texas Department of Corrections Academic for Offenders program

Phone: 281-283-3420

Email: hsh@uhcl.edu

Web: www.uhcl.edu/human-sciences-humanities

Bayou Building 1617

Admission into an HSH Degree Plan

Records for degree-seeking undergraduate students are processed by the Office of Admissions and forwarded to the dean's office for adviser assignment and completion of the degree plan.

Most of the college's degrees are 120 credit-hour programs. Exceptions to this 120-hour rule include the education certification programs: the Bachelor of Fine Arts in Art and Design with EC-12 Art Certification (127 hours), the Bachelor of Science in Fitness and Human Performance with EC-12 Physical Education Certification (130 hours), the Bachelor of Science in Geography with 7-12 Social Studies Certification (127 hours), the Bachelor of Arts in History with 7-12 History Certification (127 hours), the Bachelor of Arts in History with 7-12 Social Studies Certification (127 hours), the Bachelor of Arts in Literature with 4-8 English Language Arts and Reading Certification (136 hours), and the Bachelor of Arts in Literature with 7-12 English Language Arts and Reading Certification (127 hours).

Students who arrive with fewer than 60 credit hours will be required to take additional courses at UHCL to complete program requirements.

Requirements for each HSH degree plan are detailed in the following pages.

Academic advising is a key component of students' success. Students who plan to transfer to UHCL should meet with an HSH adviser prior to the first semester. Students who enter with 0-60 hours should meet with a university adviser prior to the first semester. This will help to ensure that students will complete their plans of study in the number of hours of coursework indicated in the following pages.

Once accepted at UHCL, students must receive academic advising prior to enrolling in courses; otherwise, students take more credit hours than necessary to complete their degrees.

Information on HSH degree plans and advising schedules may be obtained from the [HSH Office of Advising](#).

International Admissions

For international students, dual admission is required. Degree-granting programs review and admit or deny students to a program based on a student's academic preparation. UHCL's Office of International Admissions and Programs reviews and admits or denies students to the university based on legal aspects specific to international students. Admission must be approved by both the academic program and the Office of International Admissions and Programs for a student to enter the university.

Writing Proficiency Requirement

All degree-seeking undergraduate students enrolled in the College of Human Sciences and Humanities are required to demonstrate proficiency in written English. In most cases, this requirement is fulfilled by passing WRIT 3304, WRIT 3305, WRIT 3306, or WRIT 3307 with a grade of "C" or better unless otherwise stated (grades of "C-" or below are not acceptable). In exceptional cases, the recommendation of three full-time faculty members who teach WRIT 3307 will exempt students from this requirement. Note that students completing education certification plans must complete the 3000-level writing course with a grade of "C+" or better and that some other degree-granting programs at UHCL require higher grades in demonstration of writing proficiency.

HSH Upper-Level Courses

For undergraduate degree completion, programs in the College of Human Sciences and Humanities require a minimum of 30 hours of upper-level courses. Please see individual program descriptions for information about the required number of upper-level courses.

Diversity Requirement

Some programs in HSH require the completion of diversity courses. Diversity course options should be drawn from the list below unless otherwise specified in program-level curriculum. For Anthropology and General Behavioral Science majors, one course must carry the ANTH or SOCI rubric. For Sociology majors, one course must carry the SOCI rubric. Psychology majors should review the catalog section for the B.S. in Psychology to see a list of program-specific diversity course options. Please consult with program faculty regarding additional options for diversity courses.

- ANTH 3355
 - ANTH 3357
 - ANTH 3358
 - ANTH 4301
 - ANTH 4333
 - ANTH 4341
 - PSYC 4308
 - PSYC 4334
 - PSYC 4356
 - SOCI 3352
 - SOCI 4316
 - SOCI 4317
 - SOCI 4355
 - SWRK 3324
- For ANTH 4341, the following may be substituted SOCI 4341 or WGST 4341.
- For PSYC 4356, the following may be substituted: SOCI 4356.

Department of Clinical, Health, and Applied Sciences

The Department of Clinical, Health, and Applied Sciences (CHAS) educates students for careers that promote the mental, physical, and psychosocial health and well-being of individuals, families, and communities. Due to changing lifestyle and environmental factors that result in increased prevalence of disease and disability, there is a growing need to discover, develop, and disseminate evidence-based prevention, treatment, and rehabilitation programs for physical and mental impairments. Through research, teaching, and service, the faculty of CHAS are dedicated to meeting this growing societal need. Moreover, CHAS faculty members are committed to the academic preparation and professional mentorship of students who will become the community and family health leaders of the future generations.

CHAS offers undergraduate degrees in various areas of clinical and applied health sciences: a Bachelor of Science in Fitness and Human Performance degree, a Bachelor of Science in Fitness and Human Performance with grades EC-12 Physical Education degree, a Registered Nurse-Bachelor of Science in Nursing degree, and a Bachelor of Social Work degree.

Undergraduate Degrees

- [Fitness and Human Performance B.S.](#)
- [Fitness and Human Performance B.S. with Grades EC-12 Physical Education Certification](#)
- [Registered Nurse-Bachelor of Science Nursing B.S.N.](#)

- [Social Work B.S.W.](#)

Certificates

- [Applied Behavior Analysis](#)

Minors

- [Behavior Analysis](#)
- [Exercise Science](#)
- [Health Promotion](#)
- [Social Work](#)

Accreditations

The B.S.W. program is accredited through the Council of Social Work and Education (CSWE).

The Registered Nurse to Bachelor of Science in Nursing program is accredited by the Accreditation Commission for Education in Nursing. The Fitness and Human Performance program has been recognized by the National Strength and Conditioning Association (NSCA) for its curriculum and research areas in strength and conditioning.

Department of Communication and Studio Arts

The Department of Communication and Studio Arts (CASA) emphasizes creativity and critical thinking in communication and the arts. In state-of-the-art studios and computer laboratories under the supervision of professors who are nationally and internationally recognized in their fields, students prepare for careers such as studio art, professional writing, graphic design, and public relations. Classes are taught by published authors and award-winning artists in ceramics, painting, printmaking, sculpture, graphic design, and photography. The UHCL art faculty include recipients of multiple Fulbright awards. Art students routinely win awards for their work and are often accepted into MFA programs. Communication students often publish their work in the university's award-winning newspaper, gain professional experience through more than 100 internships in the Houston-Galveston area, and produce portfolios that demonstrate their mastery of written and visual communication suitable for media and corporate environments. The Writing program prepares students to write in their disciplines at the upper-division level. Writing program faculty offer courses in writing for the liberal arts, the human sciences, education, science, and the business and technical professions. In addition to critical thinking, these courses emphasize professional writing skills, analysis, research, and argumentation.

Undergraduate Degrees

- [Art and Design B.F.A. with Graphic Design Concentration](#)

- [Art and Design B.F.A with Studio Art Concentration](#)
- [Art and Design B.F.A. with Grades EC–12 Art Certification](#)
- [Communication B.A.](#)

Minors

- [Communication](#)
- [Graphic Design](#)
- [Professional Writing](#)
- [Studio Art](#)
- [Video Production](#)

Department of Liberal Arts

The Department of Liberal Arts (LA) houses the History, Humanities, and Literature programs. Faculty in the department strive to develop and enhance the analytical, communicative, and research skills of their students by exposing students to the customs, values, and behaviors of culturally diverse populations as expressed through the texts, arts, and artifacts of those populations.

Undergraduate Degrees

- [History B.A.](#)
- [History B.A. with Grades 7–12 Social Studies Certification](#)
- [Humanities B.A.](#)
- [Literature B.A.](#)
- [Literature B.A. with Grades 4–8 English Language Arts and Reading Certification](#)
- [Literature B.A. with Grades 7–12 English Language Arts and Reading Certification](#)

Minors

- [Art History](#)
- [History](#)
- [Humanities](#)
- [Law and Society](#)
- [Literature](#)
- [Philosophy](#)

Interdisciplinary Minors

- [Latinx and Latin American Studies](#)
- [Women's and Gender Studies](#)

- [Museum Studies](#)

Department of Psychology

The Department of Psychology is devoted to the scientific study of human behavior which includes the critical analyses of data and the potential for application in our communities. All aspects of the Psychology degree are guided by the suggested curricula of the American Psychological Association and developed by our faculty for optimum learning in classroom, laboratory, and applied settings. Faculty expertise and course requirements within the program include developmental psychology, social psychology, neuroscience, learning and cognition, human factors, and scientific methods. The psychology of diverse peoples and experiences is included in these areas. Undergraduate majors will gain a liberal arts orientation with a focus on psychology.

Undergraduate Degrees

- [Psychology B.S.](#)

Certificates

- [Women's and Gender Studies](#)

Minor

- [Behavior Analysis](#)
- [Psychology](#)

Department of Social and Cultural Sciences

The Department of Social and Cultural Sciences (SCS) provides students with critical thinking skills and analytical knowledge in order to understand the social contexts of their intellectual, artistic, and professional work. The faculty of our interdisciplinary department span the social sciences: Anthropology, Criminal Justice and Criminology, Cross-Cultural Studies, General Behavioral Sciences, Geography, Political Science, Public Service Leadership, and Sociology. The department's elective courses highlight interdisciplinary approaches and intellectual diversity, fostering critical investigation and curiosity. Students may choose from a variety of courses that examine the political, social, cultural, and geographical forces that shape life.

Undergraduate Degrees

- [Anthropology B.S.](#)

- Behavioral Sciences B.S.
- Criminal Justice and Criminology B.S.
- Geography B.S.
- Geography B.S. with Grades 7–12 Social Studies Certification
- Public Service Leadership B.S.
- Sociology B.S.

Certificates

- Public Service Leadership

Minors

- Anthropology
- Geography
- Geographic Information Systems (GIS)
- Public Service Leadership
- Sociology
- Youth and Police Studies

Interdisciplinary Minors

- Africana Studies
- Middle Eastern Studies

College of Science and Engineering

The College of Science and Engineering (CSE) offers high quality academic degrees consistent with the role of a regional public university. Plans within the college prepare graduates to enter fields in natural sciences, mathematics, computing and computer engineering. Individuals in the college's plans are expected to develop skills in problem solving, independent study and critical thinking, and to be able to adapt knowledge to new situations and to the benefit of society. Students in these plans attain a sense of professional values and ethics as well as knowledge and skills relevant to their specific subject area. This sense of professional responsibility is essential if society is to benefit from the interfaces with advanced technology and science.

The college supports research and development directed toward producing new knowledge and identifying additional applications of existing knowledge. Dissemination of scientific knowledge through publications and presentations is encouraged, as well as professional service to local, regional, national and international communities.

Accreditations and Approvals

Various programs in CSE are accredited by the following organizations: The undergraduate degree programs in Computer Science and Computer Information Systems are accredited by the Computer Accreditation Commission of ABET, <http://www.abet.org>. The undergraduate degree program in Computer Engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>. The Chemistry Program has complete accreditation from the American Chemical Society (ACS). The undergraduate Occupational Safety and Health-Industrial Hygiene and Safety programs are accredited by the Applied and Natural Science Commission of ABET, <http://www.abet.org>. The collaborative UHCL-UTMB Bachelor of Science in Biology-Masters of Clinical Laboratory Sciences degree plan is approved by the Southern Association of Colleges and Schools.

Departments

The College of Science and Engineering has six departments. The faculty of each department aspires to a professional model that includes balance among the components of the CSE mission: teaching, research and service.

- [Department of Computing Sciences](#)
- [Department of Engineering](#)
- [Department of Physical and Applied Sciences](#)
- [Department of Biology and Biotechnology](#)
- [Department of Environmental Sciences](#)
- [Department of Mathematics and Statistics](#)

Contact Us

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Bayou Building 3611

Admission into a CSE Degree Plan

Following admission to the university, students' transcript evaluations are forwarded to the Office of Academic Advising. Students are notified of their admission status by the associate dean. Once accepted

to a degree plan, students will receive their degree plan from their academic adviser during their first semester of study. The CPS delineates specific requirements of a study area and must be completed during the semester of acceptance into a degree plan.

Requirements for Undergraduate Plans

Undergraduate students are required to satisfy the university undergraduate degree requirements described earlier in this catalog. Students pursuing bachelor's degrees must complete a minimum of 120 semester hours.

Courses noted on the CPS as academic core courses must be completed with a grade of "C-" or better. Some plans may require a grade of "C" or better in courses taken in the academic core.

Department of Biology and Biotechnology

Students desiring to study in the biology and biotechnology department may choose from the undergraduate plans below. Applicants should consult the chair of the department for additional information.

Undergraduate Degrees

- [Biological Science B.A.](#)
- [Biological Science B.A. with Life Sciences 7-12 Certification](#)
- [Biological Science B.S.](#)
- [Biology Scholars Plan - Linked B.S.-M.S. Degree Plans in Biology](#)
- [Biological Sciences B.S.-M.S. Clinical Laboratory Sciences](#)

Certificates

- [Biotechnology](#)

Minors

- [Biology](#)

Department of Computing Sciences

Students desiring to study in the computing sciences may choose any one of the undergraduate plans below. Applicants should consult the chair of the division for additional information.

Undergraduate Degrees

- [Computer Science B.S.](#)
- [Computer Science Scholars Plan-Linked B.S.-M.S. Degree plans in Computer Science](#)
- [Information Technology B.S.](#)
- [Information Technology B.A.S.](#)
- [Computer Information Systems B.S.](#)

Minors

- [Cybersecurity](#)

Accreditations

The undergraduate degree programs in Computer Science and Computer Information Systems are accredited by the Computer Accreditation Commission of ABET, www.abet.org

Department of Engineering

Students desiring to study in the engineering department may choose from the undergraduate plans below. Applicants should consult the chair of the department for additional information.

Undergraduate Degrees

- [Computer Engineering B.S.](#)
- [Mechanical Engineering B.S.](#)
- [Pre-Engineering \(Transfer track\)](#)

Minors

- [Software Engineering](#)

Accreditations

The Computer Engineering program at University of Houston-Clear Lake is accredited by the Engineering Accreditation Commission of ABET, www.abet.org

Department of Environmental Science

Students desiring to study in the environmental science department may choose from the undergraduate plans below. Applicants should consult the chair of the department for additional information.

Undergraduate Degrees

- [Environmental Science B.S.](#)
- [Environmental Science Scholars Plan-Linked B.S.-M.S. Degree Plans in Environmental Science](#)

Minors

- [Environmental Science](#)
- [GIS/Geospatial Technologies](#)
- [Geology](#)

Department of Mathematics and Statistics

Students desiring to study in the mathematics and statistics department may choose from the undergraduate plans below. Applicants should consult the chair of the division for additional information.

UHCL Mathematics and Department Placement and Testing Policy

All students enrolling in MATH 2412 (Pre-Calculus or any other course requiring College Algebra as a prerequisite), MATH 2413 (Calculus I) or MATH 2414 (Calculus II) need at the date of registration:

- An acceptable score on the UHCL Mathematics Placement Exam or
- Evidence of successful completion of one of the following:
 - The prerequisite university mathematics course.
 - The Advanced Placement Exam equivalent to the prerequisite university mathematics course.
 - The College Level Examination Program (CLEP) Exam equivalent to the prerequisite university mathematics course.

Undergraduate Degrees

- [Mathematical Science B.A.](#)
- [Mathematical Science B.A. with Mathematics 4-8 Certification](#)

- [Mathematical Science B.A. with Mathematics 7–12 Certification](#)
- [Mathematical Science B.S.](#)
- [Mathematical Science B.S. with Mathematics 7–12 Certification](#)
- [Mathematics Scholars Plan–Linked B.S.–M.S. degree plans in Mathematics](#)

Minors

- [Mathematics](#)
- [Actuarial Science](#)
- [Statistics](#)

Department of Physical and Applied Sciences

Students desiring to study in the physical and applied sciences department may choose from the undergraduate plans below. The department of physical and applied sciences also include the plans of Industrial Hygiene, Safety and Geology under the degree of Environmental Science. Students should consult the chair of the division for additional information.

Undergraduate Degrees

- [Chemistry B.A.](#)
- [Chemistry B.S.](#)
- [Chemistry Scholars Plan – Linked B.S.–M.S. Degree Plans in Chemistry](#)
- [Occupational Safety and Health B.S.](#)
- [Occupational Safety and Health Scholars Plan – Linked B.S.–M.S.](#)
- [Physics B.S.](#)
- [Physics Scholars Plan – Linked B.S.–M.S. Degree Plans in Physics](#)

Minors

- [Physics](#)
- [Astronomy](#)
- [Chemistry](#)
- [Geology](#)

Accreditations

Various programs in CSE are accredited by the following organizations: The Chemistry Program has complete accreditation from the American Chemical Society (ACS). The undergraduate Occupational Safety and Health–Industrial Hygiene and Safety plans are accredited by the Applied and Natural Science Accreditation Commission of ABET, <http://www.abet.org>.

Degrees and Programs

Bachelors

Accounting B.S.

Undergraduate students majoring in accounting have two options: the Bachelor of Science in Accounting and the integrated Bachelor of Science/Master of Science degrees in Professional Accounting.

The objective of the Bachelor of Science in Accounting is to provide basic conceptual accounting and business knowledge as a foundation for entry level positions in industry, financial institutions and non-profit organizations, as well as to provide a basis for further study to pursue a career in public accounting.

University Core Requirements (42 Hours)

A minimum of 57 upper-level (33XX and 43XX) hours and a total of 120 hours are required for the baccalaureate degree.

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
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WRIT 1302	Composition II Credit Hours: 3
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Additional Information

Grades must be C- or higher

Mathematics (3 hours)

MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
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Additional Information

Grade in Math 1324, must be C- or higher.

Life and Physical Sciences (6 hours)

Choose two course from the approved list:

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours) Choose one course from the approved list:	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
Additional Information	
Other courses may meet this requirement. However, ECON 2301 will still be required for all Business majors)	
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses, or their approved equivalents, constitute the Business Core and are required of all business students. No more than six hours of grades in the range of D+, D or D- are permitted in upper-level (33XX and 43XX) Business Core Requirements.

Core Requirements for Business Majors (48 hours)

ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3

Additional Information

MGMT 4312 Capstone course--requires permission.

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Major Requirements (27 hours)

All courses within the Major Requirements must be completed with a grade of C- or higher.

Accounting Requirements (21 hours)

ACCT 3333	Cost Accounting Credit Hours: 3
ACCT 3341	Intermediate Accounting I Credit Hours: 3
ACCT 3342	Intermediate Accounting II Credit Hours: 3
ACCT 4331	Federal Taxation of Individuals Credit Hours: 3
ACCT 4332	Financial Information Systems Credit Hours: 3
ACCT 4341	Auditing I Credit Hours: 3
ACCT 4352	Advanced Financial Accounting Credit Hours: 3

Accounting Electives (6 hours)

Choose 2 ACCT upper-level (33XX and 43XX) courses other than those already required.

Additional Information

ACCT 3331 and ACCT 3332 cannot be used for this degree.

Elective Requirements (3 hours)**Business Elective Requirement (3 hours)**

(3 hours) Any ONE 33XX or 43XX in ACCT, BAPA, DSCI, FINC, HADM, ISAM, MGMT, or MKTG not previously taken at UHCL or elsewhere.

Additional Information

ACCT 3331 and ACCT 3332 cannot be used for this degree.

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of C or better on at least 30 hours of resident upper-level work. Grades of C- or below cannot be applied toward the 30 hours of resident upper-level work.

Addictions Counseling B.S.

The Bachelor of Science in Addictions Counseling is a 120-semester hour degree program that provides the student with a comprehensive understanding of addiction and its effects, along with counseling techniques and methods to prevent relapse. Successful completion of the addictions counseling degree ensures the student has completed the coursework required to graduate and apply for licensure with the Texas State Department of Health Services to become a Licensed Chemical Dependency Counselor.

University Core Requirements (42 hours):**Communication (6 hours)**

WRIT 1301	Composition I Credit Hours: 3
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WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE course from the UHCL core approved list.	
Life and Physical Sciences (6 hours)	
Choose TWO courses from the UHCL core approved list.	
Language, Philosophy and Culture (3 hours)	
Choose ONE course from the UHCL core approved list.	
Creative Arts (3 Hours)	
Choose ONE course from the UHCL core approved list.	
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and PhysicalScience Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (78 hours):

Addictions Counseling Courses	
COUN 1301	Addictions Counseling Credit Hours: 3
COUN 1302	Pharmacology of Addictions Credit Hours: 3

COUN 1304	Screening, Assessment, Diagnosis, and Referral Credit Hours: 3
COUN 2301	Treatment Planning for Relapse Prevention Credit Hours: 3
COUN 2302	Addictions Counseling Theories Credit Hours: 3
COUN 2303	Addictions Intervention and Prevention Credit Hours: 3
COUN 2305	Group Process for Addictions Credit Hours: 3
COUN 2306	Counseling Skills for Addictions Professionals Credit Hours: 3
COUN 2307	Family Dynamics Credit Hours: 3
COUN 3307	Wellness and Professional Practice Credit Hours: 3
COUN 3312	Socio-Cultural and Political Advocacy in Addictions Counseling Credit Hours: 3
COUN 4301	Documentation, Ethics and the Law for Addictions Counselors Credit Hours: 3
COUN 4304	Adolescents and Addictions Credit Hours: 3
COUN 4305	Addictions and Specific Adult Populations Credit Hours: 3
COUN 4306	Suicide and Violence Assessment, Prevention, and Treatment Credit Hours: 3
COUN 4307	Consultation and Supervision for Addictions Professionals Credit Hours: 3
COUN 4308	Process Addictions Credit Hours: 3
COUN 4309	Addictions Practicum Credit Hours: 3

Other Required Courses (24 hours)

CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
EDUC 3301	Introduction to Educational Statistics and Measurement Credit Hours: 3

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
FINC 3301	Personal Money Management Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Choose ONE of the following	
LEGL 4352	Family Law and Procedure Credit Hours: 3
LEGL 4355	Criminal Law and Procedure Credit Hours: 3

General Degree Requirements

- Students must complete at least 120 semester credit hours. A minimum of 45 hours of the 120 semester hours must be advanced (3000–4000 level) course work according to the requirements of the respective major.
- Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements in the UHCL Catalog).
- Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - Six hours of U.S. history (three hours may be Texas History).
 - Six hours of Constitutions of the United States and Texas.
- Students must demonstrate writing proficiency by completing nine hours of lower-level (1000–2000 level) and upper-level (3000–4000 level) English composition course credit with a minimum grade of "C-" or better. Some majors

may require higher grades in English composition.

- Students must complete at least 25% of the credit hours required for the degree (i.e., 30 semester credit hours for a 120 credit hour program) through instruction offered by UHCL to fulfill the Southern Association of Colleges and Schools (SACS) residency requirements.
- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000–4000 level) coursework in the major in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work

Anthropology B.S.

The Anthropology program emphasizes the study of the whole human being. It is focused on understanding diversity in Houston, the United States, and the world. Through coursework, students explore world cultures and global challenges as well as methods for studying peoples and cultures. The major prepares students to be global citizens by promoting skills for engaging responsibly and ethically in diverse communities in the United States and globally. In particular, the major fosters a number of skills, including cross-cultural communication, critical thinking and writing, and qualitative research and data analysis, which

prepare students to respond creatively to the challenges of Houston's diverse and dynamic employment sector. Anthropology students have opportunities for many exciting site visits to Houston's diverse neighborhoods.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II

	Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	

POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (3 hours)

48 hours of upper-level credit must be "C" or better.

Core Requirement (3 hours)	
Choose ONE of the following.	
WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (42 hours)

Choose ONE of:

HUMN 3374 and HUMN 3375 are strongly recommended. For ARTS 3355, the following may be substituted: HUMN 3355. For ARTS 3356, the following may be substituted: HUMN 3356. For ARTS 4312, the following may be substituted: HUMN 4312. For ARTS 4315, the following may be substituted: HUMN 4315. For ARTS 4322, the following may be substituted: HUMN 4322.

ARTS 3355	Latin American Art of the Twentieth Century Credit Hours: 3
ARTS 3356	Mexican Art, 1500-Present Credit Hours: 3
ARTS 4312	Art of Ancient Iraq and the Near East Credit Hours: 3
ARTS 4315	Art of the Ancient Greek World Credit Hours: 3
ARTS 4322	Roman Art Credit Hours: 3
HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
LITR 3334	Mythology Credit Hours: 3
WRIT 4313	Graffiti, Texting, and Networked Politics: The Sociolinguistics of Writing Credit Hours: 3

Choose ONE of:

ANTH 4372 or ANTH 4302 are strongly recommended.

ANTH 4302	Applied Anthropology Credit Hours: 3
ANTH 4372	Applied Qualitative Methods Credit Hours: 3
PSYC 4371	Experimental Methods and Statistics Credit Hours: 3

Choose ONE of:

GEOG 4321	Fundamentals of Geographic Information Systems Credit Hours: 3
PSYC 4370	Nonexperimental Methods and Statistics Credit Hours: 3

SOCI 4384	Statistics Credit Hours: 3
Diversity Requirement	
Choose TWO of the following courses. For ANTH 4341, the following may be substituted: SOCI 4341 or WGST 4341. For PSYC 4356, the following may be substituted: SOCI 4356	
ANTH 3355	Topics in Asian Studies Credit Hours: 3
ANTH 3357	Topics in African Studies Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ANTH 4341	Gender and Sexuality in Global Perspectives Credit Hours: 3
PSYC 4334	Psychology of Women Credit Hours: 3
PSYC 4356	The Aging Experience Credit Hours: 3
SOCI 3352	Urban Sociology Credit Hours: 3
SOCI 4316	Women and the Law Credit Hours: 3
SOCI 4317	Race and the Law Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3
SWRK 3324	Oppression, Diversity, and Social Justice Credit Hours: 3
Anthropology	
ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
Choose ONE of:	
SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3

Choose ONE of:	
PSYC 3331	Theories of Personality Credit Hours: 3
PSYC 4314	Child Psychology Credit Hours: 3
PSYC 4315	Adolescent Psychology Credit Hours: 3
PSYC 4318	Sensation and Perception Credit Hours: 3
PSYC 4334	Psychology of Women Credit Hours: 3
PSYC 4348	Development of Gender and Racial Identity Credit Hours: 3
PSYC 4349	Psychology of Latina/os in the U.S. Credit Hours: 3
Subject Requirements	
Choose TWO of the following courses.	
ANTH 3330	Interdisciplinary Perspectives in Global Health Credit Hours: 3
ANTH 3334	Human Sex, Culture, Health Credit Hours: 3
ANTH 3352	Political/Economic Anthropology Credit Hours: 3
ANTH 3361	Anthropology of Food Credit Hours: 3
ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4302	Applied Anthropology Credit Hours: 3
ANTH 4341	Gender and Sexuality in Global Perspectives Credit Hours: 3
ANTH 4342	Human Rights, Social Justice, Health Credit Hours: 3
ANTH 4343	Anthropological Perspectives on World Religion Credit Hours: 3
ANTH 4351	Families, Communities, and Globalization Credit Hours: 3

ANTH 4352	World Prehistory and Archaeology Credit Hours: 3
ANTH 4364	Visual Anthropology Credit Hours: 3
Area Requirement	
Choose TWO of the following courses.	
ANTH 3355	Topics in Asian Studies Credit Hours: 3
ANTH 3357	Topics in African Studies Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ANTH 4334	Native Americans Credit Hours: 3
Required Anthropology Electives	
Choose TWO ANTH courses (3 hours must be 3300/4300 level.)	
Electives (33 hours)	
Students may complete a Minor with elective hours. (30 hours may be from the 1300/2300 level. 3 hours must be from any 3300/4300 level courses.)	

Anthropology Concentration Areas

In order to organize their studies, explore a specific topic, and prepare for careers, students may select one of the following concentrations. Students who complete a concentration will receive a certificate. For more information, contact a full-time Anthropology faculty member. Concentration areas may be found below.

International and Global Studies	
Select THREE of the following courses.	
ANTH 3355	Topics in Asian Studies Credit Hours: 3
ANTH 3357	Topics in African Studies Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies

	Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ANTH 4334	Native Americans Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4302	Geography of Latin America Credit Hours: 3
Latin American Studies	
Select THREE of the following courses. For ARTS 3355, the following may be substituted: HUMN 3355. For ARTS 3356, the following may be substituted: HUMN 3356.	
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ARTS 3355	Latin American Art of the Twentieth Century Credit Hours: 3
ARTS 3356	Mexican Art, 1500–Present Credit Hours: 3
HIST 3319	Colonial Latin America Credit Hours: 3
HIST 3321	Modern Latin America Credit Hours: 3
HIST 3323	History of Mexico Credit Hours: 3
HIST 4309	Studies in Latin American History Credit Hours: 3
PSYC 4349	Psychology of Latina/os in the U.S. Credit Hours: 3
WGST 4314	Latina Social Movements in the Americas Credit Hours: 3
Middle Eastern Studies	
Select THREE of the following courses. ANTH 4330 when the topic is Middle Eastern country.	
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4330	Cultural Study Abroad Credit Hours: 3
SOCI 4329	Egypt in Transition Credit Hours: 3

Women, Gender, and Sexuality

Select THREE of the following courses.

ANTH 3334	Human Sex, Culture, Health Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4341	Gender and Sexuality in Global Perspectives Credit Hours: 3
ANTH 4351	Families, Communities, and Globalization Credit Hours: 3
WGST 4314	Latina Social Movements in the Americas Credit Hours: 3

Social Justice

Select THREE of the following courses. ANTH 4301 when the topic is Public Culture.

ANTH 3361	Anthropology of Food Credit Hours: 3
ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4342	Human Rights, Social Justice, Health Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3

Health in Cross-Cultural Perspectives

Select THREE of the following courses.

ANTH 3330	Interdisciplinary Perspectives in Global Health Credit Hours: 3
ANTH 3334	Human Sex, Culture, Health Credit Hours: 3
ANTH 3361	Anthropology of Food Credit Hours: 3
ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3
ANTH 4342	Human Rights, Social Justice, Health Credit Hours: 3

Immigration, Refugees, Globalization

ANTH 3357	Topics in African Studies
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	Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4302	Applied Anthropology Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3

Art and Design B.F.A. with Grades EC-12 Art Certification

Note: This degree requires a minimum of 127 credit hours.

The B.F.A. in Art and Design with EC-12 Art Certification leads to a B.F.A. in Art and Design. The teacher certification prepares students to teach art at any level from early childhood through high school.

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (a minimum of 3 hours)

Choose ONE of the following courses.

MATH 1314	College Algebra Credit Hours: 3
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3

MATH 1332	Contemporary Mathematics Credit Hours: 3
MATH 1342	Elementary Statistical Methods Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
MATH 2413	Calculus I Credit Hours: 4
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3

PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3

ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College of Human Sciences and Humanities Core Requirements (6 hours)

30 hours of upper-level credit must be "C" or better, as well as WRIT 3304 or WRIT 3307

Core Requirement (3 hours)	
Choose ONE of the following courses.	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Humanities Requirements (3 hours)	
Choose ONE of the following courses. Students may also choose a 4300-level Art History elective to fulfill this requirement. (This Art History elective cannot satisfy the requirements for any other part of the degree.)	
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

College of Education Core Requirements (19 hours)

Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Teacher Education Program (TEP) Admission Requirements

- Completion of 60 semester credit hours.
- Completion of prerequisite coursework (EDUC 4310, INST 3313, SILC 4315, and TCED 4102.)
- Completion of public speaking requirement.
- Completion of Basic Skills in Reading, Mathematics, and Writing.
- 2.750 GPA overall or in the last 60 semester credit hours.
- Completion of 12 semester credit hours in the subject-specific content area for target teacher certification.
- \$37 TEA Admission Fee
- Application for admission to the [Teacher Education Program \(TEP\)](#).

Major Requirements (45 hours)

Note on major requirements:

GPA of 2.500 or higher required in ARTS and LLLS coursework.

Required ARTS Courses (42 hours)

Students must complete a 3300/4300-level Art History elective (preferably ARTS 4374) and a 3300/4300-level Studio Art elective.

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 1311	Design Foundations Credit Hours: 3
ARTS 1316	Drawing Foundations Credit Hours: 3
ARTS 2316	Painting Credit Hours: 3
ARTS 2371	Digital Photography Credit Hours: 3
ARTS 3310	Sculpture Credit Hours: 3
ARTS 3320	Ceramics Credit Hours: 3
ARTS 3331	Intermediate Drawing Credit Hours: 3
ARTS 3335	Intermediate Painting Credit Hours: 3
ARTS 3340	Printmaking Credit Hours: 3
ARTS 3360	Graphic Design Credit Hours: 3

Required Education Courses (4 hours)

LLLS 4351	Reading in Content Subjects Credit Hours: 3
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Pedagogy Requirements (18 hours)

Courses

ARTS 4300	Methods in Elementary Art Education Credit Hours: 3
ARTS 4301	Methods in Secondary Art Education

	Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9

Additional Information

- Enrollment in the courses listed above requires admission to the TEP.
- 3.000 GPA required in pedagogy coursework.
- TCED 4378 Pre-Service Internship I must be taken in the long semester immediately preceding the final semester.
- TCED 4978 Pre-Service Internship II must be taken in the final semester.

Teacher Certification Requirements

- Passing scores on the appropriate state assessments (Texas Examinations of Educator Standards [TExES]) are required for recommendation for teacher certification.
 - EC-12 Art TExES #178
 - EC-12 Pedagogy and Professional Responsibilities TExES #160
- All courses outside the University Core must be "C-" or better unless otherwise stated.

Art and Design B.F.A. with Graphic Design Concentration

The undergraduate major in Art and Design leads to the Bachelor of Fine Arts in Art and Design. Its flexibly structured program prepares students for professional careers and graduate studies while supporting the liberal arts tradition. The degree leads to careers and teaching positions in graphic design, studio art, lens media (photography and video), visual communication, and teaching certification at

all levels (EC-12). Students often choose the Art and Design major to develop creativity and the capacity for critical thinking about visual culture.

The Art and Design major includes three distinct and interrelated concentrations: [Graphic Design](#), [Studio Art](#), and [EC-12 Teacher Certification](#). The Graphic Design concentration prepares students for the intense visual requirements of today's computer-based design industry. The Studio Art concentration prepares students to be competitive professional artists as they work in both traditional and contemporary media. The Art and Design B.F.A. with EC-12 certification prepares students to teach art at any level from early childhood through high school.

To earn the B.F.A. degree, students take a minimum of 120 credit hours except for those who are pursuing the B.F.A. with EC-12 certification, who must take a minimum of 127 hours. Students will select the B.F.A. concentration that best satisfies their academic, professional, and artistic goals. WRIT 3307 must be completed with a grade of "C" or better. Thirty hours of upper-level credit must also be completed with grades of "C" or better.

The Graphic Design concentration includes 45 upper-level hours to be taken from the ARTS rubric and approved COMM courses.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

Choose ONE of the following courses:

MATH 1314	College Algebra Credit Hours: 3
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
MATH 1342	Elementary Statistical Methods Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
MATH 2413	Calculus I Credit Hours: 4

Life and Physical Sciences (6 hours)

Choose TWO of the following courses.

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3

ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government

	Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (6 hours)

30 hours of upper-level credit must be "C" or better.

Core Requirement

Choose ONE of the following courses.

WRIT 3305	Writing for the Humanities Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Humanities Requirements (3 hours)

Choose ONE of the following courses. Students may also choose a 4300-level Art History elective to fulfill this requirement. (This Art History elective cannot satisfy the requirements for any other part of the degree.)

HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

Major Requirements (72 hours)

Lower-Level Art courses

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 1311	Design Foundations Credit Hours: 3
ARTS 1316	Drawing Foundations Credit Hours: 3
ARTS 2371	Digital Photography Credit Hours: 3

Upper-Level Art courses

Students may choose between ARTS 4358 and a 3300/4300-level course in Modern or Contemporary Art History. Students must also complete a 3300/4300-level Art History course.

ARTS 4358	History and Theory of Graphic Design Credit Hours: 3
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Sculpture Requirements

Choose ONE of the following:

ARTS 3310	Sculpture Credit Hours: 3
ARTS 3320	Ceramics Credit Hours: 3

Studio Requirements

ARTS 3333	Life Drawing Credit Hours: 3
ARTS 3360	Graphic Design Credit Hours: 3
ARTS 4339	Silkscreen Printing Credit Hours: 3

Graphic Concentration Requirements

Choose 7 ARTS courses: 4 should be from the approved list of Graphic Design Concentration electives, available from the program director of the HSH Office of Advising and 3 could be any ARTS courses at the 3300/4300 level with the advice of faculty adviser.

Electives

Choose FIVE courses (any 3300/4300 level)

Seminar Course

This course should be completed during the final semester. It is recommended that students pair Senior Seminar concurrently with a course from the approved list of Graphic Design Concentration electives, available from the program director or the HSH Office of Advising.

ARTS 4390	Senior Seminar in Art Credit Hours: 3
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Art and Design B.F.A. with Studio Art Concentration

The undergraduate major in Art and Design leads to the Bachelor of Fine Arts in Art and Design. Its flexibly structured program prepares students for professional careers and graduate studies while supporting the liberal arts tradition. The degree leads to careers and teaching positions in graphic design, studio art, lens media (photography and video), visual communication, and teaching certification at all levels (EC-12). Students often choose the Art and Design major to develop creativity and the capacity for critical thinking about visual culture.

The Art and Design major includes three distinct and interrelated concentrations: [Graphic Design](#), [Studio Art](#), and [EC-12 Teacher Certification](#). The Graphic Design concentration prepares students for the intense visual requirements of today's computer-based design industry. The Studio Art concentration prepares students to be competitive professional artists as they

work in both traditional and contemporary media. The Art and Design B.F.A. with EC-12 certification prepares students to teach art at any level from early childhood through high school.

To earn the B.F.A. degree, students take a minimum of 120 credit hours. Students pursuing the B.F.A. with EC-12 certification must take 127 hours. Students will select the B.F.A. concentration that best satisfies their academic, professional, and artistic goals. Students then take 51 credit hours of upper-level coursework to complete the degree. WRIT 3307 must be completed with a grade of "C" or better. Thirty hours of upper-level credit must also be completed with a grade of "C" or better.

Studio Art requires 45 upper-level hours to be taken from the ARTS rubric.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
MATH 1342	Elementary Statistical Methods Credit Hours: 3

MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
MATH 2413	Calculus I Credit Hours: 4
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3

PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3

GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (6 hours)

30 hours of upper-level credit must be "C" or better.

Core Requirement	
Choose ONE of the following courses.	
WRIT 3305	Writing for the Humanities Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Humanities Requirements (3 hours)	
Choose ONE of the following courses. Students may also choose a 4300 level Art History elective to fulfill this requirement. (This Art History elective cannot satisfy the requirements for any other part of the degree.)	
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

Major Requirements (72 hours)

Lower-Level Art courses	
ARTS 1303	World Art Survey I Credit Hours: 3

ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 1311	Design Foundations Credit Hours: 3
ARTS 1316	Drawing Foundations Credit Hours: 3
ARTS 2316	Painting Credit Hours: 3
ARTS 2371	Digital Photography Credit Hours: 3
Upper-Level Art courses	
Students may choose between ARTS 4374 and a 4300-level course in Modern or Contemporary Art History course. Students must also complete a 4300-level Art History course.	
ARTS 4374	Modern Art Credit Hours: 3
Studio Requirements	
ARTS 3310	Sculpture Credit Hours: 3
ARTS 3320	Ceramics Credit Hours: 3
ARTS 3333	Life Drawing Credit Hours: 3
ARTS 3340	Printmaking Credit Hours: 3
ARTS 3360	Graphic Design Credit Hours: 3
Studio Concentration Requirements	
Choose 7 art courses at the 3300/4300 level with the advice of faculty adviser.	
Seminar course	
ARTS 4390	Senior Seminar in Art Credit Hours: 3
Electives	
Choose THREE courses (3300/4300 any level)	

Behavioral Sciences B.S. - General

The undergraduate major in Behavioral Sciences leads to the Bachelor of Science (B.S.) degree. This major allows students to combine into one degree courses from an array of disciplines including anthropology, criminology, geography, psychology, social work, and sociology. The philosophy behind this multidisciplinary approach is the recognition that human behavior and societal problems are too complex to be fully covered by one academic discipline. Majors take multidisciplinary core behavioral science classes and two disciplinary concentrations. Selections are made based on the student's academic and career goals. Students are assigned advisers based on their interests.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3

ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3

WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3

Component Area Options (3 hours)

Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.

PSYC 1100	Learning Frameworks Credit Hours: 1
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College Core Requirements (3 hours)

48 hours of upper-level credit must be a "C" or better.

Core Requirement (3 hours)

Choose ONE of the following courses.

WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (42 hours)**Courses**

Choose ONE of the following courses.

HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
LITR 3334	Mythology Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

Statistics and Methods Requirement (first of two)

Choose ONE of the following courses.

CRIM 4384	Statistics Credit Hours: 3
PSYC 4370	Nonexperimental Methods and Statistics Credit Hours: 3
SOCI 4384	Statistics

Credit Hours: 3

Statistics and Methods Requirement (second of two)

Choose ONE of the following courses.

ANTH 4372	Applied Qualitative Methods Credit Hours: 3
CRIM 4385	Research Methods Credit Hours: 3
GEOG 4321	Fundamentals of Geographic Information Systems Credit Hours: 3
PSYC 4371	Experimental Methods and Statistics Credit Hours: 3
SOCI 4385	Research Methods Credit Hours: 3

Diversity Requirement

Choose TWO of the following courses. For ANTH 4341, the following may be substituted: SOCI 4341 or WGST 4341. For PSYC 4356, the following may be substituted: SOCI 4356.

ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ANTH 4341	Gender and Sexuality in Global Perspectives Credit Hours: 3
CRIM 4335	Race and Justice Credit Hours: 3
GEOG 4302	Geography of Latin America Credit Hours: 3
PSYC 4334	Psychology of Women Credit Hours: 3
PSYC 4356	The Aging Experience Credit Hours: 3
SOCI 3352	Urban Sociology Credit Hours: 3
SOCI 4316	Women and the Law Credit Hours: 3
SOCI 4317	Race and the Law Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3

SWRK 3314	Diversity and Human Behavior in the Social Environment Credit Hours: 3
SWRK 3324	Oppression, Diversity, and Social Justice Credit Hours: 3
WGST 4308	Perspectives in Women's and Gender Studies Credit Hours: 3
Choose THREE of the following courses.	
For the following, only one PSYC or SOCI course may be selected: PSYC 3331 SOCI 4312 or SOCI 4322	
ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
GEOG 4312	Human Geography Credit Hours: 3
PSYC 3331	Theories of Personality Credit Hours: 3
SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3

Concentrations (18 hours)

In order to organize their studies, explore a specific topic, and prepare for future careers, students will take courses from two of the concentrations.

Choose 9 hours out of each of the two of the following six categories. These courses may not be used to fulfill any other requirement.

Anthropology Concentration	
ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
ANTH 3334	Human Sex, Culture, Health Credit Hours: 3
ANTH 3355	Topics in Asian Studies Credit Hours: 3
ANTH 3357	Topics in African Studies Credit Hours: 3

ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 3361	Anthropology of Food Credit Hours: 3
ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4302	Applied Anthropology Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ANTH 4334	Native Americans Credit Hours: 3
ANTH 4341	Gender and Sexuality in Global Perspectives Credit Hours: 3
ANTH 4342	Human Rights, Social Justice, Health Credit Hours: 3
ANTH 4343	Anthropological Perspectives on World Religion Credit Hours: 3
ANTH 4351	Families, Communities, and Globalization Credit Hours: 3
ANTH 4352	World Prehistory and Archaeology Credit Hours: 3
ANTH 4364	Visual Anthropology Credit Hours: 3
Criminology Concentration	
CRIM 3312	Criminology Credit Hours: 3
CRIM 4313	Juvenile Delinquency Credit Hours: 3
CRIM 4331	Corrections Credit Hours: 3
CRIM 4334	Criminal Law Credit Hours: 3
CRIM 4338	Policing and Society Credit Hours: 3
Geography Concentration	
GEOG 4300	Geography of North America Credit Hours: 3

GEOG 4302	Geography of Latin America Credit Hours: 3
GEOG 4303	Geography of Texas Credit Hours: 3
GEOG 4312	Human Geography Credit Hours: 3
Psychology Concentration	
PSYC 3321	Learning Credit Hours: 3
PSYC 3331	Theories of Personality Credit Hours: 3
PSYC 4314	Child Psychology Credit Hours: 3
PSYC 4315	Adolescent Psychology Credit Hours: 3
PSYC 4382	Cognitive Psychology Credit Hours: 3
Sociology Concentration	
SOCI 3312	Criminology Credit Hours: 3
SOCI 3335	Deviance Credit Hours: 3
SOCI 3351	Political Sociology Credit Hours: 3
SOCI 3352	Urban Sociology Credit Hours: 3
SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3
SOCI 4323	Religion in Society Credit Hours: 3
SOCI 4324	Organizations in Society Credit Hours: 3
SOCI 4328	Social Conflict and Mediation Credit Hours: 3
SOCI 4341	Women in Society Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3
SOCI 4357	Sociology of Family, Work, and Gender

	Credit Hours: 3
SOCI 4358	Family and Society Credit Hours: 3
SOCI 4359	Family Policy Credit Hours: 3
SOCI 4363	American Immigration and the Immigrant Experience Credit Hours: 3
SOCI 4364	Medical Sociology Credit Hours: 3
SOCI 4365	Sociology of Mental Health and Illness Credit Hours: 3
SOCI 4367	Women's Health and Sexuality Credit Hours: 3
Social Work Concentration	
SWRK 3301	Introduction to Social Work Credit Hours: 3
SWRK 3304	Issues and Ethics in Social Work Credit Hours: 3
SWRK 3314	Diversity and Human Behavior in the Social Environment Credit Hours: 3
SWRK 3317	Social Welfare Policy and Services Credit Hours: 3
SWRK 3324	Oppression, Diversity, and Social Justice Credit Hours: 3
Elective Requirements (33 hours)	
18 hours may be lower-level electives (any 1300/2300 level courses) 15 hours must be upper-level (any 3300/4300 level courses)	

Biological Science B.A.

The plan in Biological Science leads to the bachelor of arts (B.A.) degree. This plan is designed to prepare students for advanced study, technical positions in environmental or biomedical research or teaching.

The B.A. in Biological Sciences is designed primarily for students interested in

teaching biology at the middle or high school level.

Biological Science B.A. Degree Requirements

This degree requires 120 hours and includes 42 hours of University Core. However, some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the list.	

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major and Elective Requirements (78 hours)

The course of study for the B.A. in Biological Sciences requires 42 hours of University core courses, plus 78 hours of major and elective requirements in the sciences (BIOL, CHEM, ENSC or GEOL) or other areas as approved by the faculty adviser.

Major Courses	
Students must complete the following core courses with grades of "C" or better.	
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2123	Laboratory for Organic Chemistry I Credit Hours: 1
MATH 1314	College Algebra Credit Hours: 3
Environment Major Courses	
Choose one from the list.	
BIOL 3333	Environmental Biology Credit Hours: 3
BIOL 3311	Marine Biology Credit Hours: 3
BIOL 4305	Ecology of the Amazon

Credit Hours: 3	
Additional Information	
Required minimum grade for Major Requirements is "C" unless otherwise noted. Grades of "C-" and below are not accepted.	
Population Major Courses	
Choose one from the list.	
BIOL 4311	Ecology Credit Hours: 3
BIOL 3335	Epidemiology Credit Hours: 3
Anatomy and Lab	
Select one of the following groups:	
Group 1:	
BIOL 2428	Vertebrate Zoology Credit Hours: 4
Group 2:	
BIOL 3313	Plant Anatomy Credit Hours: 3
BIOL 3113	Laboratory for Plant Anatomy Credit Hours: 1
Group 3:	
BIOL 3373	Human Anatomy Credit Hours: 3
BIOL 3173	Laboratory for Human Anatomy Credit Hours: 1
Group 4:	
BIOL 4313	Biology of Fishes Credit Hours: 3
BIOL 4113	Laboratory for Biology of Fishes Credit Hours: 1
Physiology	
Choose one from the list.	
BIOL 4344	Comparative Animal Physiology Credit Hours: 3
BIOL 4345	Human Physiology Credit Hours: 3
BIOL 4343	Plant Physiology Credit Hours: 3

Microbiology and Lab	
BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
Cellular Biology	
Choose one from the list.	
BIOL 3307	Cell Biology Credit Hours: 3
BIOL 4341	Biochemistry I Credit Hours: 3
Genetics and Lab	
BIOL 3341	Molecular Genetics Credit Hours: 3
BIOL 3141	Laboratory for Molecular Genetics Credit Hours: 1
Required Support Courses (grades of C- allowed)	
STAT 3308	Computational Statistics Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3

Specialization in General Biology Requirements (29 hours)

In addition to the required core courses, students in the General Biology Specialization must complete an additional 36 hours of designated elective courses. These courses may be selected from the list below or other courses from lists above, or as approved by faculty adviser. These courses must be completed with grades of "C-" or better.

Specialization Courses	
BIOL 3306	Development of the Sciences Credit Hours: 3
BIOL 4315	Biology Practicum Credit Hours: 3
BIOL 4334	Environmental Microbiology

	Credit Hours: 3
BIOL 4323	Field Biology Credit Hours: 3
BIOL 4327	Plant Identification Credit Hours: 3
BIOL 4189	Independent Study in Biology Credit Hours: 1
BIOL 4289	Independent Study in Biology Credit Hours: 2
BIOL 4389	Independent Study in Biology Credit Hours: 3
BIOL 4391	Selected Topics in the Biological Sciences Credit Hours: 3

Additional Information

In addition to the courses listed, any BIOL x3xx Approved Elective will fulfill this requirement.

Biological Science B.S.

The plan in Biological Science leads to the bachelor of science (B.S.) degree. This plan is designed to prepare students for advanced study, technical positions in environmental or biomedical research or teaching.

The B.S. in Biology is designed to prepare students for advanced study in the health professions or other areas of biology, or for professional careers in biomedicine, biotechnology, environmental biology and forensic biology. The Physiology / Pre-Health specialization within the B.S. plan is particularly applicable to students preparing for medical or dental school or other health-related professions.

Biological Science B.S. Degree Requirements

This degree requires 120 hours and includes 42 hours of University Core. However, some of

the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Life and Physical Sciences (6 hours)	
Choose two courses from list.	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3

American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major and Elective Requirements (78 hours)

The course of study for the B.S. in Biological Science requires 42 hours of University core courses, plus 78 hours of required courses and designated electives within the chosen

specialization area. All designated electives must be selected from the list of approved courses associated with each specialization area. Students must complete the following core courses in biology with grades of "C" or better (grades of "C-" or below are not acceptable). The math and writing core courses must be completed with grades of "C-" or better.

Core Courses

Students must complete the following core courses in biology with grades of "C" or better (grades of "C-" or below are not acceptable). The math and writing core courses must be completed with grades of "C-" or better.

BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 3141	Laboratory for Molecular Genetics Credit Hours: 1
BIOL 3341	Molecular Genetics Credit Hours: 3
BIOL 4242	Laboratory for Biochemistry Credit Hours: 2
BIOL 4278	Seminar in Biology Credit Hours: 2
BIOL 4311	Ecology Credit Hours: 3
BIOL 4341	Biochemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 2123	Laboratory for Organic Chemistry I

	Credit Hours: 1
CHEM 2125	Laboratory for Organic Chemistry II Credit Hours: 1
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2325	Organic Chemistry II Credit Hours: 3
MATH 2413	Calculus I Credit Hours: 4
PHYS 1101	Laboratory for College Physics I Credit Hours: 1
PHYS 1102	Laboratory for College Physics II Credit Hours: 1
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
STAT 3308	Computational Statistics Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3

Specialization in Cell/Molecular/ Biotechnology Requirements

Specialization Requirements

BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 4342	Biochemistry II Credit Hours: 3
BIOL 4347	Cellular Physiology Credit Hours: 3
BIOL 4348	Developmental Biology Credit Hours: 3
BIOL 4351	Molecular Biology Credit Hours: 3
Physiology (3 hours)	
Choose one course from list.	
BIOL 4345	Human Physiology Credit Hours: 3

BIOL 4344	Comparative Animal Physiology Credit Hours: 3
BIOL 4343	Plant Physiology Credit Hours: 3
Anatomy with lab (4 hours):	
Choose one of the groups with lab.	
Group 1:	
BIOL 3373	Human Anatomy Credit Hours: 3
BIOL 3173	Laboratory for Human Anatomy Credit Hours: 1
Group 2:	
BIOL 2428	Vertebrate Zoology Credit Hours: 4
Group 3:	
BIOL 3313	Plant Anatomy Credit Hours: 3
BIOL 3113	Laboratory for Plant Anatomy Credit Hours: 1
Specialization Elective Courses (10 hours)	
Choose from the specialization elective courses below or other courses from lists above.	
BIOL 4332	Histology Credit Hours: 3
BIOL 4346	Pathophysiology Credit Hours: 3
BIOL 4252	Molecular Biology Laboratory Credit Hours: 2
BIOL 4355	Tissue Culture Credit Hours: 3
BIOL 4253	Laboratory for Biotechnology Credit Hours: 2
BIOL 4361	Immunology Credit Hours: 3
BIOL 4254	Laboratory for Eukaryotic Gene Expression Credit Hours: 2
BIOL 4371	Cancer Biology Credit Hours: 3
BIOL 4189	Independent Study in Biology Credit Hours: 1

BIOL 4289	Independent Study in Biology Credit Hours: 2
BIOL 4291	Laboratory Topics in Biology Credit Hours: 2
BIOL 4389	Independent Study in Biology Credit Hours: 3
BIOL 4391	Selected Topics in the Biological Sciences Credit Hours: 3

Specialization in Physiology/Pre-Health Specialization Requirements

Specialization Requirements	
BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
BIOL 3373	Human Anatomy Credit Hours: 3
BIOL 3173	Laboratory for Human Anatomy Credit Hours: 1
BIOL 4241	Laboratory for Physiology Credit Hours: 2
BIOL 4342	Biochemistry II Credit Hours: 3
BIOL 4345	Human Physiology Credit Hours: 3
BIOL 4361	Immunology Credit Hours: 3
Specialization Designated Courses (3 hours)	
Choose one course from list.	
BIOL 4347	Cellular Physiology Credit Hours: 3
BIOL 4346	Pathophysiology Credit Hours: 3
BIOL 4351	Molecular Biology Credit Hours: 3
Specialization Elective Courses (11 hours)	
Choose from the specialization elective courses below or other courses from lists above.	

BIOL 4332	Histology Credit Hours: 3
BIOL 3335	Epidemiology Credit Hours: 3
BIOL 4325	Environmental Toxicology Credit Hours: 3
BIOL 4348	Developmental Biology Credit Hours: 3
BIOL 4253	Laboratory for Biotechnology Credit Hours: 2
BIOL 4371	Cancer Biology Credit Hours: 3
BIOL 4391	Selected Topics in the Biological Sciences Credit Hours: 3
BIOL 4189	Independent Study in Biology Credit Hours: 1
BIOL 4289	Independent Study in Biology Credit Hours: 2
BIOL 4291	Laboratory Topics in Biology Credit Hours: 2
BIOL 4389	Independent Study in Biology Credit Hours: 3
Additional Information	
In addition to the courses listed, a HLTH XX3X Approved Elective, PSYC xx3x Approved Elective will fulfill this requirement.	

Specialization in Ecology/Microbiology/ Aquatic and Marine Biology Requirements

Physiology

Choose one from the list.

BIOL 4343	Plant Physiology Credit Hours: 3
BIOL 4344	Comparative Animal Physiology Credit Hours: 3

Anatomy and Lab

Select one of the following groups:

Group 1:

BIOL 2428	Vertebrate Zoology Credit Hours: 4
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Group 2:

BIOL 3313	Plant Anatomy Credit Hours: 3
BIOL 3113	Laboratory for Plant Anatomy Credit Hours: 1
Group 3:	
BIOL 4313	Biology of Fishes Credit Hours: 3
BIOL 4113	Laboratory for Biology of Fishes Credit Hours: 1
Microbiology and Lab	
BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
Environmental Biology	
BIOL 3333	Environmental Biology Credit Hours: 3
Field Biology	
BIOL 4323	Field Biology Credit Hours: 3
Specialization Designated Courses (6 hours)	
Choose two courses from the list.	
BIOL 3311	Marine Biology Credit Hours: 3
BIOL 4325	Environmental Toxicology Credit Hours: 3
BIOL 4314	Freshwater Biology Credit Hours: 3
BIOL 4334	Environmental Microbiology Credit Hours: 3
BIOL 4349	Plant Development Credit Hours: 3
Specialization Elective Courses (10 hours)	
Choose from the specialization elective courses or other courses from list above.	
BIOL 4327	Plant Identification Credit Hours: 3
BIOL 3335	Epidemiology Credit Hours: 3

BIOL 4305	Ecology of the Amazon Credit Hours: 3
BIOL 4361	Immunology Credit Hours: 3
BIOL 4347	Cellular Physiology Credit Hours: 3
BIOL 4253	Laboratory for Biotechnology Credit Hours: 2
BIOL 4391	Selected Topics in the Biological Sciences Credit Hours: 3
BIOL 4189	Independent Study in Biology Credit Hours: 1
BIOL 4289	Independent Study in Biology Credit Hours: 2
BIOL 4389	Independent Study in Biology Credit Hours: 3

Specialization in Plant Science Requirements

Specialization Requirements	
BIOL 3313	Plant Anatomy Credit Hours: 3
BIOL 3113	Laboratory for Plant Anatomy Credit Hours: 1
BIOL 4343	Plant Physiology Credit Hours: 3
BIOL 4349	Plant Development Credit Hours: 3
Specialization Designated Courses (3 hours)	
Choose from the following specialization elective courses or other courses from list above.	
BIOL 4342	Biochemistry II Credit Hours: 3
BIOL 4327	Plant Identification Credit Hours: 3
BIOL 3333	Environmental Biology Credit Hours: 3
Specialization Elective Courses (20 hours)	
BIOL 4254	Laboratory for Eukaryotic Gene Expression Credit Hours: 2
BIOL 4347	Cellular Physiology

	Credit Hours: 3
BIOL 4252	Molecular Biology Laboratory Credit Hours: 2
BIOL 4305	Ecology of the Amazon Credit Hours: 3
BIOL 4189	Independent Study in Biology Credit Hours: 1
BIOL 4289	Independent Study in Biology Credit Hours: 2
BIOL 4291	Laboratory Topics in Biology Credit Hours: 2
BIOL 4315	Biology Practicum Credit Hours: 3
BIOL 4389	Independent Study in Biology Credit Hours: 3
BIOL 4391	Selected Topics in the Biological Sciences Credit Hours: 3

Biological Science B.S. - M.S. Clinical Laboratory Sciences

The University of Houston–Clear Lake College of Science and Engineering and the University of Texas Medical Branch in Galveston have signed an agreement for a collaborative Bachelor of Science in Biological Sciences–Masters of Science in Clinical Laboratory Sciences degree program. Students enrolled in this program will be required to first attend UHCL for approximately three (3) years, completing a minimum of 92 semester credit hours of undergraduate coursework, including the UTMB–CLS program prerequisite course requirements. Following successful completion of the required curriculum at UHCL, the student will be admitted to the UTMB–CLS Program, contingent upon the following:

- A grade of "B" or better in all required prerequisite courses.
- A cumulative GPA of 3.00 or above for all courses taken in the three year curriculum at UHCL.
- A cumulative GPA of 3.00 or above for all required science courses.
- A positive recommendation by the UTMB Program's Admissions Committee
- A positive record of ethical behavior during enrollment at UHCL.
- Three positive letters of recommendation: one from the Chair of Biological Sciences at UHCL, one from a full-time biology faculty member at UHCL, and one from a full-time chemistry faculty member at UHCL. Both UHCL faculty members must have taught the student in his/her sophomore year or later.

Upon successful completion of the first year of the UTMB-CLS program coursework the student will be awarded a B.S. degree in Biological Sciences from UHCL. Upon successful completion of the CLS degree requirements at UTMB the student will be awarded the M.S. degree in Clinical Laboratory Sciences from UTMB. In total this is approximately a five year degree program.

For more information on this collaborative degree program please contact the Biology Program Chair.

Specialization Requirements

Specialization Requirements

Minimum 1 hour specialization elective taken at UHCL. Choose from BIOL 3335, 4189, 4253, 4289, 4332, 4348, 4371, 4389, 4391.

BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
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BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 4345	Human Physiology Credit Hours: 3

To be completed at UTMB (28 Hours)

Required Courses

CLLS 3200CLLS 3405CLLS 4325CLLS 3544CLLS 3417CLLS 4417CLLS 5319MSHP 5302

Biological Sciences B.A. with Life Sciences 7-12 Certification

This certificate is offered through the College of Education (COE) with the degree being offered through the College of Science and Engineering (CSE). Please refer to CSE's portion of the catalog for additional information regarding its degrees. Check prerequisites before enrolling in any courses.

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

MATH 1314	College Algebra Credit Hours: 3
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Life and Physical Sciences (6 hours)

CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose one course from the list.

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)

Choose one course from the list.

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3

American History (6 hours)

HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3

Government/ Political Science (6 hours)

POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3

Social and Behavioral Sciences (3 hours)

Choose one course from the list.

ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3

PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3

Component Area Option (6 hours)

COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1

College of Education Core Requirements (30 hours)**College of Education Core**

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 1101	Inquiry Approaches to Teaching Mathematics and Science Step I Credit Hours: 1
TCED 1102	Inquiry Based Lesson Design in Mathematics and Science Step II Credit Hours: 1
TCED 2301	Knowing and Learning Credit Hours: 3
TCED 2303	Classroom Interactions Credit Hours: 3
TCED 3300	Perspectives on Science and Math Credit Hours: 3
TCED 3301	Research Methods in Science Credit Hours: 3
TCED 4300	Project Based Instruction Credit Hours: 3
TCED 4363	Methods in Secondary Mathematics Credit Hours: 3

LLLS 4351	Reading in Content Subjects Credit Hours: 3
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Major Requirements (48 hours)

Major Requirements (48 hours)	
BIOL 3333	Environmental Biology Credit Hours: 3
STAT 3308	Computational Statistics Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
Choose ONE Natural Science Elective, in addition to University Core science (3 hours from: ASTR, BIOL, CHEM, ENSC, GEOL or PHYS)	
BIOL 3341	Molecular Genetics Credit Hours: 3
BIOL 3141	Laboratory for Molecular Genetics Credit Hours: 1
BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2123	Laboratory for Organic Chemistry I Credit Hours: 1
Choose ONE course from the following 2 choices:	
BIOL 3307	Cell Biology Credit Hours: 3
BIOL 4347	Cellular Physiology Credit Hours: 3

Choose ONE course from the following 3 choices:	
BIOL 4343	Plant Physiology Credit Hours: 3
BIOL 4344	Comparative Animal Physiology Credit Hours: 3
BIOL 4345	Human Physiology Credit Hours: 3
Choose ONE course from the following 3 choices:	
BIOL 3311	Marine Biology Credit Hours: 3
BIOL 4305	Ecology of the Amazon Credit Hours: 3
BIOL 4311	Ecology Credit Hours: 3
Choose ONE course from the following 2 choices:	
BIOL 3335	Epidemiology Credit Hours: 3
BIOL 4341	Biochemistry I Credit Hours: 3
Choose ONE course combination from the following 3 choices with required labs:	
BIOL 3313	Plant Anatomy Credit Hours: 3
BIOL 3113	Laboratory for Plant Anatomy Credit Hours: 1
BIOL 3373	Human Anatomy Credit Hours: 3
BIOL 3173	Laboratory for Human Anatomy Credit Hours: 1
BIOL 4313	Biology of Fishes Credit Hours: 3
BIOL 4113	Laboratory for Biology of Fishes Credit Hours: 1

Pedagogy Requirements (7 hours)

Courses	
TCED 4700	Apprentice Teaching and Seminar Credit Hours: 7

- GPA of 2.500 or higher required in Natural Science coursework.

- Grade of B- or better required in WRIT 3315.
- Check prerequisites before enrolling in any courses.

Biology Scholars Plan - Linked B.S.-M.S. Degree Plans in Biology

The Biology Scholars Plan combines the B.S. degree plan in Biology with M.S. degree plans in Biology or Biotechnology with the intention of allowing highly motivated and qualified students to complete both the B.S. and M.S. degrees in biology in a time and cost efficient manner.

These graduate credit hours may be applied toward either the B.S. or M.S. degree, but not both. Additionally, students in the Scholars Plan are expected to begin a graduate research project early in their studies. After admission to the Scholars Plan and successful completion of the B.S. degree in Biology, the Biology Program Graduate Admissions committee will consider waiving the Graduate Record Examination (GRE) requirement for admission into the Biology Graduate Program.

Biology scholars plan application Requirements:

- Applicants may apply for admission to the program during their sophomore, junior or senior year in college.
- Applicants must declare themselves to be Biology majors immediately upon admission.
- Applicants must have completed a minimum of 12 credit hours in mathematics/science coursework at the lower level, including a minimum of eight credit hours in biology, and have a cumulative mathematics/science GPA of 3.5.
- Applicants must provide a letter of recommendation from a science faculty adviser familiar with the student's coursework.
- Applicants must interview with the Scholars Plan Admissions Committee.

After admission, successful continuation in the Scholars Plan will require students to:

- Maintain an overall GPA of 3.0 and Mathematics/Science GPA of 3.0. Failure to maintain these averages will result in a one-semester probation period during which the student must improve his/her cumulative GPA to 3.0, and their Mathematics/Science GPA to 3.0.
- Participate in a research project as an Independent Study course under the supervision of a graduate faculty adviser during the senior undergraduate year.
- Enroll in the Biology or Biotechnology Graduate Program upon completion of the requirements for the B.S. degree.
- Successfully complete a research project as an Independent Study or graduate thesis under the supervision of a graduate faculty adviser as part of their MS degree coursework.

Students who fail to meet any of these requirements will be dropped from the Scholars Plan, but may continue to pursue the B.S. or M.S. degree. Students who are dropped from the Scholars Program, but who wish to continue to pursue the M.S. degree, must meet the standard application requirements for admission to the Biology or Biotechnology Graduate Program.

At the completion of the requirements for each degree the student will be awarded the B.S. and M.S. degrees. A notation will be made on the student's transcript indicating they have completed the Biology Scholars Plan.

In the event a student is unable to complete the entire program of study, they are assured the B.S. degree in Biology upon completion of the requirements for that degree. In the event a student fails to complete the M.S. degree requirements, graduate level classes taken while in the program may be applied toward the B.S. degree.

Chemistry B.A.

The B.A. in Chemistry degree plan is designed for students who intend to apply for admission to professional (pharmacy, medical, veterinary, dental) schools or to work as school teachers. This degree plan gives students a solid foundation in chemistry while also leaving an ample number of semester credits hours for various elective courses (such as those required for pharmacy or medical schools). BA Chemistry students will also take a one-semester seminar course which will enhance their oral and written communication skills.

Although a participation in faculty-directed research is not a requirement for BA Chemistry students, such research is always encouraged and is supported through a Chemistry Departmental Research Grant from the Welch Foundation and endowments from Zeon Chemicals and Petrotex. UHCL chemistry faculty members are active in various fields of chemistry

(including biomedically and biologically relevant ones).

NB: this degree plan does not meet the American Chemical Society (ACS) certification requirements and thus is not recommended for students who plan to work in chemical or pharmaceutical industry or to pursue graduate studies in natural sciences.

Requirements

This degree requires 120 hours which includes 42 hours of University Core. However, some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy the University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
Choose two from list.	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	

Choose one from list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one from list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one from list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3

SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1

Major Requirements (46 Hours)

Major Requirements	
Required minimum for all Major Requirements is "C-."	
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 2123	Laboratory for Organic Chemistry I Credit Hours: 1
CHEM 2125	Laboratory for Organic Chemistry II Credit Hours: 1
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2325	Organic Chemistry II Credit Hours: 3
CHEM 3310	Advanced Chemical Calculations Credit Hours: 3
CHEM 3320	Survey of Physical Chemistry Credit Hours: 3
CHEM 4222	Laboratory for Physical Chemistry Credit Hours: 2
CHEM 4235	Advanced Lab for Inorganic Chemistry Credit Hours: 2
CHEM 4268	Lab for Instrumental Analysis Credit Hours: 2

CHEM 4274	Laboratory for Quantitative Chemical Analysis Credit Hours: 2
CHEM 4335	Inorganic Chemistry Credit Hours: 3
CHEM 4367	Instrumental Analysis Credit Hours: 3
CHEM 4372	Undergraduate Research I and Seminar Credit Hours: 3
CHEM 4373	Quantitative Chemical Analysis Credit Hours: 3
MATH 2413	Calculus I Credit Hours: 4
PHYS 1101	Laboratory for College Physics I Credit Hours: 1
PHYS 1102	Laboratory for College Physics II Credit Hours: 1
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
STAT 3308	Computational Statistics Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
Additional Information	
Students may take CHEM 4222 or CHEM 4235.	
Major Electives (31 hours)	
Students must complete at least 12 hours of the following CHEM courses with grades of "C-" or better.	
CHEM 4189	Independent Study in Chemistry Credit Hours: 1
CHEM 4222	Laboratory for Physical Chemistry Credit Hours: 2
CHEM 4242	Laboratory for Biochemistry Credit Hours: 2
CHEM 4312	Principles of Astrobiochemistry Credit Hours: 3
CHEM 4341	Biochemistry I Credit Hours: 3
CHEM 4359	Drug Discovery and Design Credit Hours: 3
CHEM 4363	Forensic Chemistry Credit Hours: 3

CHEM 4365	Introduction to Polymer Chemistry Credit Hours: 3
CHEM 4371	Advanced Spectroscopic Analysis Credit Hours: 3
CHEM 4368	Advanced Organic Chemistry Credit Hours: 3
CHEM 4376	Introduction to Petroleum Chemistry Credit Hours: 3
CHEM 4379	Undergraduate Research II Credit Hours: 3
CHEM 4389	Independent Study in Chemistry Credit Hours: 3
CHEM 4391	Selected Topics in Chemistry Credit Hours: 3
Required Electives (19 hours)	
Students must complete up to 19 hours of the following courses with grades of "C-" or better. These courses may be selected from the list below or other courses from list above, or as approved by the CHEM Program Chair. To ensure a good fit with student's career goals, a consultation with Chemistry Program Chair is strongly suggested.	
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
BIOL 3341	Molecular Genetics Credit Hours: 3
BIOL 3141	Laboratory for Molecular Genetics Credit Hours: 1
BIOL 3373	Human Anatomy Credit Hours: 3
BIOL 3173	Laboratory for Human Anatomy Credit Hours: 1
BIOL 4345	Human Physiology Credit Hours: 3

BIOL 4241	Laboratory for Physiology Credit Hours: 2
BIOL 4351	Molecular Biology Credit Hours: 3
BIOL 4361	Immunology Credit Hours: 3
BIOL 4332	Histology Credit Hours: 3
CHEM 4342	Biochemistry II Credit Hours: 3
ENSC 3332	Environmental Chemistry Credit Hours: 3
ENSC 4251	Laboratory for Environmental Analysis Credit Hours: 2
ENSC 4355	Environmental Sampling and Monitoring Credit Hours: 3

Chemistry B.S.

Plans in Chemistry lead to the bachelor of arts (B.A.) or bachelor of science (B.S.) degrees. The B.S. degree is designed to meet the needs of students planning careers as professional chemists and is recommended as preparation for graduate training or for a career in the chemical industry.

In 2015, the Chemistry Program completed an extensive evaluation and assessment and retained its accreditation by the American Chemical Society (ACS). The Chemistry Program continues to be on the ACS's list of approved chemistry programs nationwide. In addition to regular university degree, students may obtain an ACS-certified B.S. degree in chemistry if they complete the appropriate curriculum with a GPA of 3.3 or above. Students enrolled in Chemistry plans may choose courses in all traditional areas of Analytical, Inorganic, Organic and Physical Chemistry

and Biochemistry. Moreover, students are encouraged to further enhance their studies by undertaking research with one of the Chemistry faculty in any of these areas. In regard to such research, it should be noted that the Chemistry plan has received an endowment from the Welch Foundation in the form of a Chemistry Departmental Research Grant. This fund has been expended in support of the research efforts carried out by the plan's faculty during the training of students. The Chemistry plan also has an endowment from the Zeon Chemicals Company and Petrotex.

All chemistry courses taken at UHCL more than one year prior to being admitted to the Chemistry plan are subject to faculty review before being accepted for degree credit.

The B.S. degree is designed to meet the needs of students planning careers as professional chemists and is recommended as preparation for graduate training or for a career in the chemical industry.

Requirements

This degree requires 120 hours which includes 43 hours of University Core. University Core is listed separately in the catalog. However; some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3

WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
Choose two from the list.	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one from the list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government

	Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1

Major Requirements (68 Hours)

Major Requirements	
Required minimum for all Major Requirements is "C-".	
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 2123	Laboratory for Organic Chemistry I Credit Hours: 1

CHEM 2125	Laboratory for Organic Chemistry II Credit Hours: 1
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2325	Organic Chemistry II Credit Hours: 3
CHEM 3310	Advanced Chemical Calculations Credit Hours: 3
CHEM 4222	Laboratory for Physical Chemistry Credit Hours: 2
CHEM 4235	Advanced Lab for Inorganic Chemistry Credit Hours: 2
CHEM 4268	Lab for Instrumental Analysis Credit Hours: 2
CHEM 4274	Laboratory for Quantitative Chemical Analysis Credit Hours: 2
CHEM 4321	Physical Chemistry I Credit Hours: 3
CHEM 4322	Physical Chemistry II Credit Hours: 3
CHEM 4335	Inorganic Chemistry Credit Hours: 3
CHEM 4341	Biochemistry I Credit Hours: 3
CHEM 4365	Introduction to Polymer Chemistry Credit Hours: 3
CHEM 4367	Instrumental Analysis Credit Hours: 3
CHEM 4368	Advanced Organic Chemistry Credit Hours: 3
CHEM 4371	Advanced Spectroscopic Analysis Credit Hours: 3
CHEM 4372	Undergraduate Research I and Seminar Credit Hours: 3
CHEM 4373	Quantitative Chemical Analysis Credit Hours: 3
CHEM 4379	Undergraduate Research II Credit Hours: 3
MATH 2413	Calculus I Credit Hours: 4
MATH 2414	Calculus II Credit Hours: 4

PHYS 2125	Laboratory for University Physics I Credit Hours: 1
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
Chemistry Electives (10 hours)	
Must be selected from the approved list below, or other junior or senior (3000 or 4000) level Physical Science courses: ASTR, GEOL, PHYS, CHEM or other science or math courses approved by the faculty adviser. Required "C-" or better. No more than two courses in the same area. Courses in Biology (Cell & Molecular Biology, Anatomy, Genetics, Ecology), Psychology and Sociology required for MCAT and DAT tests will be accepted with faculty adviser approval.	
CHEM 3333	Environmental Chemistry Credit Hours: 3
CHEM 4189	Independent Study in Chemistry Credit Hours: 1
CHEM 4251	Laboratory for Environmental Analysis Credit Hours: 2
CHEM 4311	Chemical Origins Credit Hours: 3
CHEM 4312	Principles of Astrobiochemistry Credit Hours: 3
CHEM 4328	Introduction to Medicinal Chemistry Credit Hours: 3
CHEM 4342	Biochemistry II Credit Hours: 3
CHEM 4355	Environmental Sampling and Monitoring Credit Hours: 3
CHEM 4359	Drug Discovery and Design Credit Hours: 3
CHEM 4360	Bio-organic and Medicinal Chemistry Credit Hours: 3
CHEM 4363	Forensic Chemistry Credit Hours: 3
CHEM 4376	Introduction to Petroleum Chemistry Credit Hours: 3
CHEM 4389	Independent Study in Chemistry Credit Hours: 3

CHEM 4391

Selected Topics in Chemistry
Credit Hours: 3

Chemistry Scholars Plan - Linked B.S.-M.S. Degree Plans in Chemistry

The Chemistry Scholars Plan encourages highly motivated and qualified chemistry B.S. degree seeking students to obtain M.S. degree in Chemistry. Students in the plan may take up to four courses at the graduate level in their senior year if they have completed the required course prerequisites. These graduate credit hours may be applied toward either the B.S. or M.S. degree, but not both. Additionally, students in the Scholars Plan are expected to begin a graduate research project early in their studies. After admission to the Scholars Plan and successful completion of the B.S. degree in Chemistry, the Chemistry Program Graduate Admissions committee will waive the Graduate Record Examination (GRE) requirement for their admission into the Chemistry Graduate Program.

Chemistry scholars plan application
Requirements:

- Applicants may apply for admission to the program during their sophomore, junior or senior year at UHCL.
- Applicants must declare themselves to be Chemistry majors immediately upon admission.

- Applicants must have completed a minimum of 12 credit hours in mathematics/science coursework at the lower level, including a minimum of eight credit hours in chemistry, and have a cumulative mathematics/science GPA of 3.5.
- Applicants must interview with the Scholars Plan Admissions Committee.

After admission, successful continuation in the Scholars Plan will require students to:

- Maintain an overall GPA of 3.0 and mathematics/science GPA of 3.0. Failure to maintain these averages will result in a one-semester probation period during which the student must improve their cumulative GPA to 3.0 and their mathematics/science GPA to 3.0.
- Participate in a research project as an Independent Study course under the supervision of a graduate faculty adviser during the senior undergraduate year.
- Enroll in the Chemistry Graduate Program upon completion of the requirements for the B.S. degree.
- Successfully complete a research project as an Independent Study and CHEM 6837 and CHEM 6838 or graduate thesis under the supervision of a graduate faculty adviser as part of their MS degree coursework.

Students who fail to meet any of these requirements will be dropped from the Scholars Plan, but may continue to pursue the B.S. or M.S. degree in chemistry. Students who are dropped from the Scholars Program, but still wish to pursue the MS degree, must meet the standard application requirements for admission to the Chemistry Graduate Program.

At the completion of the requirements for each degree the student will be awarded both the B.S. and M.S. degrees in Chemistry. A notation will be made on the student's transcript indicating they have completed the Chemistry Scholars Plan.

In the event a student is unable to complete the entire program of study, s/he is assured the B.S. degree in Chemistry upon completion of the requirements for that degree. In the event a student fails to complete the M.S. degree requirements, graduate level classes taken while in the program may be applied toward the B.S. degree.

Communication B.A.

The undergraduate major in Communication leads to the Bachelor of Arts (B.A.) degree and is designed to prepare students for careers in corporate or mass communication. Communication majors are instructed in both written and visual communication. The major exposes students to a broad range of communication skills to reflect today's era of integrated media and includes credit-based internships to provide students with work experience in their desired fields.

A minimum of 120 semester hours of applicable college credits is required for the bachelor's degree in Communication; of these, a minimum of 48 credit hours must be at the upper level. Because degree plans are subject to change, all students should meet with their faculty advisers during their first semester at UHCL to sign a Candidate Plan of Study in order to

secure the degree plan in place at the time of their enrollment.

Entrance and Exit Requirements

Students in the Communication plan must take the Grammar-Spelling-Punctuation (GSP) test and score 70 or better before they may enroll in COMM 4061 or COMM 4379. Some courses in the Communication major require successful completion of the GSP test as a prerequisite. Students may take the GSP test up to 5 times, after which they will be ineligible to enroll in those courses and thus ineligible to complete the major. Students are also required to build a professional portfolio using a collection of their best written and graphic work as an exit requirement for the major.

For additional information about the GSP tutorial/test dates as well as advice regarding course recommendations and lower-level transfer requirements, please visit the [Communication program's website](#). In addition, the student organization Communication and Digital Media Association (CDMA) serves as a great networking opportunity for communication students.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3

MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	

Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3

SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (3 hours)

To earn a degree in communication, students must graduate with a GPA of 2.500 or better. A few courses require a grade of "C" or better, as noted below; a "C-" is not acceptable for these courses. All prerequisites are strictly enforced.

Core Requirements	
Advanced Writing must be passed with a grade of "C" or better.	
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (36 hours)

Courses	
Choose TWO courses from any 3300/4300 level ANTH, PHIL, PSYC, SOCIMedia Writing must be passed with a grade of "C" or better.	
ARTS 2371	Digital Photography Credit Hours: 3
COMM 1307	Introduction to Mass Communication Credit Hours: 3
COMM 3320	Principles of Public Relations Credit Hours: 3
COMM 3321	Media Writing Credit Hours: 3
COMM 3350	Visual Communication Credit Hours: 3
COMM 3352	Media Law Credit Hours: 3
COMM 4358	Publication Design

	Credit Hours: 3
Capstone Requirement (senior year: GSP must first be passed)	
In addition to the two capstone courses below students must take an additional 4300-level COMM course.	
COMM 4061	Communication Portfolio Credit Hours: 0
COMM 4379	Communication Internship Credit Hours: 3

Additional Information

Students will have the opportunity to integrate and demonstrate their mastery of communication skills as well as achieve key learning objectives by taking 6 hours of capstone credit. Passing the GSP test is a prerequisite to all capstone courses.

Communication Electives (18 hours)

Choose SIX courses from a designated list (3300/4300 level)

COMM 3340	Environmental Communication Credit Hours: 3
COMM 3341	Storytelling and Oral Communication Credit Hours: 3
COMM 3350	Visual Communication Credit Hours: 3
COMM 3351	Mass Media and Society Credit Hours: 3
COMM 3352	Media Law Credit Hours: 3
COMM 3353	Alternative Media Marketing Credit Hours: 3
COMM 3354	Gathering Information Credit Hours: 3
COMM 3355	Communication Ethics Credit Hours: 3
COMM 3356	Advertising Procedure Credit Hours: 3
COMM 3357	Crisis Communication Credit Hours: 3
COMM 3360	Web Design Credit Hours: 3
COMM 4301	Global Issues in Film Credit Hours: 3

COMM 4322	Public Relations Writing Credit Hours: 3
COMM 4323	Public Relations Campaigns Credit Hours: 3
COMM 4350	3D Computer Modeling Credit Hours: 3
COMM 4351	3D Animation Credit Hours: 3
COMM 4352	Photojournalism Credit Hours: 3
COMM 4354	Video Production I Credit Hours: 3
COMM 4355	Narrative Video Production Credit Hours: 3
COMM 4357	Documentary Video Production Credit Hours: 3
COMM 4359	Studio-Based Video Production Credit Hours: 3
COMM 4389	Independent Study in Communication Credit Hours: 3
COMM 4391	Selected Topics in Communication Credit Hours: 3
ARTS 3360	Graphic Design Credit Hours: 3
ARTS 4348	Information Design Credit Hours: 3
ARTS 4350	Advanced Traditional Photography Credit Hours: 3
ARTS 4351	Advanced Digital Photography Credit Hours: 3
ARTS 4352	Video Arts Credit Hours: 3
ARTS 4363	Advertising Design Credit Hours: 3
ARTS 4368	Graphic Novel Design Credit Hours: 3
ARTS 4369	Digital Illustration Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
MKTG 3331	Integrated Marketing Communications
WRIT 3312	Written Communications in Business Credit Hours: 3

WRIT 3315	Advanced Technical Writing Credit Hours: 3
Electives (24 hours)	
Students may take any course as an elective, including communication courses not taken to meet major requirements.	

Computer Engineering B.S.

The plan in Computer Engineering leads to the bachelor of science (B.S.) degree. This engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org> and emphasizes the study of large and small computer systems for industrial, scientific and business applications. Computer hardware and software concepts, along with engineering-level mathematics, prepare students for jobs in computer-based industries as well as for admission into the graduate plan in Computer Engineering or related fields.

The mission of the Computer Engineering program is to provide students instruction in the pragmatic application of core knowledge by which they can specify, design and develop large and small computer systems for industrial and scientific purposes. Students get hands-on experience in digital system design, microprocessor and embedded system, communication and network and robotics. The culminating experience for a student in this plan is CENG 4265/CENG 4266 Senior Projects.

Program Educational Objectives

The Program Educational Objectives (PEO) of the Computer Engineering program are defined as what graduates are expected to attain within a few years after graduation and are as follows:

- Computer Engineering graduates will have gainful employment in industry, government or academia.
- Computer Engineering graduates will have assumed additional responsibilities at their place of employment greater than those normally evidence by entry-level engineers.
- Computer Engineering graduates that choose to pursue higher education opportunities or certificate programs have been accepted and are on track for a timely graduation.
- Computer Engineering graduates participate in and are considered valuable resources in their service to the community.
- Computer Engineering graduates engage and take leading roles in life-long learning opportunities.

Scholastic Performance Requirements

The UHCL graduation requirements stipulate that a student must achieve an overall minimum grade point average (GPA) of 2.0. The Computer Engineering program imposes additional requirements for students to be accepted into, and progress through, the upper-level Computer Engineering curriculum. In order to file for an undergraduate degree plan with Computer Engineering Program, students should have declared Computer Engineering as a major and have completed at least 41 total credit hours. These 41 credit hours must include the following courses completed with a grade of C- or better and a cumulative GPA of 2.5 or higher: CSCI 1320, CSCI 2305, PHYS 2325 and lab, PHYS 2326 and lab, MATH 2413, MATH 2414, MATH 2305 and WRIT 1301.

Students may enroll in upper-level Computer Engineering or Computer Science courses after successfully filing their degree plan. The above listed courses may not be attempted more than twice without consulting an assigned faculty adviser.

Requirements

This degree requires 129 hours and includes 42 hours of University Core. However; some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted. Up to 3 credit hours of combined internship and co-op can be used as an elective with approval of the program.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3

LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
COMM 1315	Public Speaking Credit Hours: 3

PSYC 1100	Learning Frameworks Credit Hours: 1
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
PHYS 2126	Laboratory for University Physics II Credit Hours: 1

Major Requirements (78 Hours)

Required minimum for all Major Requirements is "C-."

Major Requirements (78 hours)	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
PHYS 2326	University Physics II Credit Hours: 3
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
MATH 2413	Calculus I Credit Hours: 4
MATH 2414	Calculus II Credit Hours: 4
MATH 2315	Calculus III Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3
MATH 2305	Discrete Mathematics Credit Hours: 3
STAT 3334	Probability and Statistics for Scientists and Engineers Credit Hours: 3
CSCI 1320	C Programming Credit Hours: 3
CSCI 2305	Data Structures for Science and Engineering Credit Hours: 3

CENG 2312	Digital Circuits Credit Hours: 3
CENG 2112	Laboratory for Digital Circuits Credit Hours: 1
CENG 3313	Linear Circuits Credit Hours: 3
CENG 3113	Laboratory for Linear Circuits Credit Hours: 1
CENG 3316	Electronics Credit Hours: 3
CENG 3116	Laboratory for Electronics Credit Hours: 1
CENG 3331	Introduction to Telecommunications and Networks Credit Hours: 3
CENG 3131	Laboratory for Telecommunications and Networks Credit Hours: 1
CENG 3351	Computer Architecture Credit Hours: 3
CENG 3151	Laboratory for Computer Architecture Credit Hours: 1
CENG 3264	Engineering Design and Project Management Credit Hours: 2
CENG 2371	Microcontroller Programming Credit Hours: 3
CENG 4313	Microprocessor Interfacing Credit Hours: 3
CENG 4113	Laboratory for Microprocessor Interfacing Credit Hours: 1
CENG 4331	Analysis and Design of Linear Systems Credit Hours: 3
CENG 4354	Digital System Design Credit Hours: 3
CENG 4265	Senior Project Credit Hours: 2
CENG 4266	Senior Project Credit Hours: 2
SENG 4310	Introduction to Systems Engineering Credit Hours: 3
SWEN 4342	Software Engineering Credit Hours: 3

WRIT 3315

Advanced Technical Writing
Credit Hours: 3

Elective Requirements (9 hours)

Required minimum for all Elective Requirements is "C-".

Major Electives (9 hours)

9 hours of approved upper level CENG/CSCI are required. CENG Students may not use CSCI 3303, 3311, 3331, 4303 or 4307 as electives.

Computer Engineering Dual Degree Program

The Dual Degree Program in Computer Engineering (CENG) at University of Houston-Clear Lake (UHCL) is developed for high-performing CENG undergraduate students who would like to continue their graduate study in CENG M.S. program immediately upon completion of the B.S. degree. Students accepted into this program can take up to six graduate credit hours that are applied to both undergraduate and graduate degrees. One major goal of this new program is to build a pathway for our CENG undergraduate students to enter the graduate CENG degree plan at several points in their undergraduate study and complete it in a more affordable way.

Students may pursue either thesis or extended coursework M.S. degree completion options. This dual degree program requires 153 credit hours for master's thesis option and 156 credit hours for extended coursework option. The plan offers 123 hours of coursework at the undergraduate level. At the graduate level, it offers 30 hours of graduate hours for master's thesis option

and 33-credit hours for extended coursework option. Currently, ABET-accredited CENG BS program requires 129 credit hours including 9-hour electives. The students accepted into this program take 6-hour graduate credit as their 6-hour of 9-hour electives.

The graduate courses must be approved prior to enrollment. The graduate courses should provide a good substitution for the undergraduate courses required in the undergraduate program. Students may begin taking graduate courses after completing 100 credit hours including transfer credits that count towards CENG B.S. degree. GRE score is not required for the application.

Eligibility and Application: Interested students should submit a CENG Dual Degree Program Application Form to the program chair.

Minimum eligibility requirements are as follows: (1) Junior or Senior standing and at least 20 credit hours of CENG and CSCI course work completed, (2) 3.0/4 grade point average over all UHCL course work, (3) 3.0/4 grade point average over all CENG and CSCI course work.

Admission to the Graduate Program: Acceptance into the dual degree program does not constitute automatic admission to the graduate program. Completion of the B.S. degree and the standard admission requirements for the graduate degree program apply.

Performance Requirements While in the Program: A committee of CENG faculty members monitors the progress of students participating in this program. After a student is accepted into this program, if the student's cumulative UHCL GPA falls below 3.0/4, the student will be

on probation. The probation will be lifted once the cumulative GPA again rises to 3.0. If the student's cumulative UHCL GPA falls below 3.0 for two consecutive semesters, the student will automatically be transferred to the regular BS program. The UHCL graduate GPA requirement of 3.0 or higher continues to be operational for all students in this plan.

Granting of Degrees: Students in dual degree programs receive the Bachelor's degree upon completion of the Master's degree. Students in dual degree programs not completing the Master's degree may apply for graduation with the bachelor's degree. Dual degree program students must complete the undergraduate residency requirements.

Computer Information Systems B.S.

The plan in Computer Information Systems (CIS) leads to a bachelor of science (B.S.) degree. This plan prepares students to hold technical, administrative and managerial positions in the analysis, design, implementation, maintenance, operation and management. The curriculum is based on a broad general education and upper-level studies in areas related to information systems such as management, accounting, information technology, and computer science.

The mission of the Computer Information Systems program is to cultivate students to become effective problem solvers who can devise and implement information systems

based solutions based on solid understanding of technology.

Program Educational Objectives

The Program Educational Objectives of the Computer Information Systems (CIS) program strike a balance between theory and practice of computer science and computer information systems. This balance satisfies both regional and national needs. Graduates of the CIS program are equipped with sound technical knowledge and skills, and an understanding of Information Systems in a business/organization setting. They are provided a broad education to attain productive employment, prepare them for success in further studies, and continue lifelong learning. Specifically, we want students engaged in professional practice, professional growth, and professional conduct.

Professional Practice

Graduates will be highly proficient in computer information systems in various capacities, including, but not limited to, software developer, systems analyst, business analyst, technology consultant, and information systems manager.

Professional Growth

Graduates will demonstrate continuous career improvement, evidenced by increasing responsibility and leadership, participation in further studies, or transition into other technical or professional careers. Associated skills include initiative, innovation, creativity, effective communication, and teamwork.

Professional Conduct

Graduates will possess an awareness of the social and ethical implications of their work and their behavior. The CIS program at the University of Houston-Clear Lake is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

Requirements

This degree requires 120 hours and includes 42 hours of University Core. However; some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3
Life and Physical Sciences (6 hours)	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3

BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child

	Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ECON 2302	Principles of Microeconomics Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (65 Hours)

Required minimum grade for all Major Requirements is "C-".

Major Requirements (65 hours)	
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
CINF 1370	Introduction to Computer Information Systems Credit Hours: 3
CINF 3321	Information Systems Theory and Practice Credit Hours: 3
CINF 3331	Business Data Communications Credit Hours: 3
CINF 4320	Web Application Development Credit Hours: 3
CINF 4321	Enterprise Resource Planning Systems Credit Hours: 3

CINF 4324	Modern System Analysis and Design Credit Hours: 3
CINF 4364	Computer Systems Administration Credit Hours: 3
CINF 4388	Senior Project in Computer Information Systems Credit Hours: 3
CSCI 1470	Computer Science I Credit Hours: 4
CSCI 1471	Computer Science II Credit Hours: 4
CSCI 2315	Data Structures Credit Hours: 3
CSCI 4333	Design of Database Systems Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3
MATH 2305	Discrete Mathematics Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
STAT 3308	Computational Statistics Credit Hours: 3
SWEN 4342	Software Engineering Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
Additional Major Requirements	
Choose one	
ITEC 4342	Information Technology Project Management Credit Hours: 3
ITEC 4313	Emerging Information Technology Credit Hours: 3

Elective Requirements (13 hours)

Elective Requirements (13 hours)	
6 hours of 3000 or 4000 level Approved Business electives, excluding ISAM 6 hours of 3000 or 4000 level Approved CINF/CSCI electives 4 hours of 3000 or 4000 level Approved CINF/CSCI/ITEC electives	
Computer Systems and Security Specialization	
Students interested in Computer Systems and Security should consider the following as electives:	
CSCI 4312	Network Protocols Credit Hours: 3
CSCI 4354	Operating Systems Credit Hours: 3
CINF 4323	Computer Security Credit Hours: 3

Computer Information Systems B.S./M.S. Dual Degree Program

The Computer Information Systems (CIS) program currently offers B.S. and M.S. degrees in the Department of Computing Sciences at the College of Science and Engineering (CSE) at University of Houston-Clear Lake (UHCL). The CIS undergraduate program is ABET-accredited. The dual degree CIS program is designed for high-performing CIS undergraduate students who would like to pursue M.S. degree in CIS at UHCL. For students who are accepted into this program, up to six graduate credit hours can count toward both undergraduate and graduate degrees. The overall objective of this initiative is to provide the qualified CIS undergraduate students a fast track to a M.S. degree.

Number of credit hours for degree completion:

This dual degree program allows students to earn degrees at an accelerated pace by allowing up to six credit hours count toward both undergraduate and graduate degrees. For CIS, a total of 152 credit hours is required by the program for both the extended coursework option and the thesis option.

In this program, undergraduates with 90 or more credit hours may take up to six graduate credit hours toward their Bachelor's degree. The same six graduate credit hours may also count towards a Master's degree.

Graduate courses utilized for a Bachelor's degree cannot be utilized for a graduate degree outside of the accelerated Bachelor's to Master's degree program. No more than six graduate hours can be taken as an undergraduate.

Program participant performance monitoring: After a student is admitted to the program, his/her academic performance will be closely monitored. If a student's cumulative UHCL GPA falls below 3.0/4.0, the student will be put on probation. The probation will be lifted if the student manages to increase the GPA back to 3.0/4.0. If a student fails to reach the 3.0/4.0 GPA requirement for two consecutive semesters, he/she will be automatically transferred to the regular B.S. program. The general 3.0 GPA or higher requirement for all UHCL graduate students remain effective throughout the program.

A student who becomes ineligible to participate in or withdraws from the program cannot double count any courses for both Bachelor's and Master's degrees. However, courses successfully completed with a 3.0 or better may count

toward the Bachelor's degree as appropriate substitutions.

Degree granting process:

Students in dual degree programs receive the Bachelor's degree upon completion of the master's degree.

Students in dual degree programs not completing the Master's degree may apply for graduation with the bachelor's degree.

Dual degree program students must complete the undergraduate residency requirements.

Requirements

Eligibility Requirements

Students must apply to the dual degree program the semester before completing their Bachelor's degree requirements. Interested students should submit a "CIS Dual Degree Program" application form to CIS program chair or his/her designee while meeting all of the following criteria: Junior, or Senior standing and at least 20 credit hours of CINF and CSCI course work completed; Overall GPA of 3.0 or better; 3.0 or above GPA on all CINF and CSCI course work. Students interested in this program must meet with a dual degree adviser in our college before enrolling in graduate courses.

Additional Information

GRE score is not required for the application.

Computer Science B.S.

The plan in Computer Science (CS) leads to a bachelor of science (B.S.) degree. This plan emphasizes the development of the skills and analytical abilities necessary to specify, design and develop computer-based solutions to complex systems problems. Students receive extensive instruction in software and hardware principles; in scientific, industrial and commercial applications; and in the supporting mathematical tools. The curriculum allows students to develop a broad background in computer science areas relating to system and application software development.

The mission of the undergraduate Computer Science program is to prepare students for productive careers in computing by providing an excellent and diverse environment for learning, research, and practice of computing theories, computer applications and software development.

Program Educational Objectives

The Program Educational Objectives of the Computer Science (CS) program strike a balance between theory and practice of computer science. Graduates of the CS program are equipped with sound technical knowledge and skills, and strong computer science fundamentals. They are provided a broad education to attain productive employment, prepare them for success in further studies, and continue lifelong learning. Specifically, we want students engaged in:

Professional Practice

Graduates will be highly proficient in computer science in various capacities, including, but not limited to, programmer, systems analyst, technical consultant, researcher, and project manager.

Professional Growth

Graduates will demonstrate continuous career improvement, evidenced by increasing responsibility and leadership, participation in further studies, or transition into other technical or professional careers. Associated skills include initiative, innovation, creativity, effective communication, and teamwork.

Professional Conduct

Graduates will possess an awareness of the social and ethical implications of their work and their behavior. The Computer Science program at the University of Houston-Clear Lake is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

Scholastic Performance Requirements for Computer Science Undergraduates

The UHCL graduation requirements stipulate that a student must achieve an overall minimum grade point average (GPA) of 2.0. The Computer Science program imposes additional requirements for students to be accepted into, and progress through, the upper-level Computer Science curriculum. The courses listed below (or equivalent courses as approved by the departmental academic adviser) are considered the Lower-Level Core (LLC) for Computer Science and must be completed with a grade of C- or better and a cumulative GPA of 2.5 or higher:

CSCI 1470, CSCI 1471, CSCI 2315, PHYS 2325 and lab, PHYS 2326 and lab, MATH 2413, MATH 2414, MATH 2305 and WRIT 1301.

Students may enroll in upper-level (3000-level) Computer Science or Computer Engineering courses after successfully completing the Computer Science LLC. Admission to upper-level status will be granted to students who successfully complete the Computer Science LLC courses during their freshman or sophomore years and have an overall UHCL GPA of 2.5 or higher. No LLC course may be attempted more than two times without consulting an assigned faculty adviser.

Requirements

This degree requires 122 hours and includes 42 hours of University Core. However, some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3

ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
PHYS 2126	Laboratory for University Physics II Credit Hours: 1

Major Requirements (64 hours)

Required minimum for all Major Requirements is "C-."

Major Requirements	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
PHYS 2326	University Physics II Credit Hours: 3
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
MATH 2305	Discrete Mathematics Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2413	Calculus I Credit Hours: 4
MATH 2414	Calculus II Credit Hours: 4
STAT 3334	Probability and Statistics for Scientists and Engineers Credit Hours: 3
CSCI 1470	Computer Science I Credit Hours: 4
CSCI 1471	Computer Science II Credit Hours: 4
CSCI 2315	Data Structures Credit Hours: 3
CSCI 2331	Computer Organization and Assembly Language Credit Hours: 3
CSCI 3352	Advanced Data Structures and Algorithms Credit Hours: 3
CSCI 4333	Design of Database Systems Credit Hours: 3
CSCI 4354	Operating Systems Credit Hours: 3

CSCI 4355	Programming Language Concepts Credit Hours: 3
CSCI 4388	Senior Project in Computer Science Credit Hours: 3
CENG 2312	Digital Circuits Credit Hours: 3
CENG 2112	Laboratory for Digital Circuits Credit Hours: 1
CENG 3331	Introduction to Telecommunications and Networks Credit Hours: 3
CENG 3131	Laboratory for Telecommunications and Networks Credit Hours: 1
CENG 3351	Computer Architecture Credit Hours: 3
CENG 3151	Laboratory for Computer Architecture Credit Hours: 1
SWEN 4342	Software Engineering Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3

Elective Requirements (15 hours)

Electives

Choose from CSCI/CINF Approved upper-level electives. CSCI 3311 (Programming with Visual Basic) and CSCI 3303 (Fundamentals of Programming) will not count as approved electives.

Computer Science B.S./M.S. Dual Degree Program

The Computer Science (CS) program currently offers B.S. and M.S. degrees in the Department of Computing Sciences at the College of Science and Engineering (CSE) at University of Houston-Clear Lake (UHCL). The CS undergraduate program is ABET accredited. Additionally, we offer the option for a dual degree CS program for high-performing CS undergraduate students

who would like to pursue M.S. degree in CS at UHCL. For students who are accepted into this program, up to six graduate credit hours can count toward both undergraduate and graduate degrees. The overall objective of this initiative is to provide the qualified CS undergraduate students a fast track to a M.S. degree.

Students may apply for the dual degree program at any point in the first 80 hours of their Candidate Plan of Study, but must have completed 20 credits hours at UHCL. After completion of course requirements of the regular BS degree which may include no more than two graduate courses, students will then be granted graduate standing. Students in the Dual Degree program are not required to take the GRE. Students in dual degree programs receive the Bachelor's degree upon completion of the Master's degree. Students in dual degree programs not completing the Master's degree may apply for graduation with the bachelor's degree. Dual degree program students must complete the undergraduate residency requirements.

If a student's cumulative UHCL GPA falls below 3.0, the student will be on probation. Probation will be lifted once the cumulative UHCL GPA again rises to 3.0. If a student's cumulative UHCL GPA falls below 3.0 for two consecutive semesters, the student will automatically be transferred to the regular BS program.

Requirement

Eligibility Requirements

The UHCL graduate GPA requirement of 3.0 or higher continues to be operational for all students in this plan. The Dual Degree program consists of 152 credit hours, offering the full 122 undergraduate hours of coursework which is ABET accredited and 30 hours of graduate hours required by THECB.

Criminal Justice and Criminology B.S.

The undergraduate major in Criminal Justice and Criminology leads to the Bachelor of Science (B.S.) degree. The academic goal of the major is to provide students with an understanding of crime: why it occurs, how it is measured, and how it might be controlled. An additional goal is to help students develop the skills needed to obtain successful career opportunities within the criminal justice system or to advance in their current careers.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3

BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	

Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (3 hours)

48 hours of upper-level credit must be "C" or better.

Core Requirement (3 hours)	
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (48 hours)

Courses	
THREE upper-level CRIM electives are also required. From the list of courses below, only one PSYC or SOCI course may be selected.	
ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
CRIM 3312	Criminology Credit Hours: 3
CRIM 4313	Juvenile Delinquency Credit Hours: 3
CRIM 4331	Corrections Credit Hours: 3
CRIM 4334	Criminal Law Credit Hours: 3
CRIM 4335	Race and Justice Credit Hours: 3
CRIM 4338	Policing and Society Credit Hours: 3
CRIM 4384	Statistics Credit Hours: 3
CRIM 4385	Research Methods Credit Hours: 3
CRIM 4390	Contemporary Issues in Criminology Credit Hours: 3
Elective Requirements	
Up to 15 hours could be lower-level electives (any 1300/2300 level courses) and of these 12 hours must be upper-level (any 3300/4300 level courses)	

Early Childhood Care and Education B.S.

The Bachelor of Science in Early Childhood Care and Education is a 120 credit hour degree program whose coursework emphasizes children from birth through age five, although several courses will cover children's learning through the primary grades to meet the needs of persons who also work with the school-age population within their programs and to meet National Association for the Education of Young Children (NAEYC) Teacher Education Accreditation requirements.

Course content will focus on teaching diverse learners, curriculum and assessment, instructional strategies, child development, family and community relations and leadership skills. It will include multiple opportunities for firsthand field-based experiences and will be based on the NAEYC standards.

University Core Requirements (42 hours):

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE course from the UHCL core approved list.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3

MATH 1332	Contemporary Mathematics Credit Hours: 3
MATH 1342	Elementary Statistical Methods Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
MATH 2413	Calculus I Credit Hours: 4
Life and Physical Sciences (6 hours)	
Choose TWO courses from the UHCL core approved list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3

PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE course from the UHCL core approved list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE course from the UHCL core approved list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose ONE course from the UHCL approved core list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3

ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (63 hours):

ECED 1303	Children and Families Credit Hours: 3
ECED 1311	Historical and Recent Trends in Early Childhood Education Credit Hours: 3
ECED 1318	Nutrition, Health and Safety Credit Hours: 3
ECED 1354	Developmental Theories of Young Children Credit Hours: 3
ECED 4303	Child Guidance and Classroom Management for Young Children Credit Hours: 3
ECED 4305	Literacy Development Birth-Age 5 Credit Hours: 3
ECED 4306	Assessment of Young Children Birth-Age 5 Credit Hours: 3
ECED 4307	Mathematics and Science in Early Childhood Education Credit Hours: 3
ECED 4308	Creativity in Early Childhood Credit Hours: 3
ECED 4309	Advocacy and Parent Engagement Credit Hours: 3

ECED 4320	Play in Early Childhood Curriculum Credit Hours: 3
ECED 4321	Advanced Topics: Infants and Toddlers Credit Hours: 3
ECED 4322	Cultural Awareness for Young Children Credit Hours: 3
ECED 4323	Advanced Topics: Preschool Curriculum Credit Hours: 3
ECED 4324	Early Childhood Leadership, Program Development, and Management Credit Hours: 3
ECED 4326	Effective and Positive Classroom Interactions for Young Children Credit Hours: 3
ECED 4332	Teaching Young Children with Special Needs Credit Hours: 3
ECED 4377	Practicum Credit Hours: 3
LLLS 4348	Selecting Literature for the Very Young Child Credit Hours: 3
SILC 4318	Linguistic Diversity in Young Children Credit Hours: 3
Choose ONE of the following	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Elective Requirements (15 hours):

Students can choose to complete an approved University minor OR complete 15 hours of electives from the list:	
ARTS 2379	Arts and the Child Credit Hours: 3
ECED 4325	Early Childhood Program Development & Management I - Leadership Strategies and Staff Development Credit Hours: 3

ECED 4333	Advanced Studies in Young Children with Special Needs Credit Hours: 3
HLTH 3301	Health, Emergency Care and First Aid Credit Hours: 3
HLTH 3303	Nutrition and Weight Management Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 3313	Organizational Communication Credit Hours: 3
PSYC 4314	Child Psychology Credit Hours: 3
SILC 4313	Language Learning Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
WGST 4348	Development of Gender and Racial Identity Credit Hours: 3

General Degree Requirements:

- Students must complete at least 120 semester credit hours. A minimum of 45 hours of the 120 semester hours must be advanced (3000-4000 level) course work according to the requirements of the respective major.
- Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements in the UHCL catalog).

- Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - Six hours of U.S. History (three hours may be Texas History).
 - Six hours of Constitutions of the United States and Texas.
- Students must demonstrate writing proficiency by completing nine hours of lower-level (1000-2000 level) and upper-level (3000-4000 level) English composition course credit with a minimum grade of "C-" or better. Some majors may require higher grades in English composition.
- Students must complete at least 25% of the credit hours required for the degree (i.e., 30 semester credit hours for a 120 credit hour program) through instruction offered by UHCL to fulfill the Southern Association of Colleges and Schools (SACS) residency requirements.
- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework in the major in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Environmental Management B.S.

The degree in Environmental Management leads to the Bachelor of Science. The objective of the plan is to prepare students for positions involving the management of natural resources in a variety of public and private settings.

Students who pursue this degree program must complete at least one course (three hours) in general chemistry. A minimum of 51 upper-level (33XX and 43XX) and a total of 120 hours are required for the baccalaureate degree in Environmental Management.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Additional Information Grades must be C- or better.	
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
CHEM 1311	General Chemistry I Credit Hours: 3
Choose an additional course from the following:	
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
GEOL 1303	Physical Geology

	Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
Additional Information Any other courses require faculty approval.	
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours) Choose one course from the approved list:	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3

ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (18 hours)

The following courses, or their approved equivalents.

Core Requirements (18 hours)	
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II - Managerial Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
Additional Information	
<ul style="list-style-type: none"> ACCT 2301 and/or ACCT 2302 can be substituted with additional natural science. ECON 2301 also satisfies Social/Behavior Science. When ECON 2301 is used to satisfy the social Behavioral Science Requirement, an additional elective will be needed. MATH 1324 can be substituted with MATH 1325, MATH 2412 or Math 2413. 	

Major Requirements (45 hours)

All courses within the Major Requirements must be completed with a grade of C- or better. A minimum cumulative GPA of 2.0 or higher is required to graduate.

Major Requirements (27 hours)	
DSCI 3321	Statistics I Credit Hours: 3
ENVR 3311	Foundations of Environmental Management Credit Hours: 3
ENVR 4313	Techniques of Environmental Assessment Credit Hours: 3
ENVR 4315	Introduction to Environmental Law Credit Hours: 3
ENVR 4332	The Process of Environmental Permitting Credit Hours: 3
ENVR 4333	Introduction to Pollution Control Technology Credit Hours: 3
ENVR 4336	Administrative Practice and Ethical Issues Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
Additional Information	
STAT 3308 -- Computational Statistics can be substituted with DSCI 3321	
Select two of the following courses (6 hours):	
ENVR 4311	Principles of Air Quality Management Credit Hours: 3
ENVR 4312	Water Management Principles Credit Hours: 3
ENVR 4317	Solid Waste Management Practices Credit Hours: 3
ENVR 4391	Selected Topics in Environmental Management Credit Hours: 3
Additional Information	
<ul style="list-style-type: none"> MGMT 4312 Capstone course -- requires permission. 	

• ENVR 4391--Special Topics Courses. Topic must be approved by faculty coordinator.

Select two of the following courses (6 hours):

GEOG 4301	Urban Geography Credit Hours: 3
GEOG 4312	Human Geography Credit Hours: 3
LEGL 3351	Legal Research Credit Hours: 3
LEGL 4353	Dispute Resolution Credit Hours: 3
MGMT 3313	Organizational Communication Credit Hours: 3
MGMT 3331	Human Resource Management Credit Hours: 3
MGMT 4326	Effective Negotiations Credit Hours: 3
MGMT 4327	Leadership Credit Hours: 3
MGMT 4353	International Business Management Credit Hours: 3
MGMT 4354	Organizational Behavior Theory and Application Credit Hours: 3

Select two of the following courses (6 hours):

BIOL 3311	Marine Biology Credit Hours: 3
BIOL 3333	Environmental Biology Credit Hours: 3
BIOL 3335	Epidemiology Credit Hours: 3
BIOL 3373	Human Anatomy Credit Hours: 3
BIOL 4311	Ecology Credit Hours: 3
BIOL 4313	Biology of Fishes Credit Hours: 3
CHEM 3333	Environmental Chemistry Credit Hours: 3
CHEM 4355	Environmental Sampling and Monitoring Credit Hours: 3
CHEM 4356	Soil & Groundwater Remediation Credit Hours: 3

GEOG 4321	Fundamentals of Geographic Information Systems Credit Hours: 3
GEOL 4327	Natural Disasters Credit Hours: 3

Additional Information

Any other courses require faculty approval.

Elective Requirements (15 hours)

ENVR Elective (3 hours)

33XX or 43XX ENVR course not already taken.

General Electives (3 hours)

33XX or 43XX courses offered by Colleges of Business, Human Sciences & Humanities, Science & Computer or Education.

Open Electives (9 hours)

Same as General Elective EXCEPT these courses can be lower-level or upper-level.

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Environmental Science B.S.

The plan in Environmental Science leads to the bachelor of science (B.S.) degree. This plan seeks through an interdisciplinary approach to prepare students for opportunities in the private sector and in governmental agencies where environmental issues are being addressed. Graduates of the plan will also be prepared to pursue further academic training in Environmental Science.

Students must specialize in one of the following areas:

- Environmental Biology
- Environmental Chemistry
- Environmental Geology
- Physical Geology

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	

CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (36 Hours)

The following courses must be completed with the grade of "C-" or better:

Major Requirements	
WRIT 3315	Advanced Technical Writing Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2123	Laboratory for Organic Chemistry I Credit Hours: 1
ENSC 2230	Environmental Science Seminar I Credit Hours: 2
ENSC 3331	Environmental Biology Credit Hours: 3
ENSC 3332	Environmental Chemistry Credit Hours: 3
ENSC 3333	Environmental Geology Credit Hours: 3
ENSC 4130	Environmental Science Seminar II Credit Hours: 1
ENSC 4332	Advanced Environmental Science Credit Hours: 3
MATH 2413	Calculus I Credit Hours: 4
PHYS 1301	College Physics I Credit Hours: 3

PHYS 1101	Laboratory for College Physics I Credit Hours: 1
PHYS 1302	College Physics II Credit Hours: 3
PHYS 1102	Laboratory for College Physics II Credit Hours: 1
STAT 3308	Computational Statistics Credit Hours: 3

Research or practical experience. Select one of the following courses. Requires faculty approval

ENSC 4315	Environmental Science Practicum Credit Hours: 3
ENSC 4379	Internship in Environmental Science Credit Hours: 3
ENSC 4389	Independent Study in Environmental Science Credit Hours: 3

Specialization Requirements (42 Hours)

Specialization requirements and approved upper-level electives must total 42 hours and must be completed with a grade of "C-" or better. Specialization electives are junior/senior level or related classes and must be selected from the list of approved electives for each specialization. Other electives may be selected in consultation with a faculty mentor and shall be completed with grades of "C-" or better.

In all cases, prerequisites for each course must be satisfied. A maximum of six hours of Environmental Management (ENVR) courses may be included.

Environmental Biology Specialization (26 hours)

BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1307	Biology for Science Majors II Credit Hours: 3

BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
BIOL 4311	Ecology Credit Hours: 3
BIOL 4323	Field Biology Credit Hours: 3
ENSC 4251	Laboratory for Environmental Analysis Credit Hours: 2
ENSC 4325	Environmental Toxicology Credit Hours: 3
ENSC 4355	Environmental Sampling and Monitoring Credit Hours: 3
Additional Environmental Biology Specialization Courses (4 hours)	
Choose one of the following groups.	
Group 1	
BIOL 2428	Vertebrate Zoology Credit Hours: 4
Group 2	
BIOL 3313	Plant Anatomy Credit Hours: 3
BIOL 3113	Laboratory for Plant Anatomy Credit Hours: 1
Group 3	
BIOL 4313	Biology of Fishes Credit Hours: 3
BIOL 4113	Laboratory for Biology of Fishes Credit Hours: 1
Additional Environmental Biology Specialization Courses: Physiology (3 hours)	
Choose one of the following courses.	
BIOL 4343	Plant Physiology Credit Hours: 3
BIOL 4344	Comparative Animal Physiology Credit Hours: 3
Environmental Biology Specialization Electives	
Select 16 hours of specialization electives	

BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
BIOL 3311	Marine Biology Credit Hours: 3
BIOL 3316	Introduction to Herpetology Credit Hours: 3
BIOL 4211	Laboratory for Ecology Credit Hours: 2
BIOL 4305	Ecology of the Amazon Credit Hours: 3
BIOL 4327	Plant Identification Credit Hours: 3
BIOL 4334	Environmental Microbiology Credit Hours: 3
CHEM 4356	Soil & Groundwater Remediation Credit Hours: 3
ENSC 3301	Energy and the Environment Credit Hours: 3
ENSC 3307	Geographic Information Systems Credit Hours: 3
ENSC 4225	Environmental Toxicology Laboratory Credit Hours: 2
ENSC 4323	Soils in the Environment Credit Hours: 3
ENSC 4331	Introduction to Environmental Engineering Credit Hours: 3
ENSC 4333	Introduction to Global Climate Change Credit Hours: 3
ENSC 4335	Applied GIS Credit Hours: 3
ENSC 4351	Hydrogeology Credit Hours: 3
ENSC 4352	Water Chemistry and Water Pollution Credit Hours: 3
ENSC 4389	Independent Study in Environmental Science Credit Hours: 3
ENSC 4391	Topics in Environmental Science Credit Hours: 3
GEOL 4326	Oceanography Credit Hours: 3

GEOL 4327	Natural Disasters Credit Hours: 3
ENVR 4315	Introduction to Environmental Law Credit Hours: 3
Additional Information	
Prerequisites and corequisites must be met as required.	
Environmental Chemistry Specialization (32 hours)	
CHEM 2325	Organic Chemistry II Credit Hours: 3
CHEM 2125	Laboratory for Organic Chemistry II Credit Hours: 1
CHEM 3320	Survey of Physical Chemistry Credit Hours: 3
CHEM 4268	Lab for Instrumental Analysis Credit Hours: 2
CHEM 4367	Instrumental Analysis Credit Hours: 3
ENSC 3301	Energy and the Environment Credit Hours: 3
ENSC 4251	Laboratory for Environmental Analysis Credit Hours: 2
ENSC 4323	Soils in the Environment Credit Hours: 3
ENSC 4333	Introduction to Global Climate Change Credit Hours: 3
ENSC 4352	Water Chemistry and Water Pollution Credit Hours: 3
ENSC 4355	Environmental Sampling and Monitoring Credit Hours: 3
ENSC 4356	Soil and Groundwater Remediation Credit Hours: 3
Environmental Chemistry Specialization Electives	
Select 10 hours of specialization electives	
CHEM 4274	Laboratory for Quantitative Chemical Analysis Credit Hours: 2

CHEM 4371	Advanced Spectroscopic Analysis Credit Hours: 3
CHEM 4373	Quantitative Chemical Analysis Credit Hours: 3
ENSC 3307	Geographic Information Systems Credit Hours: 3
ENSC 4325	Environmental Toxicology Credit Hours: 3
ENSC 4335	Applied GIS Credit Hours: 3
ENSC 4351	Hydrogeology Credit Hours: 3
ENSC 4389	Independent Study in Environmental Science Credit Hours: 3
ENSC 4391	Topics in Environmental Science Credit Hours: 3
GEOL 3317	Mineralogy and Petrology Credit Hours: 3
GEOL 3117	Laboratory for Mineralogy and Petrology Credit Hours: 1
GEOL 4326	Oceanography Credit Hours: 3
Additional Information	
Prerequisites and corequisites must be met as required.	
Environmental Geology Specialization (33 hours)	
GEOL 1103	Laboratory for Physical Geology Credit Hours: 1
GEOL 1104	Laboratory for Historical Geology Credit Hours: 1
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
GEOL 3240	Geological Field Methods Credit Hours: 2
GEOL 4324	Geomorphology Credit Hours: 3

GEOL 4325	Sedimentation and Stratigraphy Credit Hours: 3
ENSC 3307	Geographic Information Systems Credit Hours: 3
ENSC 4251	Laboratory for Environmental Analysis Credit Hours: 2
ENSC 4323	Soils in the Environment Credit Hours: 3
ENSC 4351	Hydrogeology Credit Hours: 3
ENSC 4355	Environmental Sampling and Monitoring Credit Hours: 3
ENSC 4356	Soil and Groundwater Remediation Credit Hours: 3
Environmental Geology Specialization Electives	
Select 9 hours of specialization electives	
ENSC 3301	Energy and the Environment Credit Hours: 3
ENSC 4335	Applied GIS Credit Hours: 3
ENSC 4352	Water Chemistry and Water Pollution Credit Hours: 3
ENSC 4325	Environmental Toxicology Credit Hours: 3
ENSC 4333	Introduction to Global Climate Change Credit Hours: 3
ENSC 4336	Web GIS Credit Hours: 3
ENSC 4337	Geospatial Technologies Credit Hours: 3
ENSC 4389	Independent Study in Environmental Science Credit Hours: 3
ENSC 4391	Topics in Environmental Science Credit Hours: 3
GEOL 3317	Mineralogy and Petrology Credit Hours: 3
GEOL 3117	Laboratory for Mineralogy and Petrology Credit Hours: 1
GEOL 4326	Oceanography Credit Hours: 3

GEOL 4145	Lab for Structural Geology Credit Hours: 1
GEOL 4345	Structural Geology Credit Hours: 3
GEOL 4327	Natural Disasters Credit Hours: 3
GEOL 4375	Petroleum Geology Credit Hours: 3
Additional Information	
Prerequisites and corequisites must be met as required.	
Physical Geology Specialization (33 hours)	
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1103	Laboratory for Physical Geology Credit Hours: 1
GEOL 1304	Historical Geology Credit Hours: 3
GEOL 1104	Laboratory for Historical Geology Credit Hours: 1
GEOL 3317	Mineralogy and Petrology Credit Hours: 3
GEOL 3117	Laboratory for Mineralogy and Petrology Credit Hours: 1
GEOL 3240	Geological Field Methods Credit Hours: 2
GEOL 4345	Structural Geology Credit Hours: 3
GEOL 4145	Lab for Structural Geology Credit Hours: 1
GEOL 4324	Geomorphology Credit Hours: 3
GEOL 4325	Sedimentation and Stratigraphy Credit Hours: 3
GEOL 4375	Petroleum Geology Credit Hours: 3
Physical Geology Specialization Electives	
ENSC 4335	Applied GIS Credit Hours: 3
ENSC 4355	Environmental Sampling and Monitoring Credit Hours: 3

ENSC 4389	Independent Study in Environmental Science Credit Hours: 3
ENSC 4391	Topics in Environmental Science Credit Hours: 3
GEOL 4317	Advanced Mineralogy and Petrology Credit Hours: 3
GEOL 4326	Oceanography Credit Hours: 3
GEOL 4327	Natural Disasters Credit Hours: 3
GEOL 4391	Selected Topics in Geology Credit Hours: 3

Environmental Science Scholars Plan - Linked B.S.-M.S. Degree Plans in Environmental Science

The Environmental Science Scholars Plan combines the B.S. degree plan in Environmental Science with M.S. degree plan in Environmental Science with the intention of allowing highly motivated and qualified students to complete both the B.S. and M.S. degrees in environmental science in a time and cost efficient manner. Students in the plan may take up to four courses at the graduate level in their senior year if they have completed the required course prerequisites. These graduate credit hours may be applied toward either the B.S. or M.S. degree, but not both. Additionally, students in the Scholars Plan are expected to begin a graduate research project early in their studies. After admission to the Scholars Plan and successful completion of the B.S. degree

in Environmental Science, the Environmental Science Program Graduate Admissions committee will consider waiving the Graduate Record Examination (GRE) requirement for admission into the Environmental Science Graduate Program.

Environmental Science scholars plan application Requirements:

- Applicants may apply for admission to the program during their sophomore, junior or senior year in college.
- Applicants must declare themselves to be Environmental Science majors immediately upon admission.
- Applicants must have completed a minimum of 12 credit hours in mathematics/science coursework at the lower level, including a minimum of eight credit hours in environmental science core, and have a cumulative mathematics/science GPA of 3.5.
- Applicants must provide a letter of recommendation from a science faculty adviser familiar with the student's coursework.
- Applicants must interview with the Scholars Plan Admissions Committee.

After admission, successful continuation in the Scholars Plan will require students to:

- Maintain an overall GPA of 3.0 and Mathematics/Science GPA of 3.0. Failure to maintain these averages will result in a one-semester probation period during which the student must improve his/her cumulative GPA to 3.0, and their Mathematics/Science GPA to 3.0.

- Participate in a research project as an Independent Study course under the supervision of a graduate faculty adviser during the senior undergraduate year.
- Enroll in the Environmental Science Graduate Program upon completion of the requirements for the B.S. degree.
- Successfully complete a research project as an Independent Study or graduate thesis under the supervision of a graduate faculty adviser as part of their MS degree coursework.

Students who fail to meet any of these requirements will be dropped from the Scholars Plan, but may continue to pursue the B.S. or M.S. degree. Students who are dropped from the Scholars Program, but who wish to continue to pursue the M.S. degree, must meet the standard application requirements for admission to the Environmental Science Graduate Program.

At the completion of the requirements for each degree the student will be awarded the B.S. and M.S. degrees. A notation will be made on the student's transcript indicating they have completed the Environmental Science Scholars Plan.

In the event a student is unable to complete the entire program of study, they are assured the B.S. degree in Environmental Science upon completion of the requirements for that degree. In the event a student fails to complete the M.S. degree requirements, graduate level classes taken while in the program may be applied toward the B.S. degree.

Finance B.S.

University Core Requirements (42 Hours)

Develop the skills that prepare you to manage corporate investments and analyze asset allocations when you graduate with a Bachelor of Science in Finance from University of Houston-Clear Lake. Learn investment skills that prepare you to understand the market's role in valuing firm assets and the decisions of individual and institutional investors. You will learn from College of Business faculty who consult and serve on boards throughout the community. So, it's no mystery why finance graduates move on to top organizations with jobs in commercial banking, financial planning, investment banking, money managing, insurance and real estate.

The degree in Finance leads to a Bachelor of Science. A minimum of 57 upper-level (33XX and 43XX) hours and a total of 120 hours are required for the baccalaureate degree.

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Additional Information

Grades must be C- or higher.

Mathematics (3 hours)

MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
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Additional Information

Grade must be C- or higher.

Life and Physical Sciences (6 hours)

Choose two course from the approved list:	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience

	Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
Additional Information	
Other courses may meet this requirement, however, ECON 2301 will still be required for all Business majors	
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses, or their approved equivalents, constitute the Business Core and are

required of all business students. No more than six hours of grades in the range of D+, D or D- are permitted in upper-level (33XX and 43XX) Business Core Requirements.

Core Requirements for Business Majors (48 hours)

ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3

Additional Information

MGMT 4312 Capstone course -- requires permission.

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Major Requirements (24 hours)

Choose one from list (3 hours)

ACCT 3341	Intermediate Accounting I Credit Hours: 3
ACCT 3332	Financial Reporting and Analysis Credit Hours: 3

Choose one from list (3 hours)

ACCT 3342	Intermediate Accounting II Credit Hours: 3
FINC 4341	Structure of Financial Statements Credit Hours: 3

Finance requirements (12 hours)

FINC 3333	Intermediate Financial Management Credit Hours: 3
FINC 3353	Investments Credit Hours: 3
FINC 4331	Contemporary Financial Institutions Credit Hours: 3
FINC 4351	International Financial Operations Credit Hours: 3

Finance Electives (6 hours)

Choose two courses from the approved list:

ACCT 4352	Advanced Financial Accounting Credit Hours: 3
FINC 3301	Personal Money Management Credit Hours: 3
FINC 3351	Real Estate Investment Analysis Credit Hours: 3
FINC 4353	Financial Derivatives Credit Hours: 3
FINC 4361	Treasury Management Credit Hours: 3
FINC 4391	Selected Topics in Finance Credit Hours: 3

Elective Requirements (6 hours)

General Electives (6 hours)

Choose any two of courses 33XX or 43XX offered by Colleges of Business, Human Sciences & Humanities, Science and Engineering or Education.

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Fitness and Human Performance B.S.

The undergraduate major in Fitness and Human Performance leads to the Bachelor of Science (B.S.) degree. Students in this course of study will prepare for careers in physical therapy, occupational therapy, chiropractic medicine, strength and conditioning, health promotion/corporate wellness, exercise testing, or exercise prescription. Although no specific prerequisite must be met prior to admission to the major, a background in biological and social sciences is strongly recommended. Students interested in the FHP concentrations in Pre-Physical Therapy, Pre-Physician's Assistant, Pre-Occupational Therapy, and Pre-Chiropractic must possess

or acquire specific course requirements (see the Pre-PT, Pre-PA, Pre-OT, and Pre-DC concentration sections below for further information).

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

MATH 1314	College Algebra Credit Hours: 3
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Life and Physical Sciences (6 hours)

BIOL 2101	Laboratory for Anatomy and Physiology I Credit Hours: 1
BIOL 2102	Laboratory for Anatomy and Physiology II Credit Hours: 1
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose ONE of the following courses.

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)

Choose ONE of the following courses.

ARTS 1303	World Art Survey I Credit Hours: 3
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ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
Additional Information	
<ul style="list-style-type: none"> Lab class is recommended for Anatomy and Physiology. Students may request permission from the program to substitute other Biology, Physics, or Chemistry classes for the life sciences requirement. PSYC 2301 is required for all Pre-Physical Therapy, Pre-Occupational Therapy, Pre-Physician's Assistant, and Pre-Chiropractic students. ECON 2301 or ECON 2302 is required for students obtaining teacher certification. 	
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (6 hours)

48 hours of upper-level credit must be a "C" or better.

External Department Requirement (3 hours)

Students can complete any upper level Anthropology, Geography, or Sociology course for this requirement, but the following courses are recommended.

ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3
GEOG 4301	Urban Geography Credit Hours: 3
GEOG 4321	Fundamentals of Geographic Information Systems Credit Hours: 3
SOCI 4358	Family and Society Credit Hours: 3
SOCI 4364	Medical Sociology Credit Hours: 3

Core Requirements (3 hours)

Choose ONE of the following courses.

WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (42 hours)

HLTH 4370 requires instructor permission and has pre-requisite of HLTH 4301

Fitness and Human Performance Courses

HLTH 2301	Introduction to Exercise Science Credit Hours: 3
HLTH 3301	Health, Emergency Care and First Aid Credit Hours: 3
HLTH 3303	Nutrition and Weight Management Credit Hours: 3
HLTH 3304	Principles of Physical Fitness Credit Hours: 3
HLTH 3309	Evidence-Based Practice Credit Hours: 3

HLTH 4301	Physiology of Exercise Credit Hours: 3
HLTH 4302	Biomechanics Credit Hours: 3
HLTH 4305	Seminar in Sports Medicine Credit Hours: 3
HLTH 4308	Resistive Exercise: Theory and Practice Credit Hours: 3
HLTH 4370	Undergraduate Practicum Credit Hours: 3

Concentration Area (12 or more hours, depending on selection)

The following HLTH courses require instructor permission, controlled access: 4309, 4370, 4379 & 4391

HLTH 4370 has pre-requisite of HLTH 4301

Exercise Science Concentration

Choose 12 hours: 3316, 3317, 4307 recommended. Upper level BIOL & PSYC are options but pre-requisites may apply.

HLTH 3316	Applied Kinesiology Credit Hours: 3
HLTH 3317	Motor Development and Learning Credit Hours: 3
HLTH 4307	Peak Performance Credit Hours: 3
HLTH 4309	Research Practicum Credit Hours: 3
HLTH 4379	Internship Credit Hours: 3
HLTH 4391	Selected Topics in Health Credit Hours: 3

Health Promotion Concentration

Choose 12 hours

HLTH 2303	Personal Health and Fitness Credit Hours: 3
HLTH 3315	Health Promotion Programs Credit Hours: 3
HLTH 3319	Introduction to Public Health

	Credit Hours: 3
HLTH 3320	Health Inequalities Credit Hours: 3
HLTH 4379	Internship Credit Hours: 3
HLTH 4391	Selected Topics in Health Credit Hours: 3

Pre-Physical Therapy Concentration

Students must complete all courses listed below.

BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 4241	Laboratory for Physiology Credit Hours: 2
BIOL 4345	Human Physiology Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
HLTH 3316	Applied Kinesiology Credit Hours: 3
HLTH 4379	Internship Credit Hours: 3
PHYS 1101	Laboratory for College Physics I Credit Hours: 1
PHYS 1102	Laboratory for College Physics II Credit Hours: 1
PHYS 1302	College Physics II Credit Hours: 3
PSYC 4314	Child Psychology Credit Hours: 3
PSYC 4371	Experimental Methods and Statistics Credit Hours: 3

Additional Information

- A 3.00 GPA must be maintained for admission to UTMB's PT Plan.
- A 3.00 GPA must be maintained for all science and math courses.
- No grade below a "C" will be accepted by UTMB's PT Plan for any pre-requisite course.

Pre-Occupational Therapy Concentration

Students must complete all courses listed below.

PSYC 2314	Human Growth and Development Lifespan Credit Hours: 3
PSYC 4371	Experimental Methods and Statistics Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3

Pre-Physician's Assistant Concentration

Students must complete all courses listed below.

BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
BIOL 2321	Microbiology for Science Majors Credit Hours: 3
BIOL 3141	Laboratory for Molecular Genetics Credit Hours: 1
BIOL 3173	Laboratory for Human Anatomy Credit Hours: 1
BIOL 3341	Molecular Genetics Credit Hours: 3
BIOL 3373	Human Anatomy Credit Hours: 3
BIOL 4241	Laboratory for Physiology Credit Hours: 2
BIOL 4345	Human Physiology Credit Hours: 3
BIOL 4361	Immunology Credit Hours: 3

CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2325	Organic Chemistry II Credit Hours: 3
HLTH 3316	Applied Kinesiology Credit Hours: 3
PHYS 1101	Laboratory for College Physics I Credit Hours: 1
PHYS 1102	Laboratory for College Physics II Credit Hours: 1
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PSYC 2314	Human Growth and Development Lifespan Credit Hours: 3
PSYC 4370	Nonexperimental Methods and Statistics Credit Hours: 3

Pre-Chiropractic Concentration

Students must complete all course listed below.

BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1

CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
HLTH 3316	Applied Kinesiology Credit Hours: 3
HLTH 3317	Motor Development and Learning Credit Hours: 3
HLTH 4379	Internship Credit Hours: 3
Additional Information	
Note: Elective hours will be used to fulfill deficiencies in prerequisite courses.	
Electives	
Elective hours may be needed to fulfill the 45 upper level/120 total hour requirements.	

UHCL FHP contacts: Ms. Denise Cazes, 281-283-3419, cazes@uhcl.edu or Dr. William Amonette, 281-283-3381, amonette@uhcl.edu.

Fitness and Human Performance B.S. with Grades EC-12 Physical Education Certification

Note: This degree requires a minimum of 130 credit hours.

Students seeking teacher certification for physical education may complete the following program of study. A secondary teaching field in Life Science, Special Education, or Social Studies is required for this concentration.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I

	Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3

Social Behavioral Sciences (3 hours)

Choose ONE of the following courses.

ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3

Additional Information

ECON 2301 or ECON 2302 is required for students obtaining teacher certification.

Public Speaking (3 hours)

COMM 1315	Public Speaking Credit Hours: 3
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Component Area Options (3 hours)

Two 1- hour life and Physical Science Labs - required co-requisites for the chosen science courses.

PSYC 1100	Learning Frameworks Credit Hours: 1
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**College of Human Sciences and Humanities
Core Requirements (6 hours)**

48 hours of upper-level credit must be a "B-" or better.

Core Requirement (3 hours)

Choose ONE of the following courses. Students can complete any upper level Anthropology, Geography, or Sociology course for this requirement, but the following courses are recommended. A grade of C+ or better is required.

WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Additional Information

Grade of "C+" or better is required.

Choose ONE of the following courses.

ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3
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GEOG 4301	Urban Geography Credit Hours: 3
SOCI 4358	Family and Society Credit Hours: 3

College of Education Requirements (22 hours)**Teacher Education Program (TEP) Admission Requirements**

- Completion of 60 semester credit hours.
- Completion of prerequisite coursework (EDUC 4310, INST 3313, SILC 4315, and TCED 4102).
- Completion of public speaking requirement.
- Completion of Basic Skills in Reading, Mathematics, and Writing.
- 2.750 GPA overall or in the last 60 semester credit hours.
- Completion of 12 semester credit hours in the subject-specific content area for target teacher certification.
- \$37 TEA Admission Fee
- Application for admission to the [Teacher Education Program \(TEP\)](#).

Core Requirement

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3

TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
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Credit Hours: 9

Additional Information

- Enrollment in the courses listed above requires admission to the TEP.
- 3.000 GPA required in pedagogy coursework.
- TCED 4378 must be taken in the long semester immediately preceding the final semester.
- TCED 4978 must be taken in the final semester

Major Requirements (27 hours)

HLTH 4370 requires instructor permission and has pre-requisite of HLTH 4301

Courses	
HLTH 2110	Team Games and Sports Credit Hours: 1
HLTH 2113	Individual Games and Sports Credit Hours: 1
HLTH 2115	Innovative Games and Sports Credit Hours: 1
HLTH 3301	Health, Emergency Care and First Aid Credit Hours: 3
HLTH 3317	Motor Development and Learning Credit Hours: 3
HLTH 4301	Physiology of Exercise Credit Hours: 3
HLTH 4302	Biomechanics Credit Hours: 3
HLTH 4305	Seminar in Sports Medicine Credit Hours: 3
HLTH 4307	Peak Performance Credit Hours: 3
HLTH 4308	Resistive Exercise: Theory and Practice Credit Hours: 3
HLTH 4370	Undergraduate Practicum Credit Hours: 3

Pedagogy Requirements (18 hours)

Courses	
HLTH 4311	Methods in Physical Education I Credit Hours: 3
HLTH 4312	Methods in Physical Education II Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching

Teacher Certification Requirements

- Passing scores on the appropriate state assessments (Texas Examinations of Educator Standards [TExES] are required for recommendation for teacher certification.
 - EC-12 Physical Education TExES #158
 - EC-12 Pedagogy and Professional Responsibilities TExES #160
- All courses outside the University Core must be "C-" or better unless otherwise stated.

2nd Teaching Field (15 hours)

Choose one of the following 2nd Teaching Fields.

Life Sciences	
BIOL 3141	Laboratory for Molecular Genetics Credit Hours: 1
BIOL 3341	Molecular Genetics Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
TCED 4362	Methods in Secondary Science Credit Hours: 3
Special Education	

SPED 4311	Assessment in Special Education Credit Hours: 3
SPED 4312	Diagnostic Instruction for Learners With Special Needs Credit Hours: 3
SPED 4313	Individualizing Instruction for Students With Disabilities Credit Hours: 3
SPED 4321	Implementing Positive Behavior Supports Credit Hours: 3
SPED 4332	Early Childhood Special Education Credit Hours: 3
Social Sciences	
GEOG 4314	Teaching Geography Credit Hours: 3
HIST 2301	Texas History Credit Hours: 3
TCED 4361	Methods in Secondary Social Studies Credit Hours: 3
Choose ONE of the following courses.	
GEOG 4300	Geography of North America Credit Hours: 3
GEOG 4303	Geography of Texas Credit Hours: 3
GEOG 4312	Human Geography Credit Hours: 3
Choose ONE of the following courses.	
HIST 3325	Colonial America Credit Hours: 3
HIST 3330	Civil War and Reconstruction Credit Hours: 3
HIST 3337	U.S. during the Cold War Credit Hours: 3
HIST 4313	Studies in U.S. History Credit Hours: 3

General Business B.S.

Are you passionate about a wide range of topics? If the answer to this question is yes, then pursuing a Bachelor of Science in General

Business at the University of Houston-Clear Lake might be for you. This degree program requires you to work closely with your adviser to select courses, from various degree programs in the College of Business, that match your interests and career goals. Students who have graduated with a General Business degree have become successful entrepreneurs, retail and sales managers, and general managers.

The flexibility of the Bachelor of Science in General Business will help you succeed by developing the skills to operate, manage, and lead a prosperous 21st century enterprise. Even more, you will learn these skills at a university whose College of Business is accredited by the Association to Advance Collegiate Schools of Business International.

The degree in General Business leads to the Bachelor of Science. A minimum of 57 upper-level (33XX and 43XX) hours and a total of 120 hours are required for the baccalaureate degree.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Additional Information Grades must be C- or higher.	
Mathematics (3 hours)	
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
Additional Information Grade must be C- or higher.	
Life and Physical Sciences (6 hours)	

Choose two courses from the approved list:	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience

	Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours) Choose one course from the approved list	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
Additional Information	
Other courses may meet this requirement, however, ECON 2301 will still be required for all Business majors.	
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses, or their approved equivalents constitute the business core and are required of all business students. No more than 6 hours of grades in the range of D+, D or D- are permitted in upper-level (33XX and 43XX) Business Core Requirements.

Core Requirements for Business Majors (48 hours)	
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3

Additional Information

MGMT 4312 Capstone course--requires permission.

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Major Requirements (18 hours)

All courses within the Major Requirements must be completed with a grade of C- or better. A minimum cumulative GPA of 2.0 or higher is required to graduate.

Major Requirements (18 hours)

18 hours in upper-level (33xx or 43xx) Business course work with no more than 6 hours of course work from any one of the following areas: Accounting, Decision Sciences, Economics, Finance, Healthcare Administration, Management Information Systems, Management, and/or Marketing.

Elective Requirements (12 hours)

Elective Requirements (12 hours)

Choose four courses from any upper-level (33xx or 43XX) elective courses offered by Colleges of Business, Human Sciences & Humanities, Science & Engineering or Education.

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Geography B.S.

The Geography major offers two undergraduate degrees, a Bachelor of Science and a [Bachelor of Science with Grades 7–12 Social Studies Certification](#).

All students complete a core within Geography that provides a broad background in the discipline and prepares them to complete the Geography degree. The Bachelor of Science emphasizes proficiency in human geography and human/environment interactions, and it develops skills in geospatial technologies. Students are encouraged to develop an individualized program of study with their adviser. The Bachelor of Science with Grades 7–12 Social Studies Certification prepares future social studies teachers through a multi-disciplinary curriculum comprised of social science and education courses.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3

ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Additional Information	
Accompanying lab must be taken in the same semester.	
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3

PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Additional Information	
Students cannot choose GEOG 1303 to meet this requirement.	

Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (3 hours)

Core Requirement (3 hours)	
Choose ONE of the following courses.	
WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Additional Information	
A grade of "B-" or better is required for WRIT 3306 or WRIT 3307.	

Major Requirements (39 hours)

Geography Courses (21 hours)	
GEOG 1301	Modern Physical Geography Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4301	Urban Geography Credit Hours: 3
GEOG 4312	Human Geography Credit Hours: 3
GEOG 4321	Fundamentals of Geographic Information Systems Credit Hours: 3
GEOG 4323	Geographic Information Systems Design and Implementation Credit Hours: 3
Choose ONE of the following courses. (3 hours)	
GEOG 4300	Geography of North America Credit Hours: 3
GEOG 4302	Geography of Latin America Credit Hours: 3

GEOG 4303	Geography of Texas Credit Hours: 3
Methodology courses (12 hours)	
ANTH 4372	Applied Qualitative Methods Credit Hours: 3
CINF 3321	Information Systems Theory and Practice Credit Hours: 3
SOCI 4384	Statistics Credit Hours: 3
SOCI 4385	Research Methods Credit Hours: 3
Additional courses (3 hours)	
Any 3300/4300-level course chosen from ARTS, COMM, HIST, HUMN, LITR, PHIL, or WRIT. Courses should be selected in consultation with faculty adviser.	

Electives (36 hours)

Courses should be selected in consultation with faculty adviser.

Geography B.S. with Social Studies 7-12 Certification

Note: This degree requires 127 credit hours.

The Geography major offers two undergraduate degrees, a Bachelor of Science and a [Bachelor of Science with Grades 7-12 Social Studies Certification](#).

All students complete a core within Geography that provides a broad background in the discipline and prepares them to complete the Geography degree. The Bachelor of Science emphasizes proficiency in human geography and human/environment interactions, and it develops skills in geospatial technologies. Students are encouraged to develop an individualized program of study with their

adviser. The Bachelor of Science with Grades 7-12 Social Studies Certification prepares future social studies teachers through a multi-disciplinary curriculum comprised of social science and education courses.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3

CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3

Additional Information

Accompanying lab must be taken in the same semester.

Language, Philosophy and Culture (3 hours)

Choose ONE of the following courses.

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)

Choose ONE of the following courses.

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3

U.S. History (6 hours)

HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3

Government/ Political Science (6 hours)

POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3

Social Behavioral Sciences (3 hours)

Choose ONE of the following courses.

ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3

Public Speaking (3 hours)

COMM 1315	Public Speaking Credit Hours: 3
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Component Area Options (3 hours)

Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.

PSYC 1100	Learning Frameworks Credit Hours: 1
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College of Human Sciences and Humanities Core Requirements (6 hours)

48 hours of upper-level credit must be "C" or better.

Core Requirement (3 hours)

Choose ONE of the following courses. A grade of "C+" or better is required

WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Additional Information

Grade of "C+" or better is required.

Additional Core Courses (3 hours)

Choose from any 3300/4300-level course in ARTS, COMM, HIST, HUMN, LITR, PHIL, or WRIT.

College of Education Core Requirements (19 hours)**Core Requirements**

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Teacher Education Program (TEP) Admission Requirements

- Completion of 60 semester credit hours.
- Completion of prerequisite coursework (EDUC 4310, INST 3313, SILC 4315, and TCED 4102.)
- Completion of public speaking requirement.
- Completion of Basic Skills in Reading, Mathematics, and Writing.
- 2.750 GPA overall or in the last 60 semester credit hours.
- Completion of 12 semester credit hours in the subject-specific content area for target teacher certification.
- \$37 TEA Admission Fee
- Application for admission to the [Teacher Education Program \(TEP\)](#).

Major Requirements (45 hours)**Courses**

In addition to the courses below students should also complete two History (HIST) electives.

GEOG 1301	Modern Physical Geography Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4300	Geography of North America Credit Hours: 3
GEOG 4301	Urban Geography Credit Hours: 3
GEOG 4302	Geography of Latin America Credit Hours: 3
GEOG 4303	Geography of Texas Credit Hours: 3
GEOG 4312	Human Geography Credit Hours: 3
GEOG 4314	Teaching Geography Credit Hours: 3
GEOG 4321	Fundamentals of Geographic Information Systems Credit Hours: 3
HIST 2301	Texas History Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3

Additional Information

- GPA of 2.500 or higher required in GEOG and HIST coursework.

Pedagogy Requirements (15 hours)**Required Courses**

TCED 4361	Methods in Secondary Social Studies Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9

Additional Information

- Enrollment in the courses listed above requires admission to the TEP.
- 3.000 GPA required in pedagogy coursework.
- TCED 4378 Pre-Service Internship I must be taken in the long semester immediately preceding the final semester.
- TCED 4978 Pre-Service Internship II must be taken in the final semester

Teacher Certification Requirements

- Passing scores on the appropriate state assessments Texas Examinations of Educator Standards [TExES] are required for recommendation for teacher certification.
 - 7-12 Social Studies TExES #232
 - EC-12 Pedagogy and Professional Responsibilities TExES #160
- All courses outside the University Core must be "C-" or better unless otherwise stated.

Healthcare Administration B.S.

The Bachelor of Science degree in Healthcare Administration provides students with the skills needed to obtain entry-level management positions in the healthcare industry and to pursue career opportunities in Healthcare Administration.

A minimum of 57 upper-level (33XX and 43XX) hours and a total of 120 hours are required for the baccalaureate degree.

University Core Requirements (42 Hours)**Communication (6 hours)**

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II

Credit Hours: 3

Additional Information

Grades must be C- or better

Mathematics (3 hours)

MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
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Additional Information

Grade must be C- or better

Life and Physical Sciences (6 hours)

Choose two course from the approved list:

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3

PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours) Choose one course from the approved list	
ECON 2301	Principles of Macroeconomics Credit Hours: 3

Additional Information

Other courses may meet this requirement, however, ECON 2301 will still be required for all Business majors

Component Area Option (6 hours)

Two 1- hour Life and Physical Science Labs

COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses, or their approved equivalents, constitute the business core and are required of all business students. No more than 6 hours of grades in the range of D+, D or D- are permitted in upper-level (33XX and 43XX) Business Core Requirements.

Core Requirements for Business Majors (48 hours)

ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3

LEGL 3301	Business Law Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3

Additional Information

MGMT 4312 Capstone course--requires permission.

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Major Requirements (21 hours)

All courses within the Major Requirements must be completed with a grade of C- or better. A minimum cumulative GPA of 2.0 or higher is required to graduate.

Major Requirements (21 hours)	
HADM 3311	Foundations of Healthcare Administration Leadership Credit Hours: 3
HADM 3351	Physician Group Practice Management Credit Hours: 3
HADM 4312	Healthcare Planning and Marketing Credit Hours: 3
HADM 4316	Medical Reimbursement Credit Hours: 3
HADM 4332	Legal Dimensions of Healthcare Administration Credit Hours: 3
HADM 4341	HR in Healthcare Administration Credit Hours: 3
HADM 4351	Financial Dimensions of Healthcare Administration II Credit Hours: 3

Elective Requirements (9 hours)

HADM Elective Requirement (3 hours)

Choose one 3-hour HADM upper-level (33XX or 43XX)

General Elective Requirements (6 hours)

Choose any two upper-level (33XX or 43XX) courses offered by Colleges of Business, Human Sciences & Humanities, Science & Engineering or Education

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Healthcare Services B.A.S.

The Bachelor of Applied Science is a collaborative partnership with community colleges and employers in the UHCL service area.

The program is designed for students with an associates of applied science degree in the allied health professions. Upon their enrollment at the University of Houston-Clear Lake, incoming students will transfer a significant portion of their vocation/technical credit hours that they earn through their associates program.

The HADM courses will be offered through UHCL's Healthcare Administration Department,

which is physically based in the Texas Medical Center. This curriculum prepares students in allied health professions to advance into an administrative position within their healthcare facilities. A minimum of 45 upper-level (33XX and 43XX) hours and a total of 120 hours are required for the baccalaureate degree.

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
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WRIT 1302	Composition II Credit Hours: 3
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Mathematics (3 hours)

Choose one course from the approved list:

MATH 1314	College Algebra Credit Hours: 3
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MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
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MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3
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MATH 1332	Contemporary Mathematics Credit Hours: 3
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MATH 1342	Elementary Statistical Methods Credit Hours: 3
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MATH 1350	Mathematics for Teachers I Credit Hours: 3
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MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
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MATH 2413	Calculus I Credit Hours: 4
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Life and Physical Sciences (6 hours)

Choose two course from the approved list:

ASTR 1303	Stars and Galaxies Credit Hours: 3
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ASTR 1304	Solar System Credit Hours: 3
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BIOL 1306	Biology for Science Majors I
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	Credit Hours: 3
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BIOL 1307	Biology for Science Majors II Credit Hours: 3
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BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
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BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
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BIOL 2301	Anatomy & Physiology I Credit Hours: 3
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BIOL 2302	Anatomy & Physiology II Credit Hours: 3
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CHEM 1305	Introductory Chemistry I Credit Hours: 3
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CHEM 1311	General Chemistry I Credit Hours: 3
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CHEM 1312	General Chemistry II Credit Hours: 3
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ENSC 1301	Environmental Science I Credit Hours: 3
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ENSC 1302	Environmental Science II Credit Hours: 3
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GEOL 1303	Physical Geology Credit Hours: 3
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GEOL 1304	Historical Geology Credit Hours: 3
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PHYS 1301	College Physics I Credit Hours: 3
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PHYS 1302	College Physics II Credit Hours: 3
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PHYS 2325	University Physics I Credit Hours: 3
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PHYS 2326	University Physics II Credit Hours: 3
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Language, Philosophy and Culture (3 hours)

Choose one course from the approved list:

HUMN 1301	Humanities Credit Hours: 3
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LITR 2341	Literature and Experience Credit Hours: 3
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PHIL 1301	Introduction to Philosophy Credit Hours: 3
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WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
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Creative Arts (3 Hours)

Choose one course from the approved list:

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3

American History (6 hours)

HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3

Government/ Political Science (6 hours)

POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3

Social and Behavioral Sciences (3 hours)

Choose one course from the approved list:

ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3

Component Area Option (6 hours)

Two 1- hour Life and Physical Science Labs

COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (27 hours)

The following courses, or their approved equivalents, together with accounting and economics principles and business law, constitute the business core and are required of all business students. All courses within the Major Requirements must be completed with a grade of C- or better. A minimum cumulative GPA of 2.0 or higher is required to graduate.

Major Requirements (27 hours)*

HADM 3311	Foundations of Healthcare Administration Leadership Credit Hours: 3
HADM 3322	Financial Dimensions of Healthcare Administration I Credit Hours: 3
HADM 3333	Healthcare Economics Credit Hours: 3
HADM 3351	Physician Group Practice Management Credit Hours: 3
HADM 4312	Healthcare Planning and Marketing Credit Hours: 3
HADM 4316	Medical Reimbursement Credit Hours: 3
HADM 4326	Hospital Operations Credit Hours: 3
HADM 4332	Legal Dimensions of Healthcare Administration Credit Hours: 3
HADM 4341	HR in Healthcare Administration Credit Hours: 3
HADM 4351	Financial Dimensions of Healthcare Administration II Credit Hours: 3

Additional Information

*Students may take HADM 3351 OR HADM 4326

Elective Requirements (18 hours)**Prescribed Elective Requirements (9 hours)***

PSYC 4370	Nonexperimental Methods and Statistics Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
MGMT 4354	Organizational Behavior Theory and Application Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3

Additional Information

*Students may take PSYC 4370 OR DSCI 3321.

General Electives (9 hours)

Any three upper-level (33XX or 43XX) courses offered by Colleges of Business, Human Sciences and Humanities, Science & Engineering, or Education

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

History B.A.

The undergraduate major in History leads to the Bachelor of Arts (B.A.) degree. The major is broadly conceived to include all aspects of human development and heritage: political, social, economic, and cultural. The undergraduate major in History has sufficient

General Elective hours to enable completion of a minor.

Students who plan to teach history and/or government at the secondary school level should select the History major with teaching certification. For additional information, contact the [HSH Office of Advising](#).

There are no specific prerequisites for admission to this major other than a strong academic record and a lively interest in how ideas, institutions, societies, and individuals change and have changed over time.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3

BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3

ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
GEOG 1303	World Regional Geography Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (3 hours)

48 hours of upper-level credit must be "C" or better.

Core Requirement (3 hours)	
Choose ONE of the following courses.	
WRIT 3305	Writing for the Humanities Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (48 hours)

Humanities Requirement

Choose ONE of the following courses.	
HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3
Social Science Requirement	
Choose ONE of the following courses.	
ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ANTH 4334	Native Americans Credit Hours: 3
ANTH 4352	World Prehistory and Archaeology Credit Hours: 3
History Courses	
HIST 2321	World Civilization I Credit Hours: 3
HIST 2322	World Civilization II Credit Hours: 3
HIST 3316	Historical Studies Credit Hours: 3
Additional History Courses	
Choose TWO European History (3300/4300 level) courses.Choose FOUR American History (3300/4300 level) courses.Choose ONE Latin American History (3300/4300 level) course.Choose ONE Middle Eastern (3300/4300 level) course.Choose THREE History electives (3300/4300 level) courses.	

Elective Requirements (27 hours)

27 hours of electives may be selected from courses at any level (1300/2300/3300/4300). The History Program recommends that majors dedicate 15 of these hours to completing a

College of Human Sciences and Humanities minor.

History B.A. with History 7-12 Certification

Note: This degree requires a minimum of 127 credit hours.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3

CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I

	Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
GEOG 1303	World Regional Geography Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College of Human Sciences and Humanities Core Requirements (6 hours)

48 hours of upper-level credit must be "C" or better.

Humanities Requirement (3 hours)	
Choose ONE of the following courses.	
HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3
Core Requirement (3 hours)	
Choose ONE of the following courses.	

WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Additional Information	
Grade of "C+" or better is required	

College of Education Core Requirements (19 hours)

Core Requirement	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Teacher Education Program (TEP) Admission Requirements

- Completion of 60 semester credit hours.
- Completion of prerequisite coursework (EDUC 4310, INST 3313, SILC 4315, and TCED 4102.)
- Completion of public speaking requirement.
- Completion of Basic Skills in Reading, Mathematics, and Writing.
- 2.750 GPA overall or in the last 60 semester credit hours.
- Completion of 12 semester credit hours in the subject-specific content area for target teacher certification.
- \$37 TEA Admission Fee

- Application for admission to the [Teacher Education Program \(TEP\)](#).

Major Requirements (45 hours)

History Courses	
HIST 2301	Texas History Credit Hours: 3
HIST 2321	World Civilization I Credit Hours: 3
HIST 2322	World Civilization II Credit Hours: 3
HIST 3316	Historical Studies Credit Hours: 3
Additional History Courses	
Choose TWO European History (3300/4300 level) courses. Choose THREE American History (3300/4300 level) courses. Choose ONE Latin American History (3300/4300 level) course. Choose ONE Middle Eastern History (3300/4300 level) course. Choose One History elective (3300/4300 level) course.	
Additional Major Courses	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
LLS 4351	Reading in Content Subjects Credit Hours: 3
TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3
Additional Information	
• GPA of 2.500 or higher required in HIST and LLS coursework.	

Pedagogy Requirements (15 hours)

Required Courses	
TCED 4361	Methods in Secondary Social Studies Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information	
• Enrollment in the courses listed above requires admission to the TEP.	
• 3.000 GPA required in pedagogy coursework.	

- TCED 4378 Pre-Service Internship I must be taken in the long semester immediately preceding the final semester.
- TCED 4978 Pre-Service Internship II must be taken in the final semester.

Teacher Certification Requirements

- Passing scores on the appropriate state assessments (Texas Examinations of Educator Standards [TExES] are required for recommendation for teacher certification.
 - 7-12 History TExES #233
 - EC-12 Pedagogy and Professional Responsibilities TExES #160
- All courses outside the University Core must be "C-" or better unless otherwise stated.

History B.A. with Social Studies 7-12 Certification

Note: This degree requires a minimum of 127 credit hours.

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

Choose ONE of the following courses.

MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3

Life and Physical Sciences (6 hours)

Choose TWO of the following courses.

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3

PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
GEOG 1303	World Regional Geography Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College of Human Sciences and Humanities Core Requirements (6 hours)

48 hours of upper-level credit must be "C" or better.

Humanities Requirement (3 hours)

Choose ONE of the following courses.

HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

Core Requirement (3 hours)

Choose ONE of the following courses.

WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Additional Information

Grade of "C+" or better is required.

College of Education Core Requirements (19 hours)

Core Requirements

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Teacher Education Program (TEP) Admission Requirements

- Completion of 60 semester credit hours.
- Completion of prerequisite coursework (EDUC 4310, INST 3313, SILC 4315, and TCED 4102.)
- Completion of public speaking requirement.
- Completion of Basic Skills in Reading, Mathematics, and Writing.
- 2.750 GPA overall or in the last 60 semester credit hours.
- Completion of 12 semester credit hours in the subject-specific content area for target teacher certification.
- \$37 TEA Admission Fee
- Application for admission to the [Teacher Education Program \(TEP\)](#).

Major Requirements (45 hours)

History Courses	
HIST 2301	Texas History Credit Hours: 3
HIST 2321	World Civilization I Credit Hours: 3
HIST 2322	World Civilization II Credit Hours: 3
HIST 3301	Ancient World Credit Hours: 3
HIST 3316	Historical Studies Credit Hours: 3
Additional History Courses	
Choose TWO European History (3300/4300 level) courses. Choose THREE American History (3300/4300 level) courses. Choose ONE Latin American History (3300/4300 level) course. Choose ONE Middle Eastern History (3300/4300 level) course.	
Additional Major Courses	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3

TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3
Additional Information	
• GPA of 2.500 or higher required in HIST and LLLS coursework.	

Pedagogy Requirements (15 hours)

Required Courses	
TCED 4361	Methods in Secondary Social Studies Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information	
<ul style="list-style-type: none"> • Enrollment in the courses listed above requires admission to the TEP. • 3.000 GPA required in pedagogy coursework. • TCED 4378 Pre-Service Internship I must be taken in the long semester immediately preceding the final semester. • TCED 4978 Pre-Service Internship II must be taken in the final semester. 	

Teacher Certification Requirements

- Passing scores on the appropriate state assessments (Texas Examinations of Educator Standards [TExES] are required for recommendation for teacher certification.
 - 7-12 Social Studies TExES #232
 - EC-12 Pedagogy and Professional Responsibilities TExES #160
- All courses outside the University Core must be "C-" or better unless otherwise stated.

Humanities B.A.

The B.A. in Humanities provides students with a strong pre-professional education in the liberal arts. The major offers students flexibility in preparation for entrance into law school or other

graduate studies as well as careers in education, public service, social media and public relations, advertising, technical writing, museum and library work, and many other areas.

Humanities students develop skills in analytical thinking, critical analysis, interpretive ability, and written expression. Additionally, our cross-disciplinary and cross-cultural approach uniquely prepares graduates to engage in today's global environment.

Students completing the B.A. in Humanities are required to complete two minors from the following list: [Art and Design](#), [Art History](#), [History](#), [Latinx and Latin American Studies](#), [Literature](#), [Middle Eastern Studies](#), [Museum Studies](#), [Philosophy](#), [Professional Writing](#), and [Women's and Gender Studies](#).

For additional information about the degree, contact the [HSH Office of Advising](#).

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses or any math that satisfies core requirements.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3

ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose any ONE course from the core list.	
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3

ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (3 hours)

30 hours of upper-level credit must be a "C" or better.

Core Requirement (3 hours)	
Choose ONE of the following courses.	
WRIT 3305	Writing for the Humanities Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (45 hours)

Choose ONE of the following courses.	
HUMN 3374	Critical Inquiry Credit Hours: 3
PHIL 3321	Logic Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3
Philosophy Course (3 hours)	
Choose ONE of the following courses. Students may also complete any 3300/4300 level PHIL course not counted for credit toward the B.A. in Humanities.	
PHIL 1301	Introduction to Philosophy Credit Hours: 3
HUMN 1301	Humanities Credit Hours: 3
Arts courses (3 hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
Humanities courses (3 hours)	
HUMN 3375	Ideas in Transition Credit Hours: 3

Interdisciplinary (3 hours)

Choose ONE course outside the program that relates to student interest in disciplines such as ANTH, PSYC, or SOCI (3300/4300-level).

Electives courses (27 hours)

27 hours of electives can be any 1300/2300/3300/4300 level courses.

Minors (30 hours)

The 15 credit of course work must be unique for each minor, the same course cannot be counted toward both Minors.

Choose TWO minors (15 hours each)

Select two minors from the following (requirements are listed in the Minors section of the catalog): Art and Design, Art History, History, Latinx and Latin American Studies, Literature, Middle Eastern Studies, Museum Studies, Philosophy, Professional Writing, Women's and Gender Studies.

Information Technology B.S.

The B.S. in Information Technology delivers the tools that the students need to meet the rising demand in Networking, Systems Administration, Digital Forensics, Web Development, and Cybersecurity across public, private, non-profit, and government entities worldwide. The curriculum allows students to meet the increasing demand of our digital world with leading edge tools and hands-on activities.

Degree Requirements

This degree requires 120 hours and includes 42 hours of University Core. However, some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)**Communication (6 hours)**

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

MATH 1314	College Algebra Credit Hours: 3
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Life and Physical Sciences (6 hours)

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3

PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3

GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (48 Hours)

Students must meet these core requirements or approved upper-level substitutes.

Major Requirements	
ITEC 1310	Introduction to Information Technology Credit Hours: 3
ITEC 2313	Scripting I Credit Hours: 3
ITEC 2351	Web Fundamentals Credit Hours: 3
ITEC 2381	Forensics Fundamentals Credit Hours: 3
ITEC 3312	Scripting II Credit Hours: 3
ITEC 3335	Database Development Credit Hours: 3
ITEC 3365	Network Fundamentals
ITEC 3388	Cyber Security I Credit Hours: 3
ITEC 4313	Emerging Information Technology Credit Hours: 3
ITEC 4342	Information Technology Project Management Credit Hours: 3
ITEC 4388	Senior Project in Information Technology Credit Hours: 3

MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 3313	Organizational Communication Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
STAT 3308	Computational Statistics Credit Hours: 3
Additional Information	
At most, only 6 credits may be transferred toward the Major Requirements and IT Specialization. Lower-level credit given for any of the above courses may require students to take additional approved technical electives to satisfy the plan requirements.	
Additional Major Requirements Courses	
ITEC 4379 Internship in Information Technology or approved elective	

Elective Requirements (30 Hours)

Electives
This degree requires students to have 9 hours of Specialization electives. Additionally, 12 hours of major electives (upper or lower level technical classes, approved by faculty adviser).
Additional Information
<ul style="list-style-type: none"> 12 hours of major electives must be upper level classes which must be approved by the faculty adviser. Choose from approved ITEC/CSCI/CINF 33xx-43xx courses. The specific courses beyond the Major Requirements to be included in the Candidate Plan of Study (CPS) will be selected by students with the approval of the faculty adviser.

Specialization Requirements (9 Hours)

Students must select one of the following three specializations in Information Technology (IT).

Forensics Specialization	
Students interested in Computer Forensics must take the following three courses:	
ITEC 4381	Computer Forensics
ITEC 4382	Registry & Internet Forensics
CRIM 4330	Criminal Investigation Credit Hours: 3
Web Design and Development Specialization	

Students interested in Web Design and Development must take the following course:	
ITEC 4351	Web Design Credit Hours: 3
Additional Information	
In addition, students must take one course from each of the following options: CINF 4230 or ITEC 4352, and ARTS 2371 or ARTS 3360	
Information Technology Management and Administration Specialization	
Students interested in Information Technology Management and Administration must take:	
CSCI 4364	Computer Systems Administration Credit Hours: 3
Information Technology Management and Administration Specialization Requirements	
Students must take two of the following three classes:	
ITEC 4335	Database Administration Credit Hours: 3
ITEC 4365	Network Administration Credit Hours: 3
ITEC 4366	Computer Security and Disaster Recovery Credit Hours: 3
Additional Information	
Courses noted on the CPS as Major Requirements, Major Electives and IT Specialization must be completed with a grade of "C-" or better.	

Interdisciplinary Studies B.A.S. - Information Technology

The plan in Information Technology (IT) leads to the bachelor of applied science (B.A.S.) degree. This plan prepares students in a variety of IT careers such as systems administrators, network administrators, computer specialists, database managers, database administrators, computer technicians, computer security

manager, web designers and developers, etc. within commercial, industrial, educational and governmental institutions. The curriculum allows students to develop a broad background in information technology with a balance of theory and hands-on practical experience.

Degree Requirements

This degree requires 120 hours and includes 42 hours of University Core. University Core is listed separately in the catalog. Applicants can be considered for the Bachelor of Applied Science (BAS), Information Technology track in the College of Science and Engineering if they:

1. Have an Associate of Applied Science degree in Information Technology or a related field or have a minimum of 33 semester credit hours with a minimum of 15 technical or vocational hours in an IT or related discipline.
2. Are eligible to return to the last school attended.
3. Earned a 2.0 cumulative GPA.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System

	Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (45 Hours)

Students must meet these core requirements or approved upper-level substitutes.

Major Requirements	
I TEC 2313	Scripting I Credit Hours: 3
I TEC 2351	Web Fundamentals Credit Hours: 3
I TEC 2381	Forensics Fundamentals Credit Hours: 3
I TEC 3312	Scripting II Credit Hours: 3
I TEC 3335	Database Development Credit Hours: 3
I TEC 3365	Network Fundamentals
I TEC 4313	Emerging Information Technology Credit Hours: 3
I TEC 4342	Information Technology Project Management Credit Hours: 3
I TEC 4388	Senior Project in Information Technology Credit Hours: 3
CINF 3321	Information Systems Theory and Practice Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 3313	Organizational Communication Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
STAT 3308	Computational Statistics Credit Hours: 3
Additional Information	
At most, only 6 credits may be transferred toward the Major Requirements and IT Specialization. Lower-level credit given for any of the above courses may require students to take additional approved technical electives to satisfy the plan requirements.	
Additional Major Requirements Courses	
I TEC 4379 Internship in Information Technology or approved elective	

Elective Requirements (18 hours)

Electives

Students also take 9 hours of specialization electives and 9 hours of major electives which can be (2000-4000) level ITEC/CSCI courses and other electives as approved by the faculty adviser. It is the responsibility of the student to investigate and comply with prerequisites for all electives.

Additional Information

The specific courses beyond the Major Requirements to be included in the Candidate Plan of Study (CPS) will be selected by students with the approval of the faculty adviser.

Specialization Requirements (9 Hours)

Students must select one of the following three specializations in Information Technology (IT).

Forensics Specialization

Students interested in Computer Forensics must take the following three courses:

ITEC 4381	Computer Forensics
ITEC 4382	Registry & Internet Forensics
CRIM 4330	Criminal Investigation Credit Hours: 3

Web Design and Development Specialization

Students interested in Web Design and Development must take the following course:

ITEC 4351	Web Design Credit Hours: 3
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Additional Information

In addition, students must take one course from each of the following options: CINF 4230 or ITEC 4352, and ARTS 2371 or ARTS 3360.

Information Technology Management and Administration Specialization

Students interested in Information Technology Management and Administration must take:

CSCI 4364	Computer Systems Administration Credit Hours: 3
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Information Technology Management and Administration Specialization Requirements

Students must take two of the following three classes:

ITEC 4335	Database Administration Credit Hours: 3
ITEC 4365	Network Administration Credit Hours: 3
ITEC 4366	Computer Security and Disaster Recovery Credit Hours: 3

Additional Information

Courses noted on the CPS as Major Requirements, Major Electives and IT Specialization must be completed with a grade of "C-" or better.

Interdisciplinary Studies B.A.S. with a major in Early Childhood Education - Educator of Young Children

The Bachelor of Applied Science (BAS) degree in Interdisciplinary Studies with a major in Early Childhood Education is a 120 credit hour 2+2 collaborative degree program with the community

college Associate of Applied Science degree in Child Development. Coursework emphasizes children from birth through age five, although several courses will cover children's learning through the primary grades to meet the needs of persons who also work with the school-age population within their programs and to meet National Association for the Education of Young Children (NAEYC) Teacher Education Accreditation requirements.

Course content will focus on teaching diverse learners, curriculum and assessment, instructional strategies, child development, family and community relations and leadership

skills. It will include multiple opportunities for firsthand field-based experiences and will be based on the NAEYC standards.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose one course from the list.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
MATH 1342	Elementary Statistical Methods Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
MATH 2413	Calculus I Credit Hours: 4
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3

BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose one course from the list.

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)

Choose one course from the list.

ARTS 1303	World Art Survey I Credit Hours: 3
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ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Transfer Technical/Vocational Requirements

Transfer Technical/Vocational Requirements

Additional Information

- Early Childhood/Child Development Elective

Major Requirements

Major Requirements	
ECED 1303	Children and Families Credit Hours: 3
ECED 1318	Nutrition, Health and Safety Credit Hours: 3
ECED 1354	Developmental Theories of Young Children Credit Hours: 3
ECED 4303	Child Guidance and Classroom Management for Young Children Credit Hours: 3
ECED 4305	Literacy Development Birth-Age 5 Credit Hours: 3
ECED 4306	Assessment of Young Children Birth-Age 5 Credit Hours: 3
ECED 4307	Mathematics and Science in Early Childhood Education Credit Hours: 3
ECED 4308	Creativity in Early Childhood Credit Hours: 3
ECED 4309	Advocacy and Parent Engagement Credit Hours: 3
ECED 4320	Play in Early Childhood Curriculum Credit Hours: 3
ECED 4321	Advanced Topics: Infants and Toddlers Credit Hours: 3
ECED 4322	Cultural Awareness for Young Children Credit Hours: 3
ECED 4323	Advanced Topics: Preschool Curriculum Credit Hours: 3
ECED 4326	Effective and Positive Classroom Interactions for Young Children Credit Hours: 3
ECED 4332	Teaching Young Children with Special Needs Credit Hours: 3
ECED 4377	Practicum Credit Hours: 3

Choose one course from the following

WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Elective Requirements**Choose four courses from the following:**

ECED 1311	Historical and Recent Trends in Early Childhood Education Credit Hours: 3
ECED 4324	Early Childhood Leadership, Program Development, and Management Credit Hours: 3
ECED 4325	Early Childhood Program Development & Management I - Leadership Strategies and Staff Development Credit Hours: 3
ECED 4333	Advanced Studies in Young Children with Special Needs Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
LLLS 4348	Selecting Literature for the Very Young Child Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SILC 4318	Linguistic Diversity in Young Children Credit Hours: 3

Additional Information

Check prerequisites before enrolling in any courses.

General Requirements

- Students must complete at least 120 semester credit hours. A minimum of 45 hours of the 120 semester hours must be advanced (3000-4000 level) course

work according to the requirements of the respective major.

- Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements in the UHCL catalog).
- Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - Six hours of U.S. History (three hours may be Texas History).
 - Six hours of Constitutions of the United States and Texas).
 - Students must demonstrate writing proficiency by completing nine hours of lower-level (1000-2000 level) and upper-level (3000-4000 level) English composition course credit with a minimum grade of "C-" or better. Some majors may require higher grades in English composition.
- Students must complete at least 25% of the credit hours required for the degree (i.e., 30 semester credit hours for a 120 credit hour program) through instruction offered by UHCL to fulfill the Southern Association of Colleges and Schools (SACS) residency requirements.
- Students must complete the final 30 semester hours of 3000 and 4000 level coursework in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework in the major in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on coursework completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades

of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Interdisciplinary Studies B.S. with Core Subjects 4-8 Certification

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3

CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3

Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements

College Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession

	Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Major Requirements

Major Requirements	
Choose two Natural Science courses in addition to the University Core	
HIST 2301	Texas History Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4346	Literacy Methods for 4-8 Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
MATH 3304	Algebra Through Technology Credit Hours: 3
MATH 3306	Problem Solving Credit Hours: 3
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3
Choose one from the following list:	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Choose one course from the following:	
HIST 3325	Colonial America Credit Hours: 3
HIST 3327	The New American Nation Credit Hours: 3
HIST 3330	Civil War and Reconstruction Credit Hours: 3
Choose one course from the following:	
LLLS 4345	Survey of Children's Literature Credit Hours: 3

LLLS 4347	Multicultural Literature Credit Hours: 3
LLLS 4352	Young Adult Literature and Reading Credit Hours: 3
Choose one course from the following:	
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4314	Teaching Geography Credit Hours: 3

Pedagogy Requirements

Courses	
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
TCED 4331	Social Studies Methods for Grades 4-8 Credit Hours: 3
TCED 4332	Science Methods for Grades 4-8 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information	
<ul style="list-style-type: none"> GPA of 2.500 or higher required in Major Requirement coursework (excluding TCED 4304 and TCED 4100). Grade of B- or better required in WRIT 3304/3307. All courses outside the University Core must be C- or better. Check prerequisites before enrolling in any courses. In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy. 	

Interdisciplinary Studies B.S. with Core Subjects

4-8 and ESL Supplemental Certification

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3

GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3

Social and Behavioral Sciences (3 hours)

Choose one course from the list.

ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3

Component Area Option (6 hours)

Two 1- hour Life and Physical Science Labs

COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements**College Core Requirements**

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Major Requirements

Major Requirements	
Choose two Natural Science courses in addition to the University Core	
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4346	Literacy Methods for 4-8 Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
MATH 3304	Algebra Through Technology Credit Hours: 3
SILC 4310	Foundations of Bilingual and ESL Education Credit Hours: 3
SILC 4311	ESL Methods Credit Hours: 3
SILC 4312	Content-Based ESL Credit Hours: 3
SILC 4313	Language Learning Credit Hours: 3
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3
Choose one from the following list:	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Choose one course from the following:	
LITR 3334	Mythology Credit Hours: 3
LITR 3361	Shakespeare Credit Hours: 3
LITR 4304	Workshop in Poetics Credit Hours: 3
LITR 4312	Chaucer Credit Hours: 3
LITR 4320	The Romantic Movement in British Literature

	Credit Hours: 3
LITR 4322	Victorian Literature Credit Hours: 3
LITR 4328	The American Renaissance Credit Hours: 3
LITR 4330	American Realism and Naturalism Credit Hours: 3
LITR 4335	American Modernism Credit Hours: 3
LITR 4370	Tragedy Credit Hours: 3
LLLS 4345	Survey of Children's Literature Credit Hours: 3

Pedagogy Requirements

Courses	
TCED 4331	Social Studies Methods for Grades 4-8 Credit Hours: 3
TCED 4332	Science Methods for Grades 4-8 Credit Hours: 3
TCED 4333	Mathematics Methods for Grades 4-8 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9

Additional Information

- GPA of 2.500 or higher required in SILC coursework
- Grade of B- or better required in WRIT 3304/3307
- All courses outside the University Core must be C- or better. Check prerequisites before enrolling in any courses
- In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy

Interdisciplinary Studies B.S. with Core Subjects

EC-6 Certification (Early Childhood Concentration)

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3

GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3

CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements

College Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Major Requirements

Major Requirements	
Choose two Natural Science courses in addition to the University Core	
ECED 1303	Children and Families Credit Hours: 3

ECED 1354	Developmental Theories of Young Children Credit Hours: 3
ECED 4302	Integrated Curriculum for Young Children Credit Hours: 3
ECED 4311	Reading Development in Young Children Credit Hours: 3
ECED 4314	Observational/Developmental Assessment of Young Children Credit Hours: 3
HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
LLS 4311	Survey of Reading Credit Hours: 3
LLS 4344	Literacy Methods for EC-6 Credit Hours: 3
LLS 4345	Survey of Children's Literature Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3
Choose ONE from the following list:	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Pedagogy Requirements

Pedagogy Requirements	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3

TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information	
<ul style="list-style-type: none"> GPA of 2.500 or higher required in ECED coursework. Grade of B- or better required in WRIT 3304/3307. All courses outside the University Core must be C- or better. Check prerequisites before enrolling in any courses. In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy. 	

Interdisciplinary Studies B.S. with Core Subjects EC-6 Certification (Reading Concentration)

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II

	Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	

HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements

College Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations

	Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Major Requirements

Major Requirements	
Choose two Natural Science courses in addition to the University Core	
HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4313	Corrective and Remedial Reading Credit Hours: 3
LLLS 4332	Diagnostic and Prescriptive Reading Credit Hours: 3
LLLS 4344	Literacy Methods for EC-6 Credit Hours: 3
LLLS 4345	Survey of Children's Literature Credit Hours: 3
LLLS 4347	Multicultural Literature Credit Hours: 3
LLLS 4379	Practicum in Clinical Reading Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
MATH 3306	Problem Solving Credit Hours: 3
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3
Choose one from the following list:	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Pedagogy Requirements

Pedagogy Requirements	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information <ul style="list-style-type: none"> • GPA of 2.500 or higher required in LLLS coursework. • Grade of B- or better required in WRIT 3304/3307. • All courses outside the University Core must be C- or better. • Check prerequisites before enrolling in any courses. • In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy. 	

Interdisciplinary Studies B.S. with Core Subjects EC-6 and Bilingual Supplemental Certification

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3

PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements

College Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Major Requirements

Major Requirements	
Choose TWO Natural Science courses in addition to the University Core	
HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4344	Literacy Methods for EC-6 Credit Hours: 3
LLLS 4345	Survey of Children's Literature Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
SILC 4301	Spanish for Bilingual Teachers Credit Hours: 3
SILC 4310	Foundations of Bilingual and ESL Education Credit Hours: 3
SILC 4313	Language Learning Credit Hours: 3
SILC 4316	Bilingual Curriculum in the Content Areas Credit Hours: 3

SILC 4351	Development of Biliteracy Credit Hours: 3
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3
Choose one from the following list:	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Pedagogy Requirements

Pedagogy Requirements	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information <ul style="list-style-type: none"> GPA of 2.500 or higher required in SILC coursework. Grade of B- or better required in WRIT 3304/3307. All courses outside the University Core must be C- or better. Check prerequisites before enrolling in any courses. In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy. 	

Interdisciplinary Studies B.S. with Core Subjects EC-6 and ESL Supplemental Certification

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3

PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology

	Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements

College Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Major Requirements

Major Requirements	
Choose two Natural Science courses in addition to the University Core	
HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4344	Literacy Methods for EC-6 Credit Hours: 3
LLLS 4345	Survey of Children's Literature Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3

MATH 1351	Mathematics for Teachers II Credit Hours: 3
SILC 4302	Introduction to the Study of Languages Credit Hours: 3
SILC 4310	Foundations of Bilingual and ESL Education Credit Hours: 3
SILC 4311	ESL Methods Credit Hours: 3
SILC 4312	Content-Based ESL Credit Hours: 3
SILC 4313	Language Learning Credit Hours: 3
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3
Choose one from the following list:	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Pedagogy Requirements

Pedagogy Requirements	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information	
<ul style="list-style-type: none"> • GPA of 2.500 or higher required in SILC coursework. • Grade of B- or better required in WRIT 3304/3307. • All courses outside the University Core must be C- or better. • Check prerequisites before enrolling in any courses. • In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy. 	

Interdisciplinary Studies B.S. with Core Subjects EC-6 and Special Education EC-12 Certification

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3

CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3

Social and Behavioral Sciences (3 hours)

Choose one course from the list.

ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3

Component Area Option (6 hours)

Two 1- hour Life and Physical Science Labs

COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements**College Core Requirements**

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Major Requirements**Major Requirements**

Choose two Natural Science courses in addition to the University Core	
HLTH 3302	Health and Physical Education – EC-6 Survey Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4313	Corrective and Remedial Reading Credit Hours: 3
LLLS 4332	Diagnostic and Prescriptive Reading Credit Hours: 3
LLLS 4344	Literacy Methods for EC-6 Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
SPED 4311	Assessment in Special Education Credit Hours: 3
SPED 4312	Diagnostic Instruction for Learners With Special Needs Credit Hours: 3
SPED 4313	Individualizing Instruction for Students With Disabilities Credit Hours: 3
SPED 4321	Implementing Positive Behavior Supports Credit Hours: 3
SPED 4332	Early Childhood Special Education Credit Hours: 3
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3
Choose one from the following list	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Pedagogy Requirements

Pedagogy Requirements	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3

TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9

Additional Information

- GPA of 2.500 or higher required in SPED coursework.
- Grade of B- or better required in WRIT 3304/3307.
- All courses outside the University Core must be C- or better.
- Check prerequisites before enrolling in any courses.
- In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy.

Interdisciplinary Studies B.S. with Science 4-8 Certification

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
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Life and Physical Sciences (6 hours)

BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3

PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	

COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1
BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1

College Core Requirements

College Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Major Requirements

Major Requirements	
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
ENSC 1101	Laboratory for Environmental Science I Credit Hours: 1
ENSC 1301	Environmental Science I Credit Hours: 3

GEOL 1103	Laboratory for Physical Geology Credit Hours: 1
GEOL 1104	Laboratory for Historical Geology Credit Hours: 1
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
GEOL 3305	Fundamentals of Earth Science Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
PHYS 1101	Laboratory for College Physics I Credit Hours: 1
PHYS 1102	Laboratory for College Physics II Credit Hours: 1
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3
Choose one from the following list:	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Pedagogy Requirements

Courses	
TCED 4332	Science Methods for Grades 4-8 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9

Additional Information

- GPA of 2.500 or higher required in Natural Science coursework.
- Grade of B- or better required in WRIT 3304/3307.
- All courses outside the University Core must be C- or better. Check prerequisites before enrolling in any courses.
- In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy.

Interdisciplinary Studies B.S. with Social Studies 4-8 Certification

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3

CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I

	Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ECON 2302	Principles of Microeconomics Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements

College Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Major Requirements

Major Requirements	
Choose two Natural Science courses in addition to the University Core	

GEOG 1301	Modern Physical Geography Credit Hours: 3
GEOG 1302	Global Geography Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4314	Teaching Geography Credit Hours: 3
HIST 2301	Texas History Credit Hours: 3
HIST 3325	Colonial America Credit Hours: 3
HIST 3327	The New American Nation Credit Hours: 3
HIST 3330	Civil War and Reconstruction Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4345	Survey of Children's Literature Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3
Choose one from the following list:	
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Pedagogy Requirements

Courses	
TCED 4331	Social Studies Methods for Grades 4-8 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching

Credit Hours: 9

Additional Information

- GPA of 2.500 or higher required in GEOG and HIST coursework.
- Grade of B- or better required in WRIT 3304/3307.
- All courses outside the University Core must be C- or better. Check prerequisites before enrolling in any courses.
- In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy.

Legal Studies B.S.

The undergraduate degree in Legal Studies leads to the Bachelor of Science. It is the goal of the Legal Studies program to introduce students to the study of law and the workings of the American legal system as a foundation for a career as a paralegal professional or the more advanced study of law.

The degree program has three principal educational objectives:

1. To educate students in the legal principles that underpin substantive and procedural areas of law such as torts, family law, probate, criminal law, the law of real property, dispute resolution, and civil litigation;
2. To equip students with the legal research, writing and critical thinking skills necessary to foster their continuing independent study of the law beyond the classroom; and
3. To raise students' awareness and understanding of the important role that the system of trial by jury, the appellate process and dispute resolution play in preserving the governing principles of a democratic society.

A minimum of 60 upper-level (33XX and 43XX) hours and a total of 120 hours are required for the baccalaureate degree in Legal Studies.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose one course from the approved list:	
MATH 1314	College Algebra Credit Hours: 3
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
MATH 1325	Calculus for Business and Social Sciences Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
MATH 1342	Elementary Statistical Methods Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
MATH 2413	Calculus I Credit Hours: 4
Life and Physical Sciences (6 hours)	
Choose two courses from the approved list:	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3

BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3

ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (18 hours)

Choose from the following courses, or their approved equivalents.

Core Requirements (18 hours)	
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3

Additional Information

May replace ACCT 2302 and/or Math 1324 with an additional WRIT, ENGL, or Foreign Language not used to satisfy any other core curriculum requirement

Major Requirements (30 hours)

Major Requirements (30 hours)	
LEGL 3307	Legal Writing and Appellate Process Credit Hours: 3
LEGL 3313	Introduction to Law and the American Legal System Credit Hours: 3
LEGL 3351	Legal Research Credit Hours: 3
LEGL 3353	Introduction to the Texas Rules of Civil Procedure Credit Hours: 3
LEGL 4352	Family Law and Procedure Credit Hours: 3
LEGL 4354	Property Transactions Credit Hours: 3
LEGL 4355	Criminal Law and Procedure Credit Hours: 3
LEGL 4356	Torts Credit Hours: 3

LEGL 4359	Wills, Probate and Estate Administration Credit Hours: 3
LEGL 4375	Professional Development for Legal Studies Students Credit Hours: 3

Elective Requirements (30 hours)

Major Electives (6 hours)

Choose two of any upper-level (33XX or 43XX) LEGL rubric beyond the major requirements.

Elective Requirement (3 hours)

Choose one of the following:

ENVR 4315	Introduction to Environmental Law Credit Hours: 3
MGMT 4326	Effective Negotiations Credit Hours: 3

Additional Information

or any upper-level (33xx or 43xx) of the following rubric: ACCT, FINC, ISAM, MGMT, MKTG.

Elective Requirement (3 hours)

Choose one: Any upper-level (33XX or 43XX) of the following rubric: ARTS, HIST, HUMN, SOCI, POLS.

Elective Requirement (6 hours)

Choose two of the following:

WRIT 3307	Advanced Writing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3

General Electives (12 hours)

Choose four of any upper-level (33XX or 43XX) courses offered by the Colleges of Business, Human Sciences & Humanities, Science & Computer Engineering, or Education.

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work

Literature B.A.

The undergraduate major in Literature leads to the Bachelor of Arts (B.A.) degree. Students in the major may select from a wide range of courses in American, British, European, or World literature. Students who plan to teach English in secondary schools should select this major with a certification option. For information, contact the [HSH Office of Advising](#).

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

Choose ONE of the following courses.

MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3

Life and Physical Sciences (6 hours)

Choose TWO of the following courses.

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose ONE of the following courses.

HUMN 1301	Humanities
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Credit Hours: 3

LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)

Choose ONE of the following courses.

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3

U.S. History (6 hours)

HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3

Government/ Political Science (6 hours)

POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3

Social Behavioral Sciences (3 hours)

Choose ONE of the following courses.

ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3

Public Speaking (3 hours)

COMM 1315	Public Speaking Credit Hours: 3
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Component Area Options (3 hours)

Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.

PSYC 1100	Learning Frameworks Credit Hours: 1
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College Core Requirements (3 hours)

48 hours of upper-level credit must be "C" or better.

Core Requirements (3 hours)

Choose ONE of the following courses (WRIT 3305 recommended):

WRIT 3305	Writing for the Humanities Credit Hours: 3
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WRIT 3307	Advanced Writing Credit Hours: 3
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Major Requirements (36 hours)**Choose ONE of the following courses.**

HUMN 3374	Critical Inquiry Credit Hours: 3
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HUMN 3375	Ideas in Transition Credit Hours: 3
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PHIL 3331	Ethics Credit Hours: 3
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PHIL 4314	The Great Philosophers I Credit Hours: 3
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PHIL 4315	The Great Philosophers II Credit Hours: 3
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Choose ONE of the following courses.

ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
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ANTH 4352	World Prehistory and Archaeology Credit Hours: 3
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PSYC 3331	Theories of Personality Credit Hours: 3
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SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3
WGST 4308	Perspectives in Women's and Gender Studies Credit Hours: 3

Literature Courses

LITR 3301	Literary Studies: Genres and Critical Perspectives Credit Hours: 3
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2300-level British, American, or World courses

Choose TWO 2300 level courses (LITR 2321 and LITR 2326 recommended).

LITR 2321	British Literature Credit Hours: 3
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LITR 2326	American Literature Credit Hours: 3
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American Literature (1 of 2)

Choose ONE of the following courses.

LITR 4328	The American Renaissance Credit Hours: 3
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LITR 4330	American Realism and Naturalism Credit Hours: 3
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LITR 4334	The American Novel Credit Hours: 3
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LITR 4335	American Modernism Credit Hours: 3
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American Literature (2 of 2)

Choose ONE of the following courses.

LITR 4326	Early American Literature Credit Hours: 3
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LITR 4336	Contemporary American Literature Credit Hours: 3
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LITR 4338	American Minority Literature Credit Hours: 3
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LITR 4340	American Immigrant Literature Credit Hours: 3
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British Literature

Choose any TWO LITR 3300/4300 level courses in British Literature, including at least ONE from LITR 3361, LITR 4312, and/or LITR 4316

LITR 3361	Shakespeare Credit Hours: 3
LITR 4312	Chaucer Credit Hours: 3
LITR 4316	16th- and 17th-Century British Literature Credit Hours: 3
LITR 4318	Restoration and 18th-Century British Literature Credit Hours: 3
LITR 4320	The Romantic Movement in British Literature Credit Hours: 3
LITR 4321	Jane Austen Credit Hours: 3
LITR 4322	Victorian Literature Credit Hours: 3
LITR 4324	Rise and Development of the British Novel Credit Hours: 3

World Literature

Choose ONE LITR 3300/4300 level course in World Literature. This course may not satisfy any other degree requirement.

LITR 3334	Mythology Credit Hours: 3
LITR 4326	Early American Literature Credit Hours: 3
LITR 4338	American Minority Literature Credit Hours: 3
LITR 4340	American Immigrant Literature Credit Hours: 3
LITR 4342	Modern and Contemporary Drama Credit Hours: 3
LITR 4344	The Modern Novel Credit Hours: 3
LITR 4345	Contemporary Novel Credit Hours: 3
LITR 4346	Medieval Literature Credit Hours: 3
LITR 4350	Masterpieces of 19th-Century European Literature Credit Hours: 3
LITR 4352	Masterpieces of 20th-Century European Literature Credit Hours: 3

Pre-1800 Literature

Choose ONE LITR 3300/4300 level course in Pre-1800 Literature. This course may not satisfy any other degree requirement.

LITR 3334	Mythology Credit Hours: 3
LITR 3361	Shakespeare Credit Hours: 3
LITR 4312	Chaucer Credit Hours: 3
LITR 4316	16th- and 17th-Century British Literature Credit Hours: 3
LITR 4326	Early American Literature Credit Hours: 3
LITR 4346	Medieval Literature Credit Hours: 3
LITR 4370	Tragedy Credit Hours: 3

Literature electives

Choose THREE 3300/4300 level Literature courses. All 3300/4300 level Literature courses may be used as electives, though no single course can be used for two requirements. Depending on content and design, some of the following LITR electives may be approved in advance by the program to fill other genre requirements. For further information, please contact the LITR program director prior to registering for courses.

LITR 3338	Modern Fantasy Literature Credit Hours: 3
LITR 3371	Creative Writing Credit Hours: 3
LITR 4301	Literary Theory Credit Hours: 3
LITR 4304	Workshop in Poetics Credit Hours: 3
LITR 4356	Modern American and British Poetry Credit Hours: 3
LITR 4360	Film as Literature Credit Hours: 3
LITR 4362	The Literature of Adolescence Credit Hours: 3
LITR 4364	Women in Literature Credit Hours: 3
LITR 4368	Literature of the Future Credit Hours: 3
LITR 4371	Comedy Credit Hours: 3

Electives (33 hours)

Lower-level electives (12 hours) – any 1300/2300 level courses at UHCL that are not used to satisfy any other degree requirements. Upper-level electives (21 hours) may include any 3300/4300 level courses at UHCL that are not used to satisfy any other degree requirements.

Literature B.A. with English Language Arts and Reading 4-8 Certification

Note: This degree requires a minimum of 136 credit hours.

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

Choose ONE of the following courses.

MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3

Life and Physical Sciences (6 hours)

Choose TWO of the following courses.

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II

	Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose ONE of the following courses.

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)

Choose ONE of the following courses.

ARTS 1303	World Art Survey I Credit Hours: 3
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ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College of Human Sciences and Humanities Core Requirements (9 hours)

48 hours of upper-level credit must be "C" or better.

Human Science Requirement (3 hours)	
Choose ONE of the following courses.	
ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
ANTH 4352	World Prehistory and Archaeology Credit Hours: 3
PSYC 3331	Theories of Personality Credit Hours: 3
SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3
WGST 4308	Perspectives in Women's and Gender Studies Credit Hours: 3
Core Requirement (3 hours)	
Choose ONE of the following courses.	
WRIT 3305	Writing for the Humanities Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Additional Information	
Grade of "C+" or better is required.	
Humanities Requirements (3 hours)	
Choose ONE of the following courses.	
HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

College of Education Core Requirements (19 hours)

Core Requirements	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Teacher Education Program (TEP) Admission Requirements

- Completion of 60 semester credit hours.
- Completion of prerequisite coursework (EDUC 4310, INST 3313, SILC 4315, and TCED 4102.)
- Completion of public speaking requirement.
- Completion of Basic Skills in Reading, Mathematics, and Writing.
- 2.750 GPA overall or in the last 60 semester credit hours.
- Completion of 12 semester credit hours in the subject-specific content area for target teacher certification.
- \$37 TEA Admission Fee
- Application for admission to the [Teacher Education Program \(TEP\)](#).

Major Requirements (54 hours)

2300-level American or British Literature course

Choose TWO 2300 level courses (LITR 2321 and LITR 2326 recommended).	
LITR 2321	British Literature Credit Hours: 3
LITR 2326	American Literature Credit Hours: 3
American Literature	
Choose ONE 3300/4300 level course in American Literature. This course may not satisfy any other degree requirement. Recommended courses are (LITR 4328, LITR 4330, LITR 4334, and LITR 4334)	
LITR 4326	Early American Literature Credit Hours: 3
LITR 4328	The American Renaissance Credit Hours: 3
LITR 4330	American Realism and Naturalism Credit Hours: 3
LITR 4334	The American Novel Credit Hours: 3
LITR 4335	American Modernism Credit Hours: 3
LITR 4336	Contemporary American Literature Credit Hours: 3
LITR 4338	American Minority Literature Credit Hours: 3
LITR 4340	American Immigrant Literature Credit Hours: 3
British Literature	
Choose ONE 3300/4300 level course in British Literature. This course may not satisfy any other degree requirement.	
LITR 3361	Shakespeare Credit Hours: 3
LITR 4312	Chaucer Credit Hours: 3
LITR 4316	16th- and 17th-Century British Literature Credit Hours: 3
LITR 4318	Restoration and 18th-Century British Literature Credit Hours: 3
LITR 4320	The Romantic Movement in British Literature Credit Hours: 3
LITR 4321	Jane Austen Credit Hours: 3

LITR 4322	Victorian Literature Credit Hours: 3
LITR 4324	Rise and Development of the British Novel Credit Hours: 3
British Literature (pre-1700)	
Choose ONE 3300/4300 level course in pre-1700 British Literature. This course may not satisfy any other degree requirement.	
World or Multicultural Literature	
Choose ONE 3300/4300 level course in World or Multicultural Literature. This course may not satisfy any other degree requirement.	
LITR 3334	Mythology Credit Hours: 3
LITR 4326	Early American Literature Credit Hours: 3
LITR 4338	American Minority Literature Credit Hours: 3
LITR 4340	American Immigrant Literature Credit Hours: 3
LITR 4342	Modern and Contemporary Drama Credit Hours: 3
LITR 4344	The Modern Novel Credit Hours: 3
LITR 4345	Contemporary Novel Credit Hours: 3
LITR 4346	Medieval Literature Credit Hours: 3
LITR 4350	Masterpieces of 19th-Century European Literature Credit Hours: 3
LITR 4352	Masterpieces of 20th-Century European Literature Credit Hours: 3
Pre-1800 Literature	
Choose ONE 3300/4300 level course in Pre-1800 Literature. This course may not satisfy any other degree requirement.	
LITR 3334	Mythology Credit Hours: 3
LITR 3361	Shakespeare Credit Hours: 3
LITR 4312	Chaucer Credit Hours: 3
LITR 4316	16th- and 17th-Century British Literature

	Credit Hours: 3
LITR 4326	Early American Literature Credit Hours: 3
LITR 4346	Medieval Literature Credit Hours: 3
LITR 4370	Tragedy Credit Hours: 3
Literature elective	
Choose THREE 3300/4300 level Literature courses. All 3300/4300 level Literature courses may be used as electives, though no single course can be used for two requirements. Depending on content and design, some of the following LITR electives may be approved in advance by the program to fill other genre requirements. For further information, please contact the LITR program director prior to registering for courses.	
LITR 3338	Modern Fantasy Literature Credit Hours: 3
LITR 3371	Creative Writing Credit Hours: 3
LITR 4301	Literary Theory Credit Hours: 3
LITR 4304	Workshop in Poetics Credit Hours: 3
LITR 4356	Modern American and British Poetry Credit Hours: 3
LITR 4360	Film as Literature Credit Hours: 3
LITR 4362	The Literature of Adolescence Credit Hours: 3
LITR 4364	Women in Literature Credit Hours: 3
LITR 4368	Literature of the Future Credit Hours: 3
LITR 4371	Comedy Credit Hours: 3
Additional Courses	
Two natural science courses in addition to the university core.	
LITR 3301	Literary Studies: Genres and Critical Perspectives Credit Hours: 3
LITR 3302	Principles of Composition Credit Hours: 3
LLS 4311	Survey of Reading Credit Hours: 3
LLS 4346	Literacy Methods for 4-8 Credit Hours: 3

LLLS 4351	Reading in Content Subjects Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3
Additional Information GPA of 2.500 or higher required in LITR and LLLS coursework.	

Pedagogy Requirements (12 hours)

Courses	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information	
<ul style="list-style-type: none"> Enrollment in the courses listed above requires admission to the TEP 3.000 GPA required in pedagogy coursework TCED 4378 Pre-Service Internship I must be taken in the long semester immediately preceding the final semester TCED 4978 Pre-Service Internship II must be taken in the final semester 	

Teacher Certification Requirements

- Passing scores on the appropriate state assessments (Texas Examinations of Educator Standards [TExES]) are required for recommendation for teacher certification
 - 4-8 English Language Arts and Reading TExES #117
 - Science of Teaching Reading TExES #293
 - EC-12 Pedagogy and Professional Responsibilities TExES #160
- All courses outside the University Core must be "C-" or better unless otherwise stated

Literature B.A. with English Language Arts and Reading 7-12 Certification

Note: This degree requires a minimum of 127 credit hours.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3

CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I

	Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College of Human Sciences and Humanities Core Requirements (9 hours)

48 hours of upper-level credit must be "C" or better.

Human Science Requirement (3 hours)

Choose ONE of the following courses.

ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
ANTH 4352	World Prehistory and Archaeology Credit Hours: 3
PSYC 3331	Theories of Personality Credit Hours: 3
SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3
WGST 4308	Perspectives in Women's and Gender Studies Credit Hours: 3

Core Requirement (3 hours)

Choose ONE of the following courses.

WRIT 3305	Writing for the Humanities Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Additional Information

Grade of "C+" or better is required.

Humanities Requirements (3 hours)

Choose ONE of the following courses.

HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

College of Education Core Requirements (19 hours)

Core Requirements

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3

SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Teacher Education Program (TEP) Admission Requirements

- Completion of 60 semester credit hours.
- Completion of prerequisite coursework (EDUC 4310, INST 3313, SILC 4315, and TCED 4102.)
- Completion of public speaking requirement.
- Completion of Basic Skills in Reading, Mathematics, and Writing.
- 2.750 GPA overall or in the last 60 semester credit hours.
- Completion of 12 semester credit hours in the subject-specific content area for target teacher certification.
- \$37 TEA Admission Fee
- Application for admission to the [Teacher Education Program \(TEP\)](#).

Major Requirements (45 hours)

2300-level American or British Literature courses

Choose TWO 2300 level courses (LITR 2321 and LITR 2326 recommended).

LITR 2321	British Literature Credit Hours: 3
LITR 2326	American Literature Credit Hours: 3

American Literature

Choose ONE 3300/4300 level course in American Literature. This course may not satisfy any other degree requirement.

British Literature

Choose ONE 3300/4300 level course in British Literature. This course may not satisfy any other degree requirement.

World or Multicultural Literature

Choose ONE 3300/4300 level course in World or Multicultural Literature. This course may not satisfy any other degree requirement.

Pre-1800 Literature

Choose ONE 3300/4300 level course in pre-1800 Literature. This course may not satisfy any other degree.

Literature electives

Choose TWO 3300/4300 LITR level courses. These courses may not satisfy any other degree requirements.

Additional Courses

LITR 3301	Literary Studies: Genres and Critical Perspectives Credit Hours: 3
LITR 3302	Principles of Composition Credit Hours: 3
LITR 3361	Shakespeare Credit Hours: 3
LLLS 4313	Corrective and Remedial Reading Credit Hours: 3
LLLS 4332	Diagnostic and Prescriptive Reading Credit Hours: 3
LLLS 4352	Young Adult Literature and Reading Credit Hours: 3
TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3

Additional Information

GPA of 2.500 or higher is required in LITR and LLLS coursework.

Pedagogy Requirements (15 hours)**Courses**

LLLS 4364	Methods in Secondary English/ Language Arts Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3

TCED 4978

Pre-Service Internship II/Clinical Teaching
Credit Hours: 9

Additional Information

- Enrollment in the courses listed above requires admission to the TEP.
- 3.000 GPA required in pedagogy coursework.
- TCED 4378 Pre-Service Internship I must be taken in the long semester immediately preceding the final semester.
- TCED 4978 Pre-Service Internship II must be taken in the final semester.

Teacher Certification Requirements

- Passing scores on the appropriate state assessments (Texas Examinations of Educator Standards [TExES] are required for recommendation for teacher certification.
 - 7-12 English Language Arts and Reading TExES #231
 - EC-12 Pedagogy and Professional Responsibilities TExES #160
- All courses outside the University Core must be "C-" or better unless otherwise stated.

Management B.S.

In today's rapidly changing business environment, you deserve the best education as you work towards a long career in management. Pursuing a Bachelor of Science in Management, at the University of Houston-Clear Lake, is one way to achieve this goal. Our College of Business is accredited by the Association to Advance Collegiate Schools of Business International. This accreditation ensures that you will acquire the necessary leadership, analytical and problem-solving skills that can be applied to areas such as personnel management, production, small business management, nonprofit and public administration and retail and sales management.

This degree plan allows you to learn the foundations of management by selecting an area of specialization such as entrepreneurship and small business management, leadership, human resource management, and environmental management. To further understand the art and science of management, you will complete electives in negotiations, teamwork and leadership, dispute resolution, organizational communication, human resources and employee training. Upon graduation, you will possess the expertise and training required to face a complex collection of challenges that emerge in a rapidly changing business environment. Selecting this degree plan will enable you to be workforce ready with the skills that employers" desire.

The degree in Management leads to the Bachelor of Science. A minimum of 57 upper-level (33XX and 43XX) hours and a total of 120 hours are required for the baccalaureate degree.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Additional Information Grades must be C- or higher.	
Mathematics (3 hours)	
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
Additional Information Grade must be C- or higher.	
Life and Physical Sciences (6 hours)	
Choose two courses from the approved list:	
ASTR 1303	Stars and Galaxies

	Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3

PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
Additional Information	
Other courses may meet this requirement, however, ECON 2301 will still be required for all Business majors.	
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses constitute the business core and are required of all business students.

No more than 6 hours of grades in the range of

D+, D or D- are permitted in upper-level (33XX and 43XX) Business Core Requirements.

Core Requirements for Business Majors (48 hours)

ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3

Additional Information

MGMT 4312 Capstone course--requires permission.

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Major Requirements (21 hours)

All courses within the Major Requirements must be completed with a grade of C- or better. A minimum cumulative GPA of 2.0 or higher is required to graduate. Management majors may take any 15 hours of upper-level (33XX and 43XX) management electives or select one of the four of the concentrations offered.

Required two courses (6 hours)

MGMT 3331	Human Resource Management Credit Hours: 3
MGMT 4354	Organizational Behavior Theory and Application Credit Hours: 3

Management Electives (15 hours)

Choose any 5 upper-level (33XX or 43XX) MGMT courses beyond those already required (15 hours) OR Complete one of the Management Concentrations (15 hours).

Additional Information

Students can: (1) select a concentration OR (2) take five upper-level management elective courses of their choice.

Elective Requirements (9 hours)

Elective Requirements

Any 3 upper-level (33XX or 43XX) courses offered by Colleges of Business, Human Sciences & Humanities & Science & Engineering or Education.

Management Concentrations (optional)

1) Entrepreneurship & Small Business Concentration (15 hours)

Entrepreneurship & Small Business Concentration

Required two courses (6 hours)	
MGMT 4336	Principles of Entrepreneurship Credit Hours: 3
MGMT 4337	Applied Small and Family Business Management Credit Hours: 3

Choose three courses from the list (9 hours):

MKTG 4333	Marketing for Entrepreneurs Credit Hours: 3
MGMT 3313	Organizational Communication Credit Hours: 3
MGMT 3341	Human Resource Planning, Staffing and Selection Credit Hours: 3
MGMT 4326	Effective Negotiations Credit Hours: 3
MGMT 4353	International Business Management Credit Hours: 3
MGMT 4371	Seminar on the Social Responsibility of Business Credit Hours: 3
MGMT 4391	Selected Topics in Management Credit Hours: 3

Management Concentration (optional)

2) Leadership Concentration (15 hours)

Leadership Concentration

Required two courses (6 hours)	
MGMT 4327	Leadership Credit Hours: 3
MGMT 4334	Leading Teams Credit Hours: 3

Choose two courses from the list (6 hours):

LEGL 4353	Dispute Resolution Credit Hours: 3
MGMT 3313	Organizational Communication Credit Hours: 3
MGMT 4326	Effective Negotiations Credit Hours: 3

MGMT 4328	Cross Cultural and International Leadership Credit Hours: 3
MGMT 4332	Organizational Design and Learning Credit Hours: 3
MGMT 4341	Leadership in a Global Business Environment Credit Hours: 3
MGMT 4356	Employee Training and Organizational Development Credit Hours: 3

Additional Information

May replace LEGL 4353 with MGMT 4391 special topics course titled Dispute Resolution.

May replace MGMT 4326 with MGMT 4391 special topics course titled Effective Negotiations.

Management Elective (3 hours)

Any upper-level (33XX or 43XX) MGMT course not already taken (3 hours).

Management Concentration (optional)**3) Human Resource Management Concentration (15 hours)****Human Resource Management Concentration**

Required three courses (9 hours)

MGMT 3341	Human Resource Planning, Staffing and Selection Credit Hours: 3
MGMT 3351	Wage and Salary Administration Credit Hours: 3
MGMT 4325	Legal Concepts for Human Resource Professionals Credit Hours: 3

Choose one course from the list (3 hours):

MGMT 4316	Human Resource Management Information Systems Credit Hours: 3
MGMT 4326	Effective Negotiations Credit Hours: 3

MGMT 4333	Collective Bargaining in the Public Sector Credit Hours: 3
MGMT 4351	Industrial Labor Relations Credit Hours: 3
MGMT 4356	Employee Training and Organizational Development Credit Hours: 3
LEGL 4353	Dispute Resolution Credit Hours: 3

Additional Information

May replace LEGL 4353 with MGMT 4391 special topics course titled Dispute Resolution.

Management Elective (3 hours)

Any upper-level (33XX or 43XX) MGMT course not already taken (3 hours).

Management Concentration (optional)**4) Environmental Management Concentration (15 hours)****Environmental Management Concentration**

Required two courses (6 hours)

ENVR 3311	Foundations of Environmental Management Credit Hours: 3
ENVR 4315	Introduction to Environmental Law Credit Hours: 3

Environmental Management Electives (6 hours)

Choose two courses from the ENVR rubric 4,000 level (6 hours).

Management Elective (3 hours)

Any upper-level (33XX or 43XX) MGMT course not already taken (3 hours).

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level

(3000–4000 level) coursework: (1) in the major and (2) in residence at UHCL.

- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Management Information Systems B.S.

The Bachelor of Science in Management Information Systems is designed to equip students with the necessary knowledge, skills and abilities required to proficiently analyze, design, develop and implement organizational information systems.

The degree coursework is comprised of core business courses (in areas such as accounting, marketing and finance) as well as information systems courses (in areas such as web application development, database applications development, computer networks design and administration, and business applications programming). This coursework prepares students to pursue careers as business application developers, database application developers, network designers and administrators, web application developers and technical support personnel.

The Management Information Systems major leads to a Bachelor of Science degree which includes a minimum of 57 upper-level (33XX and

43XX) hours and a total of 120 hours in order to complete the baccalaureate degree.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Additional Information Grades must be C- or better.	
Mathematics (3 hours)	
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
Additional Information Grade must be C- or better.	
Life and Physical Sciences (6 hours)	
Choose two course from the approved list:	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3

ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government

	Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
Additional Information	
Other courses may meet this requirement, however, ECON 2301 will still be required for all Business majors.	
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses, or their approved equivalents constitute the business core and are required of all business students. No more than 6 hours of grades in the range of D+, D or D- are permitted in upper-level (33XX and 43XX) Business Core Requirements.

Core Requirements for Business Majors (48 hours)	
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3

DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3

Additional Information

MGMT 4312 Capstone course-- requires permission.

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Major Requirements (30 hours)

All courses within the Major Requirements must be completed with a grade of C- or better. A minimum cumulative GPA of 2.0 or higher is required to graduate.

Major Requirements (30 hours)	
ISAM 3304	Introduction to Business Applications Programming Credit Hours: 3
ISAM 3314	Applications Development with Java Credit Hours: 3
ISAM 3331	Introduction to Business Database Applications Development

ISAM 3333	Applications Development with C# Credit Hours: 3
ISAM 4331	Introduction to Business Internet Applications Development Credit Hours: 3
ISAM 4332	Advanced Business Internet Applications Development Credit Hours: 3
ISAM 4362	Advanced Business Database Applications Development
ISAM 4365	Analysis and Design of Information Systems Credit Hours: 3
ISAM 4366	Introduction to Computer Networks Management Credit Hours: 3

Elective Requirement (3 hours)

Any upper-level (33XX or 43XX) ISAM course beyond required courses already taken.

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Marketing B.S.

Marketing is more than a job - it is a crucial business function. The University of Houston-

Clear Lake's Bachelor of Science in Marketing will provide you with the education that is necessary to succeed in advertising, event management, marketing research, public relations, social media and more. Discover the science and art of marketing strategy, while learning fundamental principles of advertising and promotion. Coursework in this degree program will provide you with opportunities to conduct market research, explore consumer behavior, study logistics and assess distribution and marketing channels.

The degree in Marketing leads to the Bachelor of Science. A minimum of 57 upper-level (33XX and 43XX) hours and a total of 120 hours are required for the baccalaureate degree.

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Additional Information

Grades must be C- or better.

Mathematics (3 hours)

MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
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Additional Information

Grade must be C- or better. Other courses may meet this requirement; however, MATH 1324 will still be required for all BUS majors.

Life and Physical Sciences (6 hours)

Choose two course from the approved list:

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System

	Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3

WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the approved list:	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
Additional Information	
Other courses may meet this requirement, however, ECON 2301 will still be required for all Business majors.	
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses, or their approved equivalents, constitute the business core and are required of all business students. No more than 6 hours of grades in the range of D+, D or

D- are permitted in upper-level Business Core Requirements.

Core Requirements for Business Majors (48 hours)	
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3
Additional Information	
MGMT 4312 Capstone course-- requires permission.	

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Major Requirements (18 hours)

All courses within the Major Requirements must be completed with a grade of C- or better. A minimum cumulative GPA of 2.0 or higher is required to graduate.

Major Requirements (18 hours)

MKTG 3313	Marketing Channels and Distribution Credit Hours: 3
MKTG 3343	Consumer Behavior Credit Hours: 3
MKTG 3351	Marketing Research Credit Hours: 3

Major Electives (9 hours) Choose three courses from the list:

Choose 3 MKTG upper-level (33XX and 43XX) courses other than those already required.

MKTG 3331	Integrated Marketing Communications
MKTG 3348	Retail Management Credit Hours: 3
MKTG 3360	Social Media Marketing Credit Hours: 3
MKTG 4332	Services Marketing Credit Hours: 0
MKTG 4351	International Marketing Credit Hours: 3
MKTG 4335	Brands and Brand Management Credit Hours: 3
MKTG 4338	Sports Marketing Credit Hours: 3
MKTG 4391	Selected Topics in Marketing Credit Hours: 3

Additional Information

MKTG 4391 with the course title Social Media Marketing

Elective Requirements (12 hours)

Elective Requirements (12 hours)

Choose 4 upper-level (33XX and 43XX) courses offered by Colleges of Business, Human Sciences & Humanities, Science & Engineering or Education

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.

Mathematical Science B.A.

The plan in Mathematical Science leads to the bachelor of arts (B.A.) or bachelor of science (B.S.) degree. The undergraduate degree is designed to prepare the student for a career in industry or education, or to prepare the student for graduate study in mathematics, statistics, operations research or other mathematically based disciplines. The plan includes courses in both the classical foundations of mathematics and the modern concern with numerical issues spawned by the computer. Students who are seeking teaching certification will follow the degree plan and certification on notated pages.

Please consult the College of Education (COE) for 4–8 degree and certification as well as for 8–12 degree and certification.

Requirements

This degree requires 120 hours and includes 42 hours of University Core. University Core is listed separately in the catalog. However; some of the Major Requirements courses listed above also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements above are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3

CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3

HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and PhysicalScience Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (36 Hours)

Required minimum for all Major Requirements is "C-".

Major Requirements	
MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
MATH 2413	Calculus I Credit Hours: 4
MATH 2414	Calculus II Credit Hours: 4
MATH 2315	Calculus III

	Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3
MATH 3300	Introduction to Modern Algebra and Number Theory Credit Hours: 3
MATH 3312	Number Theory Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3

Additional Major Requirements courses

Select one

CSCI 1320	C Programming Credit Hours: 3
CSCI 1470	Computer Science I Credit Hours: 4
CSCI 3311	Programming With Visual Basic Credit Hours: 3

Additional Major Requirements courses

Select one

MATH 4344	Introduction to Probability Credit Hours: 3
STAT 4344	Introduction to Probability Credit Hours: 3

Elective Requirements (42 Hours)

Required minimum for all Major Electives is "C-".

Major Elective Requirements (9 hours)

Three upper level MATH/STAT classes which must be selected from the following list:

MATH 3301	History of Mathematical Sciences Credit Hours: 3
MATH 3331	Advanced Calculus Credit Hours: 3
MATH 4315	Numerical Analysis and its Applications Credit Hours: 3

MATH 4316	Mathematic Software Applications Credit Hours: 3
MATH 4321	Predicate Logic Credit Hours: 3
MATH 4322	Introduction to Abstract Algebra Credit Hours: 3
MATH 4325	Nonlinear Dynamics and Applications Credit Hours: 3
MATH 4345	Introduction to Statistics Credit Hours: 3
MATH 4346	Probability for Actuarial Exam P1 Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3
STAT 4346	Probability for Actuarial Exam P1 Credit Hours: 3
MATH 4348	Introduction to Financial Math for Exam FM Credit Hours: 3
MATH 4363	Functions of a Complex Variable Credit Hours: 3
STAT 4348	Introduction to Financial Math for Exam FM Credit Hours: 3
Additional Information	
<ul style="list-style-type: none"> Choose between MATH 4345 Introduction to Statistics Or STAT 4345 Introduction to Statistics Choose between MATH 4346 Or STAT 4346 Probability for Actuarial Exam P1 Choose between MATH 4348 Introduction to Financial Math for Exam FM Or STAT 4348 Introduction to Financial Math for Exam FM 	
General Electives (33 hours)	
Upper level UHCL classes selected from any rubric. It is the responsibility of the student to investigate and comply with prerequisites for all electives. STAT 3308 and STAT 3334 cannot be used as credit for the Math degree.	

Mathematical Science B.A. with Mathematics 7-12 Certification

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
Choose two courses from the list.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3

PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3

CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

COE Core Requirements (30 hours)

College Core Requirements	
TCED 1101	Inquiry Approaches to Teaching Mathematics and Science Step I Credit Hours: 1
TCED 1102	Inquiry Based Lesson Design in Mathematics and Science Step II Credit Hours: 1
TCED 2301	Knowing and Learning Credit Hours: 3
TCED 2303	Classroom Interactions Credit Hours: 3
TCED 3300	Perspectives on Science and Math Credit Hours: 3
TCED 3301	Research Methods in Science Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4300	Project Based Instruction Credit Hours: 3
TCED 4363	Methods in Secondary Mathematics Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

SPED 4300	Survey of Exceptionalities Credit Hours: 3
MATH 3307	Functions and Modeling Credit Hours: 3

Major Requirements (47 hours)

Major Requirements	
Choose one Natural Science Elective, in addition to the University Core science (3 hours from: ASTR, BIOL, CHEM, ENSC, GEOL or PHYS)	
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3
MATH 2414	Calculus II Credit Hours: 4
MATH 3300	Introduction to Modern Algebra and Number Theory Credit Hours: 3
MATH 3301	History of Mathematical Sciences Credit Hours: 3
MATH 3304	Algebra Through Technology Credit Hours: 3
MATH 3305	Euclidian and Non-Euclidian Geometry Credit Hours: 3
MATH 3312	Number Theory Credit Hours: 3
MATH 4344	Introduction to Probability Credit Hours: 3
LLS 4351	Reading in Content Subjects Credit Hours: 3
STAT 3308	Computational Statistics Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
Choose two courses from the following list of 7 choices:	
MATH 2315	Calculus III Credit Hours: 3
MATH 4315	Numerical Analysis and its Applications Credit Hours: 3
MATH 4316	Mathematic Software Applications Credit Hours: 3
MATH 4321	Predicate Logic

	Credit Hours: 3
MATH 4322	Introduction to Abstract Algebra Credit Hours: 3
MATH 4325	Nonlinear Dynamics and Applications Credit Hours: 3
MATH 4345	Introduction to Statistics Credit Hours: 3

Pedagogy Requirements (7 Hours)

Pedagogy Requirements	
TCED 4700	Apprentice Teaching and Seminar Credit Hours: 7
<h3>Additional Information</h3> <ul style="list-style-type: none"> All courses outside the University Core must be C- or better. Check prerequisites before enrolling in any courses. 	

Mathematical Science B.S.

The plan in Mathematical Science leads to the bachelor of arts (B.A.) or bachelor of science (B.S.) degree. The undergraduate degree is designed to prepare the student for a career in industry or education, or to prepare the student for graduate study in mathematics, statistics, operations research or other mathematically based disciplines. The plan includes courses in both the classical foundations of mathematics and the modern concern with numerical issues spawned by the computer. Students who are seeking teaching certification will follow the degree plan and certification on notated pages. Please consult the College of Education (COE) for 4-8 degree and certification as well as for 8-12 degree and certification.

Requirements

This degree requires 120 hours and includes 42 hours of University Core. University Core is listed separately in the catalog. However; some

of the Major Requirements courses listed above also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements above are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 1314	College Algebra Credit Hours: 3
Life and Physical Sciences (6 hours)	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3

GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3

CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (42 Hours)

Required minimum for all Major Requirements is "C-".

Major Requirements	
MATH 2412	Pre-Calculus Mathematics Credit Hours: 4
MATH 2413	Calculus I Credit Hours: 4
MATH 2414	Calculus II Credit Hours: 4
MATH 2315	Calculus III Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3
MATH 3331	Advanced Calculus Credit Hours: 3
MATH 4315	Numerical Analysis and its Applications Credit Hours: 3
MATH 4316	Mathematic Software Applications Credit Hours: 3

MATH 4322	Introduction to Abstract Algebra Credit Hours: 3
MATH 4345	Introduction to Statistics Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3
MATH 4344	Introduction to Probability Credit Hours: 3
STAT 4344	Introduction to Probability Credit Hours: 3
CSCI 1320	C Programming Credit Hours: 3
CSCI 1470	Computer Science I Credit Hours: 4
CSCI 3311	Programming With Visual Basic Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3

Additional Information

- Choose between MATH 4322 Introduction to Abstract Algebra Or MATH 4345 Introduction to Statistics Or STAT 4345 Introduction to Statistics MATH 4344 Introduction to Probability Or STAT 4344 Introduction to Probability CSCI 1470 Computer Science I or CSCI 1320 C Programming Or CSCI 3311 Programming With Visual Basic

Elective Requirements (9 Hours)

Required minimum for all Major Electives is "C-".

Major Elective Requirements (9 hours)	
Three upper level MATH classes which must be selected from the following list:	
MATH 3312	Number Theory Credit Hours: 3
MATH 4313	Introduction to Topology Credit Hours: 3
MATH 4321	Predicate Logic Credit Hours: 3
MATH 4322	Introduction to Abstract Algebra Credit Hours: 3
MATH 4325	Nonlinear Dynamics and Applications Credit Hours: 3
MATH 4341	Introduction to Analysis Credit Hours: 3

MATH 4345	Introduction to Statistics Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3
MATH 4346	Probability for Actuarial Exam P1 Credit Hours: 3
STAT 4346	Probability for Actuarial Exam P1 Credit Hours: 3
MATH 4348	Introduction to Financial Math for Exam FM Credit Hours: 3
STAT 4348	Introduction to Financial Math for Exam FM Credit Hours: 3
MATH 4350	Financial Economics for Actuarial Exam MFE Credit Hours: 3
STAT 4350	Financial Economics Credit Hours: 3
MATH 4363	Functions of a Complex Variable Credit Hours: 3

Additional Information

Choose between MATH 4345 Introduction to Statistics Or STAT 4345 Introduction to Statistics MATH 4346 Probability for Actuarial Exam P1 Or STAT 4346 Probability for Actuarial Exam P1 MATH 4348 Introduction to Financial Math for Exam FM Or STAT 4348 Introduction to Financial Math for Exam FM MATH 4350 Financial Economics for Actuarial Exam MFE Or STAT 4350 Financial Economics

General Electives (27 hours)

Upper level UHCL classes selected from any rubric. It is the responsibility of the student to investigate and comply with prerequisites for all electives. STAT 3308 and STAT 3334 cannot be used as credit for the Math degree.

Actuarial Science Specialization (27 Hours)

Actuarial Science Specialization(27 hours)	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II - Managerial Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3

MATH 4345	Introduction to Statistics Credit Hours: 3
MATH 4346	Probability for Actuarial Exam P1 Credit Hours: 3
MATH 4348	Introduction to Financial Math for Exam FM Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3
STAT 4346	Probability for Actuarial Exam P1 Credit Hours: 3
STAT 4348	Introduction to Financial Math for Exam FM Credit Hours: 3

Additional Information

If MATH/STAT 4345 or MATH/STAT 4346 or CSCI 1320 or CSCI 3331 are previously taken, additional general electives must be taken.

Mathematical Science B.S. with Mathematics 7-12 Certification

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
Choose two courses from list	
ASTR 1303	Stars and Galaxies Credit Hours: 3

ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the list.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3

WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the list.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3

PSYC 1100	Learning Frameworks Credit Hours: 1
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COE Core Requirements (30 hours)

College Core Requirements	
TCED 1101	Inquiry Approaches to Teaching Mathematics and Science Step I Credit Hours: 1
TCED 1102	Inquiry Based Lesson Design in Mathematics and Science Step II Credit Hours: 1
TCED 2301	Knowing and Learning Credit Hours: 3
TCED 2303	Classroom Interactions Credit Hours: 3
TCED 3300	Perspectives on Science and Math Credit Hours: 3
TCED 3301	Research Methods in Science Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4300	Project Based Instruction Credit Hours: 3
TCED 4363	Methods in Secondary Mathematics Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
MATH 3307	Functions and Modeling Credit Hours: 3

Major Requirements (47 hours)

Major Requirements	
LLLS 4351	Reading in Content Subjects Credit Hours: 3
MATH 2315	Calculus III Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3
MATH 2414	Calculus II

	Credit Hours: 4
MATH 3301	History of Mathematical Sciences Credit Hours: 3
MATH 3304	Algebra Through Technology Credit Hours: 3
MATH 3305	Euclidian and Non-Euclidian Geometry Credit Hours: 3
MATH 3331	Advanced Calculus Credit Hours: 3
MATH 4344	Introduction to Probability Credit Hours: 3
MATH 4345	Introduction to Statistics Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3

Additional Information

Please select MATH 4345 or STAT 4345.

Choose one course from the following 2 choices:

MATH 4322	Introduction to Abstract Algebra Credit Hours: 3
MATH 4341	Introduction to Analysis Credit Hours: 3

Choose two courses from the following list of 8 choices:

MATH 3312	Number Theory Credit Hours: 3
MATH 4313	Introduction to Topology Credit Hours: 3
MATH 4315	Numerical Analysis and its Applications Credit Hours: 3
MATH 4316	Mathematic Software Applications Credit Hours: 3
MATH 4321	Predicate Logic Credit Hours: 3
MATH 4322	Introduction to Abstract Algebra Credit Hours: 3
MATH 4325	Nonlinear Dynamics and Applications Credit Hours: 3
MATH 4363	Functions of a Complex Variable Credit Hours: 3

Pedagogy Requirements (7 hours)

Pedagogy Requirements

TCED 4700	Apprentice Teaching and Seminar Credit Hours: 7
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Additional Information

- All courses outside the University Core must be C- or better.
- Check prerequisites before enrolling in any courses.

Mathematics B.A. with Mathematics 4-8 Certification

University Core Requirements (42 Hours)

Communication (6 hours)

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

MATH 2413	Calculus I Credit Hours: 4
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Additional Information

Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.

Life and Physical Sciences (6 hours)

Choose two courses from the list.

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II

	Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose one course from the list.

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)

Choose one course from the list.

ARTS 1303	World Art Survey I Credit Hours: 3
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ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the list.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (19 hours)

College Core Requirements

EDUC 4310	Theories of Educational Psychology
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	Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1

Major Requirements (49 hours)

Major Requirements

Choose Two Natural Science Electives, in addition to the University Core science (6 hours from: ASTR, BIOL, CHEM, ENSC, GEOL or PHYS)

LLS 4311	Survey of Reading Credit Hours: 3
LLS 4351	Reading in Content Subjects Credit Hours: 3
MATH 1350	Mathematics for Teachers I Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2414	Calculus II Credit Hours: 4
MATH 3300	Introduction to Modern Algebra and Number Theory Credit Hours: 3
MATH 3304	Algebra Through Technology Credit Hours: 3
MATH 3305	Euclidian and Non-Euclidian Geometry Credit Hours: 3
MATH 4344	Introduction to Probability Credit Hours: 3
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3

WRIT 3315	Advanced Technical Writing Credit Hours: 3
Choose TWO courses from the following list of 7 choices:	
MATH 2315	Calculus III Credit Hours: 3
MATH 3301	History of Mathematical Sciences Credit Hours: 3
MATH 3312	Number Theory Credit Hours: 3
MATH 4315	Numerical Analysis and its Applications Credit Hours: 3
MATH 4316	Mathematic Software Applications Credit Hours: 3
MATH 4321	Predicate Logic Credit Hours: 3
MATH 4322	Introduction to Abstract Algebra Credit Hours: 3

Pedagogy Requirements (15 hours)

Pedagogy Requirements	
TCED 4333	Mathematics Methods for Grades 4-8 Credit Hours: 3
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Additional Information <ul style="list-style-type: none"> All courses outside the University Core must be C- or better. Check prerequisites before enrolling in any courses. In the 12 hours (core included) of Science, students must have at least one course in each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy. 	

Mathematics Scholars Plan - Linked B.S.-M.S. Degree Plans in Mathematics

The Mathematics Scholars Plan combines the B.S. degree plan in Mathematics with the M.S.

degree plan in Mathematics with the intention of allowing highly motivated and qualified students to complete both the B.S. and M.S. degrees in mathematics in a time and cost efficient manner. Students in the plan may take up to two courses at the graduate level in their senior year if they have completed the required course prerequisites. These graduate credit hours may be applied toward either the B.S. or M.S. degree, but not both. Additionally, students in the Scholars Plan are expected to begin a graduate research project early in their studies. After admission to the Scholars Plan and successful completion of the B.S. degree in Mathematics, the Mathematics Graduate Admissions committee will consider waiving the Graduate Record Examination (GRE) requirement for admission into the Mathematics Graduate Program, will also recommend the student to CSE Dean's Scholarship and will give priority when considering graduate teaching assistant in the math department.

Mathematics scholars plan application Requirements:

- Applicants may apply for admission to the program during their junior or senior year at UHCL. The application form is available at the math department.
- Applicants must declare themselves to be Mathematics majors immediately upon admission to Math Scholars Plan.
- Applicants must have completed a minimum of 21 credit hours in mathematics coursework and have a cumulative mathematics GPA of 3.5.
- Applicants must provide a letter of recommendation from a math faculty

adviser familiar with the student's coursework.

- Applicants must interview with the Scholars Plan Admissions Committee.

After admission, successful continuation in the Scholars Plan will require students to:

- Maintain an overall GPA of 3.0 and mathematics GPA of 3.0. Failure to maintain these averages will result in a one-semester probation period during which the student must improve their cumulative GPA to 3.0 and their mathematics GPA to 3.0.
- Participate in CSE Science and Mathematics Colloquium.
- Enroll in the Mathematics Graduate Program upon completion of the requirements for the B.S. degree.
- Successfully complete a research project (Math 6837, Math 6838) or graduate thesis (Math 6939) under the supervision of a graduate faculty adviser as part of their MS degree coursework.

Students who fail to meet any of these requirements will be dropped from the Scholars Plan, but may continue to pursue the B.S. or M.S. degree in chemistry. Students who are dropped from the Scholars Program, but still wish to pursue the MS degree, must meet the standard application requirements for admission to the Mathematics Graduate Program.

The student will be awarded the B.S. and M.S. respectively at the completion of each degree's requirement.

In the event a student is unable to complete the entire program of study, s/he is assured the B.S. degree in Mathematics upon completion of the requirements for that degree. In the event a student fails to complete the M.S. degree requirements, graduate level classes taken while in the program may be applied toward the B.S. degree.

Mechanical Engineering B.S.

Mechanical Engineering

The plan in Mechanical Engineering leads to the bachelor of science (B.S.) degree. This engineering program is designed to conform to the standards of the Engineering Accreditation Commission of ABET, <http://www.abet.org> (the Mechanical Engineering program will seek accreditation at the earliest allowable time). The program emphasizes the study of enabling application areas, such as: materials, sustainability, Internet of Things (IoT) and design engineering, while focusing on the traditional core technologies of clean energy, pressure technology, robotics and manufacturing.

Built upon a foundation of chemistry, physics and advanced mathematics, mechanical engineering is the broadest of the engineering disciplines. Studies in computer aided design, fluid, thermal and energy conversion systems, machine component and mechatronic systems, along with manufacturing processes and controls, prepare program graduates to enter a wide variety of current and emerging

employment fields vital to the local, state and national economies.

Conventional industrial sectors that will directly employ program graduates include petrochemical, transportation, building design and construction, energy, and manufacturing. Program graduates are equally prepared to pursue advanced studies at graduate schools; leveraging their skills in problem solving, critical thinking, and lifelong learning.

The mission of the Mechanical Engineering program is to develop graduates with solid foundation of engineering and professional knowledge, critical thinking, communication skills, and the pursuit of life-long learning. The program emphasizes preparing graduates that are highly recruitable throughout the region to enhance the lives of a diverse population through service and leadership.

Program Educational Objectives

The Program Educational Objectives (PEO) of the Mechanical Engineering program are defined as what graduates are expected to attain within a few years after graduation and are as follows:

1. Mechanical Engineering graduates will be professionally employed, serving the rapidly changing technological needs of industry or governmental organizations regionally in the greater Houston Metropolitan area, the state, and the nation.
2. Mechanical Engineering graduates will work effectively as a member or a leader of diverse and multidisciplinary teams.
3. Mechanical Engineering graduates will continue to grow professionally

through activities which may include pursuing formal graduate study, research, or continuing education; achieving professional licensure; and participating in technical societies.

4. Mechanical Engineering graduates maintain a high regard for quality, ethical, environmental, societal, economic, safety and global considerations in their professional pursuits.
5. Mechanical Engineering graduates value all aspects of their service to community, employer, and profession.
6. Mechanical Engineering Graduates will develop the engineering and professional knowledge, skills and communication capabilities required to be highly valued in their chosen field.

Student Outcomes

At the time of graduation, Mechanical Engineering program graduates are expected to demonstrate:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in

engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Scholastic Performance Requirements for Mechanical Engineering Undergraduates

The UHCL graduation requirements stipulate that a student must achieve an overall minimum grade point average (GPA) of 2.0. The Mechanical Engineering program imposes additional requirements for students to be accepted into, and progress through, the upper-level Mechanical Engineering curriculum; a grade of "C" or better is required in all prerequisite coursework and all coursework offered to meet Major or designated Elective requirements.

Mechanical Engineering Requirements

This degree requires 127-128 hours and includes 42 hours of University Core. However; some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still required for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3 hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	

POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
PHYS 2126	Laboratory for University Physics II Credit Hours: 1

Major Requirements (76 Hours)

Required minimum for all Major Requirements is "C".

Major Requirements	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
ENGR 1201	Introduction to Engineering Credit Hours: 2
ENGR 2301	Statics Credit Hours: 3

ENGR 2302	Dynamics Credit Hours: 3
ENGR 2304	Computing for Engineers Credit Hours: 3
ENGR 2305	Electrical Circuits I Credit Hours: 3
MATH 2414	Calculus II Credit Hours: 4
MATH 2315	Calculus III Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3
MENG 1204	Engineering Graphics for Mechanical Engineers Credit Hours: 2
MENG 3210	Mechanical Engineering Lab I Credit Hours: 2
MENG 3211	Mechanical Engineering Lab II Credit Hours: 2
MENG 3303	Solid Mechanics Credit Hours: 3
MENG 3310	Introduction to Fluid Mechanics Credit Hours: 3
MENG 3314	Design Methodology Credit Hours: 3
MENG 3316	Heat Transfer Credit Hours: 3
MENG 3324	Introduction to Materials Science Credit Hours: 3
MENG 3334	Thermodynamics I Credit Hours: 3
MENG 3344	Introduction to Manufacturing Processes Credit Hours: 3
MENG 4143	Thermal/Fluid Laboratory Credit Hours: 1
MENG 4240	Senior Design Project I Credit Hours: 2
MENG 4241	Senior Design Project II Credit Hours: 2
MENG 4310	Dynamics and Control of Mechanical Systems Credit Hours: 3

MENG 4331	Design of Machine Elements Credit Hours: 3
MENG 4343	Thermal/Fluid System Design Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
PHYS 2326	University Physics II Credit Hours: 3
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
WRIT 3315	Advanced Technical Writing Credit Hours: 3

Elective Requirements (9 Hours)

Six (6) hours of approved upper level MENG electives are required. Students must select 2 courses from the list below.

Major Electives	
MENG 4302	Introduction to Mechatronics Credit Hours: 3
MENG 4305	Finite Element Analysis Credit Hours: 3
MENG 4307	Alternative Energy Systems Credit Hours: 3
MENG 4309	Design for Manufacturing Credit Hours: 3
MENG 4333	Vibrations Credit Hours: 3
MENG 4391	Selected Topics in Mechanical Engineering Credit Hours: 3
Math/Science Elective (3 hours)	
Any MATH course numbered 3312 or above.	
Any STAT course numbered 3334 or above.	
Any BIOL course numbered 2301 or above.	

Any CHEM course numbered 2301 or above.
Any PHYS course numbered 3303 or above.
Any GEOL course numbered 2309 or above.

Occupational Safety and Health B.S.

The plan in Occupational Safety & Health leads to the bachelor of science (B.S.) degree. This plan seeks through an interdisciplinary and applied science approach to prepare students for opportunities in the private sector and in governmental agencies where occupational safety and health issues are being addressed. Graduates of the plan will also be prepared to pursue further academic training in Occupational Safety & Health. Students may also prepare for the professional certification examinations in Industrial Hygiene and/or Safety.

The undergraduate Occupational Safety & Health-Industrial Hygiene, and Occupational Safety & Health-Safety plans are accredited by the Applied & Natural Science Accreditation Commission (ANSAC) of ABET, <http://www.abet.org>.

Students must specialize in one or both of the following areas:

- Industrial Hygiene
- Safety

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
MATH 2413	Calculus I Credit Hours: 4
Life and Physical Sciences (6 hours)	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government

	Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (52 hours)

One (1) hour of Pre-Calculus or Calculus from the University core will count toward the Major.

Major Requirements (52 hours)	
The following courses must be completed with the grade of "C-" or better.	
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2101	Laboratory for Anatomy and Physiology I Credit Hours: 1
BIOL 2302	Anatomy & Physiology II Credit Hours: 3

BIOL 2102	Laboratory for Anatomy and Physiology II Credit Hours: 1
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2123	Laboratory for Organic Chemistry I Credit Hours: 1
OSHE 3311	Industrial Health and Hygiene Credit Hours: 3
OSHE 3332	Principles of Professional Safety Credit Hours: 3
OSHE 4321	Ergonomics, Human Factors and Workspace Design Credit Hours: 3
OSHE 4323	Hazardous Materials and Emergency Management Credit Hours: 3
OSHE 4331	Air Pollution Science Credit Hours: 3
OSHE 4336	Environmental Safety and Health Credit Hours: 3
OSHE 4341	Advanced Studies in Occupational Safety and Health Credit Hours: 3
OSHE 4422	Industrial Hygiene Sampling and Analysis Credit Hours: 4
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1101	Laboratory for College Physics I Credit Hours: 1
PHYS 1302	College Physics II Credit Hours: 3
PHYS 1102	Laboratory for College Physics II Credit Hours: 1
STAT 3308	Computational Statistics Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3

Additional Information

OSHE 4341 requires student complete a 300-hour internship in their senior and final year of study. A faculty adviser must pre-approve the internship. OSHE 4341 must be taken the last fall semester of the student's undergraduate academic career. For credit, the internship must be near the time of the course, within one calendar year.

Specialization Requirements (26 hours)

Industrial Hygiene Specialization

Specialization requirements and approved upper-level electives must be completed with the grade of "C-" or better.

ENSC 4325	Environmental Toxicology Credit Hours: 3
OSHE 4315	Industrial Radiological Health Credit Hours: 3
OSHE 4411	Noise and Hearing Conservation Credit Hours: 4
OSHE 4413	Industrial Ventilation Credit Hours: 4

Industrial Hygiene Specialization Electives

Select 12 hours of specialization electives. Majors with dual specializations in Industrial Hygiene and Safety must take OSHE 3340, 4316, 4324 and 4333 from the electives listed below.

ENVR 4315	Introduction to Environmental Law Credit Hours: 3
OSHE 3340	Techniques of Safety Engineering and Analysis Credit Hours: 3
OSHE 4316	System Safety and Accident Investigation Credit Hours: 3
OSHE 4324	Fire Safety Engineering Credit Hours: 3
OSHE 4333	Construction and General Industry Safety Credit Hours: 3
OSHE 4334	Chemical Processing and Petroleum Refining Credit Hours: 3
OSHE 4335	Process Safety and Chemical Risk Management Credit Hours: 3

Safety Specialization

OSHE 3340	Techniques of Safety Engineering and Analysis Credit Hours: 3
OSHE 4316	System Safety and Accident Investigation Credit Hours: 3
OSHE 4324	Fire Safety Engineering Credit Hours: 3

OSHE 4333	Construction and General Industry Safety Credit Hours: 3
Safety Specialization Electives	
Select 14 hours of specialization electives. Majors with dual specializations in Safety and Industrial Hygiene must take BIOL 4325 and OSHE 4315, 4411 and 4413 from the electives listed below	
BIOL 4325	Environmental Toxicology Credit Hours: 3
ENVR 4315	Introduction to Environmental Law Credit Hours: 3
OSHE 4315	Industrial Radiological Health Credit Hours: 3
OSHE 4334	Chemical Processing and Petroleum Refining Credit Hours: 3
OSHE 4335	Process Safety and Chemical Risk Management Credit Hours: 3
OSHE 4411	Noise and Hearing Conservation Credit Hours: 4
OSHE 4413	Industrial Ventilation Credit Hours: 4
Additional Information	
Additional required electives must be selected in consultation with a faculty adviser and shall be completed with grades "C-" or better. In all cases, prerequisites for each course must be satisfied. A maximum of six hours of environmental management courses may be included. Majors with dual specializations in Safety and Industrial Hygiene must meet the required courses for each specialization, which can be satisfied by taking the appropriate electives.	
Graduation Requirements	
Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL. Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) course work: (1) in the major and (2) in residence at UHCL. Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.	

Occupational Safety and Health Scholars Plan - Linked B.S.-M.S. Degree

Plans in Occupational Safety and Health

The Occupational Safety & Health Scholars Plan combines the B.S. degree plan in Occupational Safety & Health with M.S. degree plan in Occupational Safety & Health with the intention of allowing highly motivated and qualified students to complete both the B.S. and M.S. degrees in Occupational Safety & Health in a time and cost efficient manner. Students in the plan may take up to four courses at the graduate level in their senior year if they have completed the required course prerequisites. These graduate credit hours may be applied toward either the B.S. or M.S. degree, but not both. Additionally, students in the Scholars Plan are expected to begin a graduate research project early in their studies. After admission to the Scholars Plan and successful completion of the B.S. degree in Occupational Safety & Health, the Occupational Safety & Health Program Graduate Admissions committee will consider waiving the Graduate Record Examination (GRE) requirement for admission into the Occupational Safety & Health Graduate Program.

Occupational Safety & Health scholars plan application Requirements:

- Applicants may apply for admission to the program during their sophomore, junior or senior year in college.
- Applicants must declare themselves to be Occupational Safety & Health majors immediately upon admission.
- Applicants must have completed a minimum of 12 credit hours in

mathematics/science coursework at the lower level, including a minimum of eight credit hours in occupational safety & health core, and have a cumulative mathematics/science GPA of 3.5.

- Applicants must provide a letter of recommendation from a science faculty adviser familiar with the student's coursework.
- Applicants must interview with the Scholars Plan Admissions Committee.

After admission, successful continuation in the Scholars Plan will require students to:

- Maintain an overall GPA of 3.0 and Mathematics/Science GPA of 3.0. Failure to maintain these averages will result in a one-semester probation period during which the student must improve his/her cumulative GPA to 3.0, and their Mathematics/Science GPA to 3.0.
- Participate in a research project as an Independent Study course under the supervision of a graduate faculty adviser during the senior undergraduate year.
- Enroll in the Occupational Safety & Health Graduate Program upon completion of the requirements for the B.S. degree.
- Successfully complete a research project as an Independent Study or graduate thesis under the supervision of a graduate faculty adviser as part of their MS degree coursework.

Students who fail to meet any of these requirements will be dropped from the Scholars Plan, but may continue to pursue the B.S. or M.S. degree. Students who are dropped from the Scholars Program, but who wish to continue to

pursue the M.S. degree, must meet the standard application requirements for admission to the Occupational Safety & Health Graduate Program.

At the completion of the requirements for each degree the student will be awarded the B.S. and M.S. degrees. A notation will be made on the student's transcript indicating they have completed the Occupational Safety & Health Scholars Plan.

In the event a student is unable to complete the entire program of study, they are assured the B.S. degree in Occupational Safety & Health upon completion of the requirements for that degree. In the event a student fails to complete the M.S. degree requirements, graduate level classes taken while in the program may be applied toward the B.S. degree.

Physics B.S.

The plan in Physics leads to the bachelor of science (B.S.) degree at the undergraduate level. Our location and the connections our faculty have with National Aeronautics and Space Administration (NASA) and allied aerospace industry allow UHCL to offer students unique research opportunities. In addition to our Physics B.S., we also offer specializations in Engineering Physics and Computational Physics, specifically designed for students interested in pursuing a career in engineering or computational sciences. The Houston-Galveston area is a thriving center for many science-intensive industries, from aerospace to petrochemical; thus, the demand for professionals with knowledge of physics is high. Local industries in Houston provide a huge

potential to employ individuals with a B.S. in Physics, in addition to the increasing demand for physics teachers in high schools. This demand is also expected to grow dramatically over the next decade. An undergraduate degree in Physics enables students to progress into graduate programs in Physics, Astronomy or Engineering. Students may select electives in areas of particular interest. Physics is a very broad discipline, which can lead to a variety of career options. The UHCL Physics program provides several areas where students can develop a degree plan to support their specific career goals. Some of these focus areas include: Geophysics, Biophysics, Space Physics, Computational Physics, Mathematical Physics, Materials Science, Physics Education, Premedical and Prelaw. Courses needed to support these focus areas are chosen in consultation with a physics adviser and faculty member from the other program.

Degree Requirements

This degree requires 120 hours and includes 42 hours of University Core. However; some of the Major Requirements courses listed below also satisfy University Core. If other courses are taken to satisfy University Core, the Major Requirements below are still necessary for graduation and substitutions are not accepted.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (4 hours)	

MATH 2413	Calculus I Credit Hours: 4
Additional Information	
Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major.	
Life and Physical Sciences (6 hours)	
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
ANTH 2346	General Anthropology Credit Hours: 3

CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Component Area Option (6 hours)	
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

Major Requirements (52 Hours)

Students seeking a B.S. degree in Physics should complete the following requirements:

Major Requirements	
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
MATH 2315	Calculus III Credit Hours: 3
MATH 2413	Calculus I Credit Hours: 4
MATH 2414	Calculus II Credit Hours: 4
PHYS 2125	Laboratory for University Physics I Credit Hours: 1

PHYS 2126	Laboratory for University Physics II Credit Hours: 1
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
PHYS 3103	Laboratory for Modern Physics Credit Hours: 1
PHYS 3303	Modern Physics Credit Hours: 3
PHYS 3311	Mathematical Methods for Physics and Engineering I Credit Hours: 3
PHYS 3312	Mathematical Methods for Physics and Engineering II Credit Hours: 3
PHYS 3321	Intermediate Mechanics Credit Hours: 3
PHYS 3331	Intermediate Electromagnetism Credit Hours: 3
PHYS 3342	Quantum Theory I Credit Hours: 3
PHYS 3343	Quantum Theory II Credit Hours: 3
PHYS 3351	Thermodynamics & Statistical Mechanics Credit Hours: 3
PHYS 4371	Research Seminar I Credit Hours: 3
PHYS 4372	Research Seminar II Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
Additional Major Requirements	
Select one	
CSCI 1320	C Programming Credit Hours: 3
CSCI 1370	Software Development with Java Credit Hours: 3
CSCI 1470	Computer Science I Credit Hours: 4
CSCI 1471	Computer Science II Credit Hours: 4
CSCI 3321	Numerical Methods Credit Hours: 3

CSCI 3323	Object-Oriented Design and Programming Credit Hours: 3
Additional Information	
3 hours of a Programming Language	

Elective Requirements (25 hours)

(6 hours) Upper-level (3000-4000) PHYS/ASTR courses. (19 hours) of electives, a minimum of 11 must be upper level (3000-4000).	
Engineering Physics Specialization (25 hours)	
(6 hours) Upper-level (3000-4000) PHYS/ASTR electives.	
CENG 2312	Digital Circuits Credit Hours: 3
CENG 2112	Laboratory for Digital Circuits Credit Hours: 1
CENG 3264	Engineering Design and Project Management Credit Hours: 2
CENG 3313	Linear Circuits Credit Hours: 3
CENG 3113	Laboratory for Linear Circuits Credit Hours: 1
SENG 4310	Introduction to Systems Engineering Credit Hours: 3
Select 2 of the following:	
MENG 3303	Solid Mechanics Credit Hours: 3
MENG 3310	Introduction to Fluid Mechanics Credit Hours: 3
MENG 3316	Heat Transfer Credit Hours: 3
MENG 3324	Introduction to Materials Science Credit Hours: 3
Computational Physics Specialization (25 hours)	
(3 hours) Upper-level PHYS/ASTR electives.	
CSCI 1470	Computer Science I Credit Hours: 4
CSCI 1471	Computer Science II

	Credit Hours: 4
CSCI 2315	Data Structures Credit Hours: 3
CSCI 3321	Numerical Methods Credit Hours: 3
CSCI 3352	Advanced Data Structures and Algorithms Credit Hours: 3
MATH 2305	Discrete Mathematics Credit Hours: 3
PHYS 4202	Computational Physics Credit Hours: 2
SWEN 4342	Software Engineering Credit Hours: 3

Additional Information

In addition to the above listed requirements, students must complete 3 credit hours of 3000 or 4000 level elective Physics courses chosen in collaboration with the student's faculty adviser.

Physics Scholars Plan - Linked B.S.-M.S. Degree Plans in Physics

The Physics Scholars Plan combines the B.S. degree plan in Physics with our M.S. degree plan in Physics with the intention of allowing highly motivated and qualified students to complete both the B.S. and M.S. degrees in physics in a time and cost efficient manner. Students in the plan may take up to four courses at the graduate level in their senior year if they have completed the required course prerequisites. These graduate credit hours may be applied toward either the B.S. or M.S. degree, but not both. Additionally, students in the Scholars Plan are expected to begin a graduate research project early in their studies. After admission to

the Scholars Plan and successful completion of the B.S. degree in Physics, the Physics Program Graduate Admissions committee will consider waiving the Graduate Record Examination (GRE) requirement for admission into the Physics Graduate Program.

Physics scholars plan application Requirements:

- Applicants may apply for admission to the program during their sophomore, junior or senior year in college.
- Applicants must declare themselves to be Physics majors immediately upon admission.
- Applicants must have completed a minimum of 12 credit hours in mathematics/science coursework at the lower level, including a minimum of eight credit hours in physics, and have a cumulative mathematics/science GPA of 3.5.
- Applicants must provide a letter of recommendation from a science faculty adviser familiar with the student's coursework.
- Applicants must interview with the Scholars Plan Admissions Committee.

After admission, successful continuation in the Scholars Plan will require students to:

- Maintain an overall GPA of 3.0 and Mathematics/Science GPA of 3.0. Failure to maintain these averages will result in a one-semester probation period during which the student must improve his/her cumulative GPA to 3.0, and their Mathematics/Science GPA to 3.0.
- Participate in a research project as an Independent Study course under the

supervision of a graduate faculty adviser during the senior undergraduate year.

- Enroll in the Physics Graduate Program upon completion of the requirements for the B.S. degree.
- Successfully complete a research project as an Independent Study or graduate thesis under the supervision of a graduate faculty adviser as part of their MS degree coursework.

Students who fail to meet any of these requirements will be dropped from the Scholars Plan, but may continue to pursue the B.S. or M.S. degree. Students who are dropped from the Scholars Program, but who wish to continue to pursue the M.S. degree, must meet the standard application requirements for admission to the Physics Graduate Program.

At the completion of the requirements for each degree the student will be awarded the B.S. and M.S. degrees. A notation will be made on the student's transcript indicating they have completed the Physics Scholars Plan.

In the event a student is unable to complete the entire program of study, they are assured the B.S. degree in Physics upon completion of the requirements for that degree. In the event a student fails to complete the M.S. degree requirements, graduate level classes taken while in the program may be applied toward the B.S. degree.

Pre-Engineering (Transfer track)

Students will have the opportunity to explore five different engineering paths. Throughout the program, students will be immersed in the physics, chemistry, mathematics and computer science instruction they need to be prepared for a future in engineering. Pre-Engineering students will also enroll in typical university core curriculum and foundational curriculum courses. After completing the coursework, students may continue at UHCL in an existing degree program. Students may also apply for admission to the University of Houston Cullen College of Engineering upon satisfaction of UH transfer admission standards. Pre-Engineering students may transfer to any other university in the country pending that institution's admission and course transfer requirements.

Pre-Engineering Requirements

These programs require 56–65 hours based on specialization. Programs include University Core requirements and lower level introductory engineering courses. University Core is listed separately in the catalog. Additional University Core requirements may be needed outside of this program depending upon selected specialization.

Transfer to University of Houston

Students who complete a Pre-Engineering specialization at UHCL will be guaranteed acceptance to an Engineering programs at UH-Central if they meet the following GPA criteria:

- Math GPA 3.0 or better
- Science GPA 3.0 or better
- English GPA 2.5 or better
- Cumulative GPA 3.25 or better
- Engineering GPA 3.0 or better

Note: The above GPA requirements for UH-Central will be calculated using all attempted course work. Only the hours and grade points earned on the last attempt will be counted in the UHCL GPA calculation.

Students who do not transfer to UH-Central will have an option to transfer to other universities (pending that institution's admission and course transfer requirements) or continue their education at UHCL.

Specialization in Chemical Engineering Requirements

Semester 1 (17 credits)	
WRIT 1301	Composition I Credit Hours: 3
HIST 1301	United States History I Credit Hours: 3
ENGR 1201	Introduction to Engineering Credit Hours: 2
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
MATH 2413	Calculus I Credit Hours: 4
PSYC 1100	Learning Frameworks Credit Hours: 1
Semester 2 (18 credits)	
WRIT 1302	Composition II Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3

CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
ENGR 2304	Computing for Engineers Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
MATH 2414	Calculus II Credit Hours: 4
Semester 3 (14 credits)	
POLS 2305	Federal Government Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
MATH 2315	Calculus III Credit Hours: 3
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2123	Laboratory for Organic Chemistry I Credit Hours: 1
Semester 4 (16 credits)	
POLS 2306	Texas Government Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
CHEM 2325	Organic Chemistry II Credit Hours: 3
CHEM 2125	Laboratory for Organic Chemistry II Credit Hours: 1
HIST 1302	United States History II Credit Hours: 3

Specialization in Civil Engineering Requirements

Semester 1 (17 credits)	
WRIT 1301	Composition I Credit Hours: 3
HIST 1301	United States History I

	Credit Hours: 3
ENGR 1201	Introduction to Engineering Credit Hours: 2
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
MATH 2413	Calculus I Credit Hours: 4
PSYC 1100	Learning Frameworks Credit Hours: 1
Semester 2 (18 credits)	
WRIT 1302	Composition II Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
MATH 2414	Calculus II Credit Hours: 4
ENGR 2304	Computing for Engineers Credit Hours: 3
Semester 3 (14 credits)	
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1103	Laboratory for Physical Geology Credit Hours: 1
PHYS 2326	University Physics II Credit Hours: 3
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
MATH 2315	Calculus III Credit Hours: 3
ENGR 2301	Statics Credit Hours: 3

Additional Information

Students may take either BIOL 1306/1106 or GEOL 1303/1103.

Semester 4 (15 credits)

POLS 2306	Texas Government Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
ENGR 2302	Dynamics Credit Hours: 3
STAT 3334	Probability and Statistics for Scientists and Engineers Credit Hours: 3

Specialization in Electrical Engineering Requirements**Semester 1 (17 credits hours)**

WRIT 1301	Composition I Credit Hours: 3
HIST 1301	United States History I Credit Hours: 3
ENGR 1201	Introduction to Engineering Credit Hours: 2
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
MATH 2413	Calculus I Credit Hours: 4
PSYC 1100	Learning Frameworks Credit Hours: 1

Semester 2 (14 credits)

WRIT 1302	Composition II Credit Hours: 3
ENGR 2304	Computing for Engineers Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
MATH 2414	Calculus II Credit Hours: 4

Semester 3 (13 credits)

POLS 2305	Federal Government Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
MATH 2315	Calculus III Credit Hours: 3
STAT 3334	Probability and Statistics for Scientists and Engineers Credit Hours: 3

Semester 4 (12 credits)

HIST 1302	United States History II Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3

Specialization in Industrial Engineering Requirements**Semester 1 (17 credits)**

WRIT 1301	Composition I Credit Hours: 3
HIST 1301	United States History I Credit Hours: 3
ENGR 1201	Introduction to Engineering Credit Hours: 2
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
MATH 2413	Calculus I Credit Hours: 4
PSYC 1100	Learning Frameworks Credit Hours: 1

Semester 2 (14 credits)

WRIT 1302	Composition II Credit Hours: 3
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ENGR 2304	Computing for Engineers Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2125	Laboratory for University Physics I Credit Hours: 1
MATH 2414	Calculus II Credit Hours: 4
Semester 3 (13 credits)	
POLS 2305	Federal Government Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
MATH 2315	Calculus III Credit Hours: 3
MATH 2318	Linear Algebra Credit Hours: 3
Semester 4 (15 credits)	
POLS 2306	Texas Government Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3
STAT 3334	Probability and Statistics for Scientists and Engineers Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3

Professional Accounting Integrated B.S. and M.S.

The integrated Bachelor of Science and Master of Science degrees in Professional Accounting are designed for focused entering undergraduate students who know they want to meet the

requirements to sit for the CPA examination and pursue a professional career in accounting.

The objective of the integrated plan is to provide students with the required background to sit for the CPA examination and to provide a basis for exercising judgment in accounting-related and business decisions within administrative, managerial and professional positions as well as enhance rapid career development.

Students must apply to the graduate program, take the GMAT exam (unless a waiver is met) and meet all graduate accounting entrance requirements by the first semester of their senior year. Professional Accounting M.S. applicants meeting all the following criteria will qualify for the waiver of the GMAT exam:

1. 3.0 cumulative GPA on upper division courses at UHCL.
2. 3.0 GPA on upper division accounting courses at UHCL (minimum of 12 hours required).

In addition, students in the integrated degree program will be required to have a cumulative UHCL GPA of at least 3.0 for admission to the M.S. in Professional Accounting. The B.S. in Professional Accounting will not be awarded until all requirements for the M.S. are completed. Students failing to be admitted into the graduate Professional Accounting program will revert to the B.S. in Accounting degree program and proceed in the normal manner to graduation. Students planning on taking the CPA examination are required to have a 3-semester credit hour ethics course, which has been approved by the Texas State Board of Public Accountancy (TSBPA). ACCT 4346 Ethics for

Accountants has been approved by TSBPA and satisfies the ethics course requirement.

The integrated B.S. and M.S. in Professional Accounting degree program will include 120 hours of undergraduate and 30 hours of graduate course work.

University Core Requirements (42 Hours)

Communications (6 hours)

WRIT 1301	Composition I Credit Hours: 3
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WRIT 1302	Composition II Credit Hours: 3
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Additional Information

Grade must be C- or better.

Mathematics (3 hours)

MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
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Additional Information

Grade must be C- or better.

Life and Physical Sciences (6 hours)

Choose two course from the approved list:

ASTR 1303	Stars and Galaxies Credit Hours: 3
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ASTR 1304	Solar System Credit Hours: 3
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BIOL 1306	Biology for Science Majors I Credit Hours: 3
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BIOL 1307	Biology for Science Majors II Credit Hours: 3
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BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
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BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
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BIOL 2301	Anatomy & Physiology I Credit Hours: 3
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BIOL 2302	Anatomy & Physiology II
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	Credit Hours: 3
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CHEM 1305	Introductory Chemistry I Credit Hours: 3
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CHEM 1311	General Chemistry I Credit Hours: 3
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CHEM 1312	General Chemistry II Credit Hours: 3
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ENSC 1301	Environmental Science I Credit Hours: 3
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ENSC 1302	Environmental Science II Credit Hours: 3
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GEOL 1303	Physical Geology Credit Hours: 3
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GEOL 1304	Historical Geology Credit Hours: 3
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PHYS 1301	College Physics I Credit Hours: 3
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PHYS 1302	College Physics II Credit Hours: 3
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PHYS 2325	University Physics I Credit Hours: 3
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PHYS 2326	University Physics II Credit Hours: 3
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Language, Philosophy and Culture (3 hours)

Choose one course from the approved list:

HUMN 1301	Humanities Credit Hours: 3
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LITR 2341	Literature and Experience Credit Hours: 3
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PHIL 1301	Introduction to Philosophy Credit Hours: 3
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WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
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Creative Arts (3 Hours)

Choose one course from the approved list:

ARTS 1303	World Art Survey I Credit Hours: 3
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ARTS 1304	World Art Survey II Credit Hours: 3
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ARTS 2379	Arts and the Child Credit Hours: 3
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U.S. History (6 hours)

HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours). Choose one course from the approved list.	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
Additional Information	
Other courses may meet this requirement. However, ECON 2301 will still be required for all Business majors.	
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses, or their approved equivalents, together with accounting and economics principles and business law, constitute the business core and are required of all business students. No more than 6 hours of grades in the range of D+, D or D- are permitted in upper-level (33XX and 43XX) Business Core Requirements.

Core Requirements for Business Majors (48 hours)	
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3

ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3

Additional Information

MGMT 4312 Capstone course-- requires permission.

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Undergraduate Requirements (21 hours)

All major requirements must be grades of C- or higher.

Undergraduate Courses (18 hours)	
ACCT 3333	Cost Accounting Credit Hours: 3

ACCT 3341	Intermediate Accounting I Credit Hours: 3
ACCT 3342	Intermediate Accounting II Credit Hours: 3
ACCT 4331	Federal Taxation of Individuals Credit Hours: 3
ACCT 4332	Financial Information Systems Credit Hours: 3
ACCT 4341	Auditing I Credit Hours: 3
Accounting Electives (3 hours)	
3 hours of undergraduate ACCT elective upper-level, 33XX or 43XX	
Additional Information	
ACCT 3331 & ACCT 3332 cannot be used for this degree.	

Elective Requirements (9 hours)

BUS electives (6 hours)	
6 hours of undergraduate business electives upper-level, 33XX or 43XX	
General Electives (3 hours)	
3 hours of undergraduate general elective upper-level, 33XX or 43XX	

Graduate Requirements (30 hours)

Graduate Courses (18 hours)	
ACCT 4346	Business Ethics for Accountants Credit Hours: 3
ACCT 5234	Corporate and Pass Through Entity Taxation Credit Hours: 3
ACCT 5431	Advanced Accounting Credit Hours: 3
ACCT 5432	Acct for Govt & Not Profit Credit Hours: 3
ACCT 6732	Seminar in Fraud Examination and Audit Risk (Capstone) Credit Hours: 3
LEGL 5131	Legal Concepts for the Business Professional Credit Hours: 3

Graduate Elective Requirements (12 hours)

Accounting Electives (9 hours)

Additional Information

Course work at the 33XX or 43XX level and graduate foundation courses may not be included in the 9 hours of graduate ACCT electives.

Finance Electives (3 hours)

Additional Information

Course work at the 33XX or 43XX level and graduate foundation courses may not be included in the 3 hours of graduate FINC electives.

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000–4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.
- Students must earn grades of C or higher (C- not acceptable) in the graduate (5000–6000 level) portion of the program. A minimum GPA of 3.0 is required for graduation.

Professional Accounting Integrated B.S./M.S. with a Concentration in

Management Information Systems

The integrated Bachelor of Science and Master of Science degrees in Professional Accounting are designed for focused entering undergraduate students who know they want to meet the requirements to sit for the CPA examination and pursue a professional career in accounting.

The objective of the integrated plan is to provide students with the required background to sit for the CPA examination and to provide a basis for exercising judgment in accounting-related and business decisions within administrative, managerial and professional positions as well as enhance rapid career development.

Students must apply to the graduate program, take the GMAT exam (unless a waiver is met) and meet all graduate accounting entrance requirements by the first semester of their senior year. Professional Accounting M.S. applicants meeting all the following criteria will qualify for the waiver of the GMAT exam:

1. 3.0 Cumulative GPA on upper division courses at UHCL (minimum of 24 hours required).
2. 3.0 GPA on upper division accounting courses at UHCL (minimum of 12 hours required).

In addition, students in the integrated degree program will be required to have a cumulative UHCL GPA of at least 3.000 for admission to the M.S. in Professional Accounting. The B.S. in Professional Accounting will not be awarded until all requirements for the M.S. are

completed. Students failing to be admitted into the graduate Professional Accounting program will revert to the B.S. in Accounting degree program and proceed in the normal manner to graduation. Students planning on taking the CPA examination are required to have a 3-semester credit hour ethics course, which has been approved by the Texas State Board of Public Accountancy (TSBPA). ACCT 4346 Ethics for Accountants has been approved by TSBPA and satisfies the ethic course requirement.

The integrated B.S. and M.S. in Professional Accounting degree program will include 120 hours of undergraduate and 30 hours of graduate course work.

Students in the integrated Professional Accounting degree program may complete a Concentration in Management Information Systems by completing a set combination of undergraduate and graduate course work.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Additional Information	
WRIT 1301 and WRIT 1302 must be "C-" or better.	
Mathematics (3 hours)	
MATH 1324	Mathematics for Business and Social Sciences. Credit Hours: 3
Additional Information	
Math 1324 must be "C-" or better.	
Life and Physical Sciences (6 hours)	
Choose two course from the approved list:	

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose one course from the approved list:	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3

PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose one course from the approved list:	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
American History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social and Behavioral Sciences (3 hours)	
Choose one course from the approved list:	
ECON 2301	Principles of Macroeconomics Credit Hours: 3
Additional Information	
Other courses may meet this requirement. However, ECON 2301 will still be required for all Business majors.	
Component Area Option (6 hours)	
Two 1- hour Life and Physical Science Labs	
COMM 1315	Public Speaking Credit Hours: 3
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (48 hours)

The following courses, or their approved equivalents, together with accounting and

economics principles and business law, constitute the business core and are required of all business students. No more than 6 hours of grades in the range of D+, D or D- are permitted in upper-level (33XX and 43XX) Business Core Requirements.

Core Requirements for Business Majors (48 hours)

ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ACCT 2302	Principles of Accounting II- Managerial Credit Hours: 3
BAPA 1301	Business Principles Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
ISAM 1305	Business Computer Applications Credit Hours: 3
DSCI 3321	Statistics I Credit Hours: 3
DSCI 3331	Quantitative Methods for Management Credit Hours: 3
ECON 3311	Money and Banking Credit Hours: 3
FINC 3331	Business Finance Credit Hours: 3
ISAM 3303	Information Systems for Management Credit Hours: 3
LEGL 3301	Business Law Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 4312	Strategic Management (Capstone) Credit Hours: 3
MKTG 3301	Principles of Marketing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3

Additional Information

MGMT 4312 Capstone course--requires permission.

When ECON 2301 is used to satisfy the Social Behavioral Sciences Requirement, an additional elective will be needed.

Undergraduate Requirements (24 hours)

All major requirements must be grades of C- or higher.

Undergraduate Courses (21 hours)

ACCT 3333	Cost Accounting Credit Hours: 3
ACCT 3341	Intermediate Accounting I Credit Hours: 3
ACCT 3342	Intermediate Accounting II Credit Hours: 3
ACCT 4331	Federal Taxation of Individuals Credit Hours: 3
ACCT 4332	Financial Information Systems Credit Hours: 3
ACCT 4341	Auditing I Credit Hours: 3
ISAM 3304	Introduction to Business Applications Programming Credit Hours: 3

Accounting Electives (3 Hours)

3 hours Undergraduate ACCT Elective (Any one ACCT 33XX or 43XX)

Additional Information

ACCT 3331 & ACCT 3332 cannot be used for this degree.

Undergraduate Electives (6 hours)

Business Elective (3 hours)

3 hours of Undergraduate Business Elective upper-level (33XX or 43XX)

Additional Information

ACCT 3331 & ACCT 3332 cannot be used for this degree.

General Elective (3 hours)

3 hours of Undergraduate General Elective upper-level (33XX or 43XX)

Additional Information

ACCT 3331 & ACCT 3332 cannot be used for this degree.

Graduate Courses (30 hours)**Graduate Courses (18 hours)**

ACCT 4346	Business Ethics for Accountants Credit Hours: 3
ACCT 5234	Corporate and Pass Through Entity Taxation Credit Hours: 3
ACCT 5431	Advanced Accounting Credit Hours: 3
ACCT 5432	Acct for Govt & Not Profit Credit Hours: 3
ACCT 6732	Seminar in Fraud Examination and Audit Risk (Capstone) Credit Hours: 3
LEGL 5131	Legal Concepts for the Business Professional Credit Hours: 3

Graduate Electives (3 hours)

3 hour FINC Elective Graduate Level (5XXX or 6XXX)

MIS Concentration Requirements (9 hours)

Select three from the following six courses (9 hours)

ACCT 5333	Fundamentals of Databases and Business Intelligence Credit Hours: 3
ACCT 5334	Advanced Database Applications Development Credit Hours: 3
ACCT 5335	Information Systems Audit and Security Credit Hours: 3
ACCT 5336	Systems Analysis and Design Credit Hours: 3
ACCT 5337	ERP System Concepts and Practices Credit Hours: 3
ACCT 5438	Fundamentals of Data Analytics in Accounting Credit Hours: 3

Graduation Requirements

- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework: (1) in the major and (2) in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.
- Students must earn grades of C or higher (C- not acceptable) in the graduate (5000-6000 level) portion of the program. A minimum GPA of 3.0 is required for graduation.

Psychology B.S.

The undergraduate General Psychology Program at UHCL provides a high-quality curriculum that meets student career goals and community needs. Students have the opportunity to receive a comprehensive overview of psychology, develop academic and critical thinking skills, reach career goals, uphold ethical standards, and become life-long learners.

University Core Requirements (42 Hours)**Communication (6 hours)**

WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II

	Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
PSYC 2301	Introduction to Psychology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	

PSYC 1100	Learning Frameworks Credit Hours: 1
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College Core Requirements (12 hours)

48 hours of upper-level credit must be "C" or better.

Writing Requirement (3 hours)

Choose ONE of the following courses.

WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (39 hours)

Choose ONE of the following courses.

HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

Humanities Requirement (3 hours)

Choose ONE of the following courses

HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

Diversity Requirement (6 hours)

Choose ONE ANTH and ONE SOCI from the list below Additional courses MAY count with adviser permission

ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
ANTH 3330	Interdisciplinary Perspectives in Global Health Credit Hours: 3
ANTH 3355	Topics in Asian Studies Credit Hours: 3
ANTH 3357	Topics in African Studies Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 3361	Anthropology of Food Credit Hours: 3
ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ANTH 4334	Native Americans Credit Hours: 3
ANTH 4341	Gender and Sexuality in Global Perspectives Credit Hours: 3
ANTH 4342	Human Rights, Social Justice, Health Credit Hours: 3
ANTH 4351	Families, Communities, and Globalization Credit Hours: 3
SOCI 3352	Urban Sociology Credit Hours: 3
SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4317	Race and the Law Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3
SOCI 4357	Sociology of Family, Work, and Gender Credit Hours: 3

SOCI 4363	American Immigration and the Immigrant Experience Credit Hours: 3
SOCI 4365	Sociology of Mental Health and Illness Credit Hours: 3
Psychology Required Courses (12 hours + 3 hours from CORE) Psychology Research (12 hours)	
For students starting Fall 2020 PSYC 2317 is a required prerequisite for PSYC 4370 & PSYC 4371	
PSYC 2301	Introduction to Psychology Credit Hours: 3
PSYC 2317	Statistical Methods in Psychology Credit Hours: 3
PSYC 3315	Psychological Thinking Credit Hours: 3
PSYC 4370	Nonexperimental Methods and Statistics Credit Hours: 3
PSYC 4371	Experimental Methods and Statistics Credit Hours: 3

Psychology Core Requirements (15 hours)

Choose FIVE courses from the following list	
PSYC 2314	Human Growth and Development Lifespan Credit Hours: 3
PSYC 2319	Social Psychology Credit Hours: 3
PSYC 2330	Biological Psychology Credit Hours: 3
PSYC 3321	Learning Credit Hours: 3
PSYC 3331	Theories of Personality Credit Hours: 3
PSYC 4382	Cognitive Psychology Credit Hours: 3
Psychology Diversity (3 hours)	
Choose ONE from the list below. Additional courses may count with adviser permission	
PSYC 4334	Psychology of Women

	Credit Hours: 3
PSYC 4348	Development of Gender and Racial Identity Credit Hours: 3
PSYC 4349	Psychology of Latina/os in the U.S. Credit Hours: 3
PSYC 4356	The Aging Experience Credit Hours: 3

Psychology Required Electives (6 hours)

Psychology Required Electives (2 courses, 6 hours)

Choose 3300/4300 level Psychology courses. These may be additional courses chosen from the Psychology Core. (see above)

Elective Courses (30 hours)

Choose electives from any level 1300–4300; 12 hours must be at the 3300/4300 level.

Public Service Leadership B.S.

The major in Public Service Leadership serves students seeking leadership preparation for careers in public service. Public service leaders may be administrators, trainers, public officials, or leaders in municipal fire, emergency management, and police departments. This major provides students with knowledge and skills pertaining to leadership, managerial principles, conflict resolution, strategic planning, and organizational communication.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3

Mathematics (3 hours)

Choose ONE of the following courses.

MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3

Life and Physical Sciences (6 hours)

Choose TWO of the following courses.

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I

Credit Hours: 3

PHYS 2326	University Physics II Credit Hours: 3
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Language, Philosophy and Culture (3 hours)

Choose ONE of the following courses.

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3

Creative Arts (3 Hours)

Choose ONE of the following courses.

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3

U.S. History (6 hours)

HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3

Government/ Political Science (6 hours)

POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3

Social Behavioral Sciences (3 hours)

Choose ONE of the following courses.

ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3

ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3
SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (3 hours)

48 hours of upper-level credit must be "C" or better.

Overview Requirement

Choose ONE course from: Any PSYC, ANTH, SOCI, or CRIM course at the 3300 or 4300 level.

Major Requirements (54 hours)

Choose THREE of the following courses. (9 hours)

For CRIM 3312, the following may be substituted: SOCI 3312

ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
CRIM 3312	Criminology Credit Hours: 3
POLS 3301	Contemporary Issues in Political Science Credit Hours: 3
PSYC 3331	Theories of Personality Credit Hours: 3
Required Courses (6 hours)	
CRIM 4384	Statistics Credit Hours: 3

CRIM 4385	Research Methods Credit Hours: 3
PSL Core Coursework (36 hours)	
PSLD 4325	Budgeting in Public Service Credit Hours: 3
PSLD 4326	Human Resources Credit Hours: 3
PSLD 4340	Current Issues in Representative Bureaucracy Credit Hours: 3
PSLD 4342	Project Management Credit Hours: 3
PSLD 4343	Public Service Management Credit Hours: 3
PSLD 4344	Public Service Leadership Credit Hours: 3
PSLD 4345	Strategic Planning Credit Hours: 3
PSLD 4347	Managerial Issues in Diversity Credit Hours: 3
PSLD 4348	Crisis and Emergency Management Credit Hours: 3
PSLD 4349	Ethics and Law Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3
WRIT 4310	Writing for the Public: Developing Non-Profit Communication Strategies Credit Hours: 3
Elective Requirements (24 hours)	
24 hours of electives (any 1300, 2300, 3300, or 4300 level courses).	

Registered Nurse-Bachelor of Science Nursing B.S.N.

The RN-BSN program is customized for licensed registered nurses who want to earn a bachelor's degree in nursing. The program provides an opportunity for a registered nurse (RN) to pursue a Bachelor of Science in Nursing (BSN) degree in two to six semesters depending upon full-

time or part-time status. The degree features a primarily didactic program and experiential learning opportunities. Moreover, the program allows registered nurses to enhance their managerial and leadership skills and advance as nurse managers in various healthcare provider and payer organizations. A BSN is a prerequisite for admission to graduate nursing programs in advanced clinical practice and research. The BSN can open doors not only for those seeking academic progression but also for those seeking careers in nursing education.

The BSN program is designed to expand knowledge and skills beyond the clinical aspects of nursing that are generally acquired while preparing for the Associate of Applied Science in Nursing (AASN) or diploma in nursing and the RN licensure examinations. As such, the BSN program focuses on expanding the horizons of graduates by giving them a much more extensive background in evidence-based practice, patient safety, legal issues, ethical standards, and technology integration as well as healthcare systems and policies. The BSN will also allow students to receive crucial training in key areas such as communication, leadership, critical thinking, and clinical reasoning: students will therefore gain much-needed knowledge to deal effectively with the complex and changing future of healthcare delivery. In doing so, students will be provided with opportunities to use evidence-based practice to analyze a variety of issues in professional nursing practice that are essential for providing effective leadership in nursing care across the healthcare continuum.

The UHCL BSN program is offered in a full-time track for RN-BSN students who are capable of taking a full semester load (12-15 course credit

hours). There is also a part-time track (6-9 credit hours) for those nurses who are working and cannot commit to the 12-15 credit hours per semester needed to be full-time students. It is expected that students pursuing the full-time track will be able to complete the RN-BSN in 3 semesters. Students pursuing the part-time track will be able to complete the RN-BSN in 6 semesters. The Nursing classes will be offered at the Pearland campus during weekdays in the morning, afternoon, and/or early evening time frames. The 30 upper-level hours in Nursing must be completed in residence.

Students may be admitted to the RN-BSN program in a fall or spring semester; applications are reviewed as they are received. For more information about the RN-BSN program, see <https://www.uhcl.edu/academics/degrees/rn-nursing-bsn>.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3
MATH 1342	Elementary Statistical Methods Credit Hours: 3
Life and Physical Sciences (6 hours)	
BIOL 2301	Anatomy & Physiology I Credit Hours: 3

BIOL 2302	Anatomy & Physiology II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	
Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
PSYC 2301	Introduction to Psychology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Option (3 hours)	
PSYC 1100	Learning Frameworks Credit Hours: 1

BIOL 2101	Laboratory for Anatomy and Physiology I Credit Hours: 1
BIOL 2102	Laboratory for Anatomy and Physiology II Credit Hours: 1

In addition to the 42 hours of University Core curriculum above, the Nursing Core requirement below will be allowed for transfer.

Nursing Core Requirements (33 hours)

ADN Nursing courses

In addition to the courses below, 26 hours of RSNG coursework from an Associate Degree in the Nursing program may be transferred for credit.

BIOL 2121	Laboratory for Microbiology for Science Majors Credit Hours: 1
BIOL 2321	Microbiology for Science Majors Credit Hours: 3

College of Human Sciences and Humanities

30 hours of resident, upper-level credit must be a "C" or better.

Major Requirements (30 hours)

Courses

One of the courses below must be writing-intensive.

NURS 3309	Role Transition Credit Hours: 3
NURS 3310	Legal and Ethical Issues Credit Hours: 3
NURS 3311	History and Theories of Nursing Credit Hours: 3
NURS 3313	Community Health Nursing Credit Hours: 3
NURS 3314	Trends and Issues in Nursing Practices Credit Hours: 3
NURS 3323	Community Health Nursing Project Credit Hours: 3

NURS 4313	Nursing Research Credit Hours: 3
NURS 4314	Advanced Leadership and Management Credit Hours: 3
NURS 4324	Advanced Leadership and Management Practicum Credit Hours: 3
PSYC 4370	Nonexperimental Methods and Statistics Credit Hours: 3

Social Work B.S.W.

The undergraduate program in Social Work is fully accredited by the Council on Social Work Education. This educational program leads to the Bachelor of Social Work degree. Social work foundation content is found in nine interrelated areas: human behavior and the social environment (HBSE); social welfare policy; social work research; social work values and ethics; diversity; promoting social and economic justice; working with populations at risk; social work practice; and field placements. Considerable attention is focused on the vulnerable populations found in the Houston/Galveston metropolitan area.

The integration of content focused on diversity, values, ethics, and social justice throughout the curriculum is facilitated by the adoption and implementation of the generalist practice perspective. Generalist practice applies a wide variety of theoretical perspectives reflecting an integrated bio-psycho-social approach, professional values, and ethics and skills with diverse persons, families, groups, organizations, and communities utilizing the Planned Change Process.

Once a student has identified social work as a major, he or she must also apply for and receive formal admission to the BSW program. Students must complete the following requirements to be eligible for consideration for formal admission to the program:

1. Completion of essential elements of Texas Core Requirements (see University Core).
2. Completion of Introduction to Psychology with a grade of "C" or higher.
3. Completion of Introduction to Sociology with a grade of "C" or higher.
4. Completion of one of the following natural science courses (with a lab): General Biology; Anatomy & Physiology; General Biology for non-science majors; or The Human Body.
5. Completion of SWRK 3301 with a grade of "C" or higher.
6. Completion of SWRK 3304 with a grade of "C" or higher.
7. Cumulative grade point average of 2.500 or higher.

Students are encouraged to meet with UHCL BSW program faculty early in the process when considering a social work major in order to expedite graduation. For any updates regarding accreditation-related curricular changes, please contact the BSW program faculty.

Once all prerequisites for admission have been completed, a student may apply for formal admission to the BSW program at any time throughout the academic year. The application packet must include the following documents and information:

1. Admission Application and corresponding checklist.
2. An unofficial copy of all college transcripts
3. 3 recommendation forms from previous instructors or work supervisors; forms are provided by the program.
4. A 4-6 page autobiographical statement. Applicants should be certain that their autobiographical statement is a strong sample of their ability to express themselves in writing. The statement should include a description of the student's educational, professional, and/or life goals; personal and professional objectives; social work or human service experience; contact, exposure to, or experience with diverse groups; and any other information the student believes may be important when considering his/her application for admission to the program.

Application packets are available on the [BSW program website](#), at the [HSH Office of Advising](#), and through program faculty.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3
MATH 1332	Contemporary Mathematics Credit Hours: 3

Life and Physical Sciences (6 hours)

Students must choose ONE of the following: BIOL 1306, BIOL 1308, or BIOL 2301. In addition, students must choose ONE additional course from the list below.

ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3

Language, Philosophy and Culture (3 hours)

Choose ONE of the following courses.

HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Grade must be "C" or better.	
PSYC 2301	Introduction to Psychology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1- hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (54 hours)

54 hours of upper-level credit must be a "C" or better.

Core Requirement	
Grade must be a "C" or better. Choose ONE of the following courses.	
WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (60 hours)

Sociology Course (Program Prerequisite)	
Grade must be "C" or better.	
SOCI 1301	Introduction to Sociology Credit Hours: 3
Interdisciplinary Requirements	
Choose any TWO of the following courses. Students pursuing a Women's and Gender Studies Certificate should complete WGST 1301 and/or WGST 4308 as one of their two courses.	
ANTH 4342	Human Rights, Social Justice, Health Credit Hours: 3
HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3
SOCI 4328	Social Conflict and Mediation Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
WGST 4308	Perspectives in Women's and Gender Studies Credit Hours: 3

WGST 4372	Seminar in Women's and Gender Studies Credit Hours: 3
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Overview Requirement

Students must complete 2 courses from 2 different HSH disciplines: Psychology, Sociology, or Anthropology.

Grades must be "C" or better.

Psychology Overview Option

Students pursuing a Women's Studies Certificate can take PSYC 4334 and it will count for the BSW degree and the WGST Certificate; other students may choose any course from the list below.

PSYC 3321	Learning Credit Hours: 3
PSYC 3331	Theories of Personality Credit Hours: 3
PSYC 4334	Psychology of Women Credit Hours: 3
PSYC 4382	Cognitive Psychology Credit Hours: 3

Sociology Overview Option

SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
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Anthropology Overview Option

All students must take ANTH 3311 if they choose to do an Anthropology Overview. Students interested in completing a Women's Studies Certificate in addition to the BSW should choose either ANTH 4301 or ANTH 4341. These courses may be taken only if they are cross-listed with WGST. ANTH 4301 must have a topical focus on gender and be cross-listed with WGST.

ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4341	Gender and Sexuality in Global Perspectives Credit Hours: 3

Program Prerequisites (6 hours)

Grade must be "C" or better.

SWRK 3301	Introduction to Social Work Credit Hours: 3
SWRK 3304	Issues and Ethics in Social Work Credit Hours: 3

Program Courses (39 hours)

Grade must be "C" or better.

SWRK 3314	Diversity and Human Behavior in the Social Environment Credit Hours: 3
SWRK 3317	Social Welfare Policy and Services Credit Hours: 3
SWRK 3324	Oppression, Diversity, and Social Justice Credit Hours: 3
SWRK 4318	Social Work Practice I Credit Hours: 3
SWRK 4319	Social Welfare Policy Analysis Credit Hours: 3
SWRK 4328	Social Work Practice II Credit Hours: 3
SWRK 4338	Social Work Practice III Credit Hours: 3
SWRK 4363	Experimental Methods and Statistics Credit Hours: 3
SWRK 4370	Nonexperimental Methods and Statistics Credit Hours: 3
SWRK 4619	Social Work Internship I Credit Hours: 6
SWRK 4629	Social Work Internship II Credit Hours: 6

Additional Information

- SWRK 4318
- SWRK 4319
- SWRK 4328
- SWRK 4338
- SWRK 4619
- SWRK 4629

Electives (15 hours)

Can be any courses at UHCL (1300/2300/3300/4300 level). Economics and Spanish courses are highly recommended. Other SWRK courses, if available, are also recommended.

Students pursuing the BSW may also complete a Women's and Gender Studies certificate (9

SCH) or any of the UHCL minors (15 SCH) as they complete their plans of study. It is recommended that students interested in pursuing a Certificate or a minor meet with their BSW program faculty adviser as soon as possible to integrate the required courses into their BSW plan of study.

Sociology B.S.

Are you curious about social problems? Do you have ideas about how to improve society? Are you interested in social policies and their effects? If so, Sociology may be for you. A Sociology degree prepares you for a wide range of careers in the following areas: business and industry, government, community and social services, the legal system, education, and research. Our majors work in nonprofit organizations, government, marketing, urban planning, and human resources. They also work with at-risk youth, senior citizens, and people struggling with substance abuse. Our faculty have areas of specialization in family sociology, medical sociology, immigration, religion, race and ethnic relations, social inequality, complex organizations, nonprofit organizations, and conflict resolution.

University Core Requirements (42 Hours)

Communication (6 hours)	
WRIT 1301	Composition I Credit Hours: 3
WRIT 1302	Composition II Credit Hours: 3
Mathematics (3 hours)	
Choose ONE of the following courses.	
MATH 1314	College Algebra Credit Hours: 3

MATH 1332	Contemporary Mathematics Credit Hours: 3
Life and Physical Sciences (6 hours)	
Choose TWO of the following courses.	
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1304	Solar System Credit Hours: 3
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1308	Biology for Non-Science Majors I Credit Hours: 3
BIOL 1309	Biology for Non-Science Majors II Credit Hours: 3
BIOL 2301	Anatomy & Physiology I Credit Hours: 3
BIOL 2302	Anatomy & Physiology II Credit Hours: 3
CHEM 1305	Introductory Chemistry I Credit Hours: 3
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1312	General Chemistry II Credit Hours: 3
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1302	Environmental Science II Credit Hours: 3
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1304	Historical Geology Credit Hours: 3
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1302	College Physics II Credit Hours: 3
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
Language, Philosophy and Culture (3 hours)	

Choose ONE of the following courses.	
HUMN 1301	Humanities Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3
PHIL 1301	Introduction to Philosophy Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
Creative Arts (3 Hours)	
Choose ONE of the following courses.	
ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3
ARTS 2379	Arts and the Child Credit Hours: 3
U.S. History (6 hours)	
HIST 1301	United States History I Credit Hours: 3
HIST 1302	United States History II Credit Hours: 3
Government/ Political Science (6 hours)	
POLS 2305	Federal Government Credit Hours: 3
POLS 2306	Texas Government Credit Hours: 3
Social Behavioral Sciences (3 hours)	
Choose ONE of the following courses.	
ANTH 2346	General Anthropology Credit Hours: 3
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
PSYC 2301	Introduction to Psychology Credit Hours: 3

SOCI 1301	Introduction to Sociology Credit Hours: 3
Public Speaking (3 hours)	
COMM 1315	Public Speaking Credit Hours: 3
Component Area Options (3 hours)	
Two 1-hour Life and Physical Science Labs are required co-requisites for the chosen science courses.	
PSYC 1100	Learning Frameworks Credit Hours: 1

College Core Requirements (3 hours)

48 hours of upper-level credit must be "C" or better.

Core Requirement (3 hours)

Choose ONE of the following courses.	
WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3

Major Requirements (54 hours)

Choose ONE of the following courses.

HUMN 3374	Critical Inquiry Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
PHIL 3331	Ethics Credit Hours: 3
PHIL 4314	The Great Philosophers I Credit Hours: 3
PHIL 4315	The Great Philosophers II Credit Hours: 3

Diversity Requirement

Choose TWO of the following courses. For ANTH 4341, the following may be substituted: SOCI 4341 or WGST 4341. For PSYC 4356, the following may be substituted: SOCI 4356

ANTH 3355	Topics in Asian Studies Credit Hours: 3
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ANTH 3357	Topics in African Studies Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
ANTH 4341	Gender and Sexuality in Global Perspectives Credit Hours: 3
PSYC 4334	Psychology of Women Credit Hours: 3
PSYC 4356	The Aging Experience Credit Hours: 3
SOCI 3317	Religion and Immigration Studies in Houston Credit Hours: 3
SOCI 3352	Urban Sociology Credit Hours: 3
SOCI 4316	Women and the Law Credit Hours: 3
SOCI 4317	Race and the Law Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3
SWRK 3324	Oppression, Diversity, and Social Justice Credit Hours: 3

Choose ONE of the following courses.

ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
ANTH 3361	Anthropology of Food Credit Hours: 3
ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3

Choose ONE of the following courses.

PSYC 3331	Theories of Personality Credit Hours: 3
PSYC 4332	Psychology of Work Credit Hours: 3
PSYC 4382	Cognitive Psychology Credit Hours: 3

Choose ONE of the following courses.

SOCI 1301	Introduction to Sociology Credit Hours: 3
SOCI 1306	Social Problems Credit Hours: 3

Required Overview courses

SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3

Required Methodology courses

SOCI 4384	Statistics Credit Hours: 3
SOCI 4385	Research Methods Credit Hours: 3

Additional Information

Both of the required methodology courses should be completed for credit before the end of a student's junior year. Students are encouraged to take Research Methods (offered in fall) before taking Statistics (offered in spring).

Core Courses

Choose EIGHT of the following courses.

SOCI 2301	Intro to Social Work Credit Hours: 3
SOCI 2319	Multi-Cultural Studies Credit Hours: 3
SOCI 3317	Religion and Immigration Studies in Houston Credit Hours: 3
SOCI 3351	Political Sociology Credit Hours: 3
SOCI 3352	Urban Sociology Credit Hours: 3
SOCI 4316	Women and the Law Credit Hours: 3
SOCI 4317	Race and the Law Credit Hours: 3
SOCI 4323	Religion in Society Credit Hours: 3
SOCI 4324	Organizations in Society Credit Hours: 3
SOCI 4328	Social Conflict and Mediation Credit Hours: 3

SOCI 4332	Sociology of Law Credit Hours: 3
SOCI 4335	Social Change and Social Movements Credit Hours: 3
SOCI 4341	Women in Society Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3
SOCI 4357	Sociology of Family, Work, and Gender Credit Hours: 3
SOCI 4358	Family and Society Credit Hours: 3
SOCI 4359	Family Policy Credit Hours: 3
SOCI 4363	American Immigration and the Immigrant Experience Credit Hours: 3
SOCI 4364	Medical Sociology Credit Hours: 3
SOCI 4365	Sociology of Mental Health and Illness Credit Hours: 3
SOCI 4367	Women's Health and Sexuality Credit Hours: 3

Elective Requirements (21 hours)

Up to 15 hours could be any level electives (any 1300/2300/3300/4300 level courses) 6 hours must be upper-level (any 3300/4300 level courses.)

Sociology Concentration Areas

Sociology students are encouraged to structure their plans of study to reflect concentrations within the discipline. The concentrations below have been developed by the Sociology faculty to help students design degree plans that reflect their career and/or graduate education goals.

Criminology Concentration

Must complete THREE of the following courses with grades of "C" or higher:

SOCI 3312	Criminology Credit Hours: 3
SOCI 3335	Deviance Credit Hours: 3

SOCI 3351	Political Sociology Credit Hours: 3
SOCI 4332	Sociology of Law Credit Hours: 3
SOCI 4335	Social Change and Social Movements Credit Hours: 3

Diversity Concentration

Must complete THREE of the following courses with grades of "C" or higher:

SOCI 3317	Religion and Immigration Studies in Houston Credit Hours: 3
SOCI 3352	Urban Sociology Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3
SOCI 4363	American Immigration and the Immigrant Experience Credit Hours: 3

Family Sociology Concentration

Must complete THREE of the following courses with grades of "C" or higher:

ANTH 4351	Families, Communities, and Globalization Credit Hours: 3
SOCI 4356	The Aging Experience Credit Hours: 3
SOCI 4357	Sociology of Family, Work, and Gender Credit Hours: 3
SOCI 4358	Family and Society Credit Hours: 3
SOCI 4359	Family Policy Credit Hours: 3

Health and Medicine Concentration

Must complete THREE of the following courses with grades of "C" or higher:

ANTH 3362	Medicine, Bodies, and Culture Credit Hours: 3
SOCI 4364	Medical Sociology Credit Hours: 3
SOCI 4365	Sociology of Mental Health and Illness Credit Hours: 3
SOCI 4367	Women's Health and Sexuality Credit Hours: 3

Legal Studies Concentration

Must complete THREE of the following courses with grades of "C" or higher:

SOCI 4316	Women and the Law Credit Hours: 3
SOCI 4317	Race and the Law Credit Hours: 3
SOCI 4328	Social Conflict and Mediation Credit Hours: 3
SOCI 4332	Sociology of Law Credit Hours: 3
SOCI 4335	Social Change and Social Movements Credit Hours: 3

Urban Studies Concentration

Must complete THREE of the following courses with grades of "C" or higher:

SOCI 3351	Political Sociology Credit Hours: 3
SOCI 3352	Urban Sociology Credit Hours: 3
SOCI 4335	Social Change and Social Movements Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3
SOCI 4363	American Immigration and the Immigrant Experience Credit Hours: 3

Women's Studies Concentration

Must complete THREE of the following courses with grades of "C" or higher: For SOCI 4308, the following may be substituted: PSYC 4308, WGST 4308, or HUMN 4308.

SOCI 4308	Perspectives in Women's and Gender Studies Credit Hours: 3
SOCI 4341	Women in Society Credit Hours: 3
SOCI 4367	Women's Health and Sexuality Credit Hours: 3
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
WGST 4312	Women of Color Credit Hours: 3
WGST 4337	Violence Against Women Credit Hours: 3

Work and Occupations Concentration

Must complete THREE of the following courses with grades of "C" or higher:

SOCI 4311	Social Psychology Credit Hours: 3
SOCI 4324	Organizations in Society Credit Hours: 3
SOCI 4328	Social Conflict and Mediation Credit Hours: 3
SOCI 4357	Sociology of Family, Work, and Gender Credit Hours: 3

Certificate

Applied Behavior Analysis certificate

The undergraduate certificate in Behavior Analysis is designed to meet the coursework requirements for the Behavior Analyst Certification Board (BACB). This certificate is appropriate for UHCL undergraduate psychology majors, as well as students who have already completed a bachelor's degree, who wish to eventually sit for the Board Certified Assistant Behavior Analyst (BCaBA) examination. Additional detail regarding this certification can be found on the BACB's website: www.bacb.com.

Certificate Requirements

The coursework required to satisfy this certificate includes the following:

Coursework	
Students must earn at least a "B-" in each class to earn the undergraduate certificate.	
PSYC 3321	Learning Credit Hours: 3
PSYC 4321	Applied Behavior Analysis I Credit Hours: 3
PSYC 4322	Applied Behavior Analysis II Credit Hours: 3
PSYC 4323	Research and Practice in Behavior Analysis Credit Hours: 3

The certificate coordinator is [Dr. Jennifer Fritz](#), BCBA-D. Dr. Fritz can be reached at fritzj@uhcl.edu.

Biotechnology Certificate

A student may work toward a certificate in Biotechnology, which requires the completion of at least seven biology laboratory courses at UHCL. Training in these laboratories will prepare students for careers in academic, industrial, biomedical, clinical, state/federal or environmental areas.

The certificate option targets students who are working toward or have already completed a B.S. degree and wish to add course work that will be focused on the Biotechnology field. Current UHCL students (degree-seeking B.S. or M.S. students or post-baccalaureate non-degree seeking students majoring in Biology, Environmental Science or Chemistry) who wish to participate in the certificate option must be in good academic standing, maintain a minimum 2.500 GPA in the laboratory courses and be advised by a faculty member in the Biology program. Students must have completed introductory biology (six hours), general chemistry (eight hours), organic chemistry (eight hours) and calculus as general pre-requisites. In addition, students must have completed or be currently enrolled in the following courses: Biochemistry, Cell Biology or Cell Physiology, Genetics, Animal/Human/Plant Physiology and Microbiology.

Certificate Requirements

A minimum of seven laboratory courses must be completed for the certificate in Biotechnology.

Required Courses

Complete the 3 courses listed.

BIOL 4252	Molecular Biology Laboratory Credit Hours: 2
BIOL 4253	Laboratory for Biotechnology Credit Hours: 2
BIOL 4254	Laboratory for Eukaryotic Gene Expression Credit Hours: 2
Additional Courses	
Select at least 4 of the courses listed. Up to 6 hours total may be taken in Independent Study.	
BIOL 4189	Independent Study in Biology Credit Hours: 1
BIOL 4289	Independent Study in Biology Credit Hours: 2
BIOL 4291	Laboratory Topics in Biology Credit Hours: 2
BIOL 4355	Tissue Culture Credit Hours: 3
BIOL 4389	Independent Study in Biology Credit Hours: 3
BIOL 4391	Selected Topics in the Biological Sciences Credit Hours: 3

Early Childhood Leadership Certificate

The Undergraduate Early Childhood Leadership Certificate is a plan of study specifically designed to prepare early childhood professionals to become effective directors and administrators of high-quality early childhood programs. The certificate will be available fully online and may be taken as a part of the following degrees at UHCL or as a stand-alone certificate.

- Bachelor of Science in Early Childhood Care and Education
- Bachelor of Applied Science - Interdisciplinary Studies: Educator of Young Children

As part of the course content, candidates will complete the Aim4Excellence modules offered through the McCormick Center for Early Childhood Leadership culminating in the receipt of the National Director Credential.

Certificate Requirements

Required Courses (12 hours)	
ECED 4325	Early Childhood Program Development & Management I - Leadership Strategies and Staff Development Credit Hours: 3
ECED 4327	Early Childhood Program Development & Management II - Managing Center Operations and Finance Credit Hours: 3
ECED 4329	Early Childhood Program Development & Management III - Implementing and Evaluating the Program Credit Hours: 3
Choose one of the following:	
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 3313	Organizational Communication Credit Hours: 3

Public Service Leadership Certificate

A certificate in Public Service Leadership is awarded to students who complete the following courses and who apply for certificate recognition to the director of the Public Service Leadership program.

Certificate Requirements

Courses

In addition to PSLD 4343, select 3 of the remaining courses listed.	
PSLD 4343	Public Service Management Credit Hours: 3
PSLD 4344	Public Service Leadership Credit Hours: 3
PSLD 4345	Strategic Planning Credit Hours: 3
PSLD 4347	Managerial Issues in Diversity Credit Hours: 3
PSLD 4348	Crisis and Emergency Management Credit Hours: 3

WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
WGST 4308	Perspectives in Women's and Gender Studies Credit Hours: 3
WGST 4372	Seminar in Women's and Gender Studies Credit Hours: 3

Women's and Gender Studies Certificate

Women's and Gender Studies is an interdisciplinary curriculum administered by the College of Human Sciences and Humanities. Women's and Gender Studies courses offer challenging new perspectives by exploring the special contributions of women and the impact of gender in a variety of academic disciplines. Women's and Gender Studies supports many majors, including those in anthropology, history, humanities, literature, psychology and sociology. Women's and Gender Studies courses fulfill major requirements in several of these areas.

To complete a certificate in Women's and Gender Studies, students should visit with the [Women's and Gender Studies program online](#) to register.

Certificate Requirements

Undergraduate: Nine hours of Women's and Gender Studies courses in any combinations.

Courses

One of the following is highly recommended.

Minors

Minor in Actuarial Science

This minor is designed to prepare students for careers as actuaries.

Required courses in the minor (15 hours)	
ACCT 2301	Principles of Accounting I - Financial Credit Hours: 3
ECON 2301	Principles of Macroeconomics Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3
STAT 4346	Probability for Actuarial Exam P1 Credit Hours: 3
STAT 4348	Introduction to Financial Math for Exam FM Credit Hours: 3

Minor in Addictions Counseling

The 15-hour Minor in Addictions Counseling is offered by the UHCL Counseling Program through the College of Education and will provide students with foundational knowledge in Addictions Counseling including current understanding of addiction, treatment planning, application to practice, and professional readiness. This minor is of special interest to students from a variety of fields including mental or physical health, criminal justice, or education.

Students with interest in the Minor in Addictions Counseling are required to meet with the Counseling Program Coordinator for approval and to identify 5 courses from the following:

Select two (2):	
COUN 1301	Addictions Counseling Credit Hours: 3
COUN 1304	Screening, Assessment, Diagnosis, and Referral Credit Hours: 3
COUN 2301	Treatment Planning for Relapse Prevention Credit Hours: 3
Select three (3):	
COUN 3307	Wellness and Professional Practice Credit Hours: 3
COUN 3312	Socio-Cultural and Political Advocacy in Addictions Counseling Credit Hours: 3
COUN 4301	Documentation, Ethics and the Law for Addictions Counselors Credit Hours: 3
COUN 4307	Consultation and Supervision for Addictions Professionals Credit Hours: 3

Minor in Africana Studies

The minor in Africana Studies includes courses that explore the experience of peoples of African descent in both Africa and the diaspora. The minor will expose students to scholarship from historical, cross-cultural, and interdisciplinary perspectives on race, racism, colonialism, and contemporary issues relevant to African population and members of the African diaspora. The courses also explore the diverse cultural and social practices that form the unique identities among the different African population and members of the African diaspora in the Americas and around the globe. The courses

included in this minor come from different programs and departments within HSH.

Students are required to take 15 hours to complete the Africana studies minor as indicated below. Students for this minor must at least earn "C" or better for all minor courses. Students must take coursework in at least two different disciplines (indicated by four-letter rubrics) from among the HSH offerings below.

Required courses in the minor (15 hours)

Please see additional notes regarding required course topics.

ANTH 3357	Topics in African Studies Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
CRIM 4335	Race and Justice Credit Hours: 3
CRIM 4391	Selected Topics in Criminology Credit Hours: 3
HIST 4315	Studies in African American History Credit Hours: 3
HIST 4325	Studies in Middle Eastern History Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3
LITR 4338	American Minority Literature Credit Hours: 3
POLS 4312	Race and Ethnic Politics Credit Hours: 3
SOCI 4329	Egypt in Transition Credit Hours: 3
SOCI 4355	Minorities in America Credit Hours: 3
WGST 4312	Women of Color Credit Hours: 3

Additional Information

- ANTH 3358, when the topic is Islam in Africa
- ANTH 4301, when the topic is African Diaspora in the Caribbean, Latin America, or Public Culture
- CRIM 4391, when the topic is The Black Male

- HIST 4315, when the topic is Civil Rights Movement
- HIST 4325, when the topic is The Middle East: From Colonial to Post-colonial Times
- HUMN 3375, when the topic is Freedom
- LITR 4338, when the topic is African American women writers

Minor in Anthropology

Students may minor in Anthropology in order to gain an overview of the discipline and to develop skills for working in diverse communities in the United States and globally.

Required courses in minor (15 hours)

12 hours of Anthropology courses (with at least 9 hours at the 3300 or 4300 level) selected in consultation with the Anthropology minor adviser to address student interests and career plans.

ANTH 3311	Contemporary Cultural Anthropology Credit Hours: 3
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Minor in Art History

Students minoring in Art History develop skills in visual literacy and analysis. Courses at the 3300 and 4300 levels should be selected in consultation with the minor adviser.

Required courses in minor (6 hours)

Students are encouraged to complete these requirements during the first 6 hours of work toward the minor. These foundational courses may be taken concurrently with electives.

ARTS 1303	World Art Survey I Credit Hours: 3
ARTS 1304	World Art Survey II Credit Hours: 3

Elective courses (9 hours)

Any Art History course at the 3300 and/or 4300 level selected with consultation with the minor adviser.

Minor in Astronomy

This minor is designed to provide students with a background in astronomy that focuses on answering the fundamental question about our origins that humans have pondered over the ages. Building on an introductory survey of astronomy, students will explore topics in planetary science such as asteroid collisions with the Earth or the science of extrasolar planets. The upper level requirements will offer students the choice of focusing on the origin and evolution of stars, our Solar System, our universe and life elsewhere in the universe.

Required courses in minor (8 hours)

ASTR 1103	Laboratory for Stars and Galaxies Credit Hours: 1
ASTR 1303	Stars and Galaxies Credit Hours: 3
ASTR 1104	Laboratory for Solar System Credit Hours: 1
ASTR 1304	Solar System Credit Hours: 3

Elective courses in the minor (9 hours)

ASTR 3311	Stellar Astrophysics Credit Hours: 3
ASTR 4311	Universal Origins Credit Hours: 3
ASTR 4312	Principles of Astrobiophysics Credit Hours: 3
ASTR 4391	Selected Topics in Space Science Credit Hours: 3
PHYS 4362	Fundamentals of Astroparticle Physics Credit Hours: 3

Minor in Behavior Analysis

The minor in Behavior Analysis is designed for students who wish to better understand the principles and processes underlying the behavior of humans and non-humans as well as for students who would like to complete the coursework required to sit for the Board Certified Assistant Behavior Analyst (BCaBA) examination. To qualify to sit for the BCaBA examination, students also must fulfill a supervised experience requirement. More information can be found at www.bacb.com.

A minor in Behavior Analysis will require a student to take 15 hours from the Psychology program. The specific courses for the Behavior Analysis Minor are listed below. Courses that satisfy the coursework requirements for the BCaBA exam include PSYC 3321, PSYC 4321, PSYC 4322, and PSYC 4323, and PSYC 4327 provides an opportunity for supervised fieldwork experience.

Students must earn a grade of "B-" or better in the following courses to be eligible to receive the minor.

Required courses in the minor (15 hours)

In place of PSYC 4316 students may complete PSYC 4327.	
PSYC 3321	Learning Credit Hours: 3
PSYC 4321	Applied Behavior Analysis I Credit Hours: 3
PSYC 4322	Applied Behavior Analysis II Credit Hours: 3
PSYC 4323	Research and Practice in Behavior Analysis Credit Hours: 3

Minor in Biology

This minor is designed to provide a solid background in biological science for students majoring in other disciplines.

Required Courses

Required courses in the minor (8 hours)

BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1307	Biology for Science Majors II Credit Hours: 3

Elective Courses

Choose courses in only one focus area.

Human Biology (9 hours)

BIOL 3173	Laboratory for Human Anatomy Credit Hours: 1
BIOL 3373	Human Anatomy Credit Hours: 3
BIOL 4241	Laboratory for Physiology Credit Hours: 2
BIOL 4345	Human Physiology Credit Hours: 3

Cellular Biology (10 hours)

BIOL 3307	Cell Biology Credit Hours: 3
BIOL 3141	Laboratory for Molecular Genetics Credit Hours: 1
BIOL 3341	Molecular Genetics Credit Hours: 3
BIOL 4351	Molecular Biology Credit Hours: 3

Environmental Biology (9 hours)

BIOL 3311	Marine Biology Credit Hours: 3
BIOL 3333	Environmental Biology Credit Hours: 3
BIOL 4311	Ecology Credit Hours: 3

Plant Biology (9 hours)

BIOL 3313	Plant Anatomy Credit Hours: 3
BIOL 4327	Plant Identification Credit Hours: 3
BIOL 4343	Plant Physiology Credit Hours: 3

Minor in Chemistry

A minor in chemistry will serve students who wish to expand their knowledge in chemistry. These skills can be used in a variety of careers from science to business or law.

Required courses in the minor (8 hours)

CHEM 2123	Laboratory for Organic Chemistry I Credit Hours: 1
CHEM 2125	Laboratory for Organic Chemistry II Credit Hours: 1
CHEM 2323	Organic Chemistry I Credit Hours: 3
CHEM 2325	Organic Chemistry II Credit Hours: 3

Elective courses in the minor (9 hours)

Choose three of the listed courses.	
CHEM 3320	Survey of Physical Chemistry Credit Hours: 3
CHEM 4321	Physical Chemistry I Credit Hours: 3

CHEM 4341	Biochemistry I Credit Hours: 3
CHEM 4367	Instrumental Analysis Credit Hours: 3
CHEM 4368	Advanced Organic Chemistry Credit Hours: 3
CHEM 4373	Quantitative Chemical Analysis Credit Hours: 3
Additional Information	
Students must complete 17 hours as indicated with at least 9 of those hours drawn from 3000 and 4000 level course offerings. All courses completed for minor credit must receive a grade of "C" or better.	

Minor in Communication

A minor in Communication prepares students for the development and critique of various messages and media.

Required course (3 hours)	
COMM 3351	Mass Media and Society Credit Hours: 3
Elective Course (12 hours)	
Students must complete 12 additional hours of COMM courses, with at least 9 of those hours drawn from 3000/4000-level COMM course offerings.	

Minor in Cybersecurity

An interdisciplinary minor in Cyber Security will cover all the critical topics in current security domain, including but not limited to: risk management, cloud computing, mobile security, application development security. This interdisciplinary minor will not only serve students who are interested in a career in information security field but also will be beneficial for students who are interested in pursuing careers in system administration, management information

systems, network administration, forensics, database development, or software development.

Required courses in the minor (15-17 hours)

Select one of either CSCI 1470 or CSCI 3303, or ITEC 2313, or ITEC 3365 or CSCI 1320. One of CSCI 1370 or CSCI 1471 or ITEC 4365; and one of CSCI 4323 or CINF 4323 or ITEC 4366.

ITEC 3388	Cyber Security I Credit Hours: 3
ITEC 4383	Cyber Security II Credit Hours: 3

Additional Information

All courses for minor credit must be completed with a grade of "C" or above.

Minor in Early Childhood Education

The 15-hour Minor in Early Childhood Education (ECE) in the College of Education will provide students the fundamental theories, concepts, and practices in working with young children. This minor will provide students a rich learning experience regarding early childhood issues including literacy development, parent engagement, and curriculum. Courses may be especially attractive to majors in psychology and sociology who may want to work with CPS, Child Care Licensing or other agencies related to children and families. Choose from any of the following courses for completing the minor. Only students simultaneously pursuing the Early Childhood Leadership Certificate with this Minor may enroll in ECED 4327, ECED 4329, MGMT 3301, and MGMT 3313.

Required courses in minor (15 hours)

ECED 4303	Child Guidance and Classroom Management for Young Children Credit Hours: 3
ECED 4305	Literacy Development Birth-Age 5 Credit Hours: 3
ECED 4307	Mathematics and Science in Early Childhood Education Credit Hours: 3
ECED 4308	Creativity in Early Childhood Credit Hours: 3
ECED 4309	Advocacy and Parent Engagement Credit Hours: 3
ECED 4320	Play in Early Childhood Curriculum Credit Hours: 3
ECED 4321	Advanced Topics: Infants and Toddlers Credit Hours: 3
ECED 4322	Cultural Awareness for Young Children Credit Hours: 3
ECED 4323	Advanced Topics: Preschool Curriculum Credit Hours: 3
ECED 4324	Early Childhood Leadership, Program Development, and Management Credit Hours: 3
ECED 4325	Early Childhood Program Development & Management I - Leadership Strategies and Staff Development Credit Hours: 3
ECED 4327	Early Childhood Program Development & Management II - Managing Center Operations and Finance Credit Hours: 3
ECED 4329	Early Childhood Program Development & Management III - Implementing and Evaluating the Program Credit Hours: 3
MGMT 3301	Management Theory and Practice Credit Hours: 3
MGMT 3313	Organizational Communication Credit Hours: 3

Minor in Economics

This minor is designed to provide students with the tools to apply an economic lens when analyzing data and problems. Students will explore the collection and use of economic data, the design of economic policy and institutions, and in general, optimal decision-making with scarce resources. Students will be required to complete ECON 2301 and ECON 2302 plus nine hours of electives. Of the nine hours, a minimum of three must be macroeconomic-based and three must be microeconomic-based.

Required courses in Minor (6 hours)

ECON 2301	Principles of Macroeconomics Credit Hours: 3
ECON 2302	Principles of Microeconomics Credit Hours: 3

Macroeconomics-based Electives (ECON 2301 required –must take at least one course)

ECON 3311	Money and Banking Credit Hours: 3
ECON 3321	Development Economics Credit Hours: 3

Microeconomics- based Electives (ECON 2302 required –must take at least one course)

HADM 3333	Healthcare Economics Credit Hours: 3
ECON 3361	Industrial Organization Credit Hours: 3
ECON 3381	Energy and Environmental Economics
ECON 3391	Sports Economics Credit Hours: 3
ECON 3371	Public Finance Credit Hours: 3

Students must include the minor in the degree plan no later than the achievement

of senior status. Minors must be completed as part of a planned degree program prior to graduation. Substitutions in a minor can be initiated by either the major- or minor-granting department, but must be approved by both departments. A minor is displayed on the transcript after graduation, but is not displayed on the diploma.

Minors are not required of any student and must not extend beyond the total number of hours for program completion (120 hours). For each minor, students must complete at least 15 hours with at least nine of these hours drawn from upper-level (33XX and/or 43XX) course offerings. All courses for minor credit must be completed with a grade of "C" or above.

Minor in Environmental Science

The Environmental Science minor is designed to provide a solid background in environmental science for students majoring in other disciplines.

Required courses in the minor (9 hours)

ENSC 3331	Environmental Biology Credit Hours: 3
ENSC 3332	Environmental Chemistry Credit Hours: 3
ENSC 3333	Environmental Geology Credit Hours: 3

Elective courses in the minor (9 hours)

BIOL 3311	Marine Biology Credit Hours: 3
BIOL 4305	Ecology of the Amazon Credit Hours: 3

ENSC 3301	Energy and the Environment Credit Hours: 3
ENSC 3307	Geographic Information Systems Credit Hours: 3
ENSC 4325	Environmental Toxicology Credit Hours: 3
ENSC 4331	Introduction to Environmental Engineering Credit Hours: 3
ENSC 4332	Advanced Environmental Science Credit Hours: 3
ENSC 4333	Introduction to Global Climate Change Credit Hours: 3
ENSC 4351	Hydrogeology Credit Hours: 3
ENSC 4352	Water Chemistry and Water Pollution Credit Hours: 3
ENSC 4355	Environmental Sampling and Monitoring Credit Hours: 3
ENSC 4356	Soil and Groundwater Remediation Credit Hours: 3

Minor in Exercise Science

A minor in Exercise Science will require a student to take 15 hours from the Fitness and Human Performance program as indicated below.

Required courses in minor (15 hours)

Students will choose from:HLTH 4307 or HLTH 4308 HLTH 4302 or HLTH 4305	
HLTH 3303	Nutrition and Weight Management Credit Hours: 3
HLTH 3304	Principles of Physical Fitness Credit Hours: 3
HLTH 4301	Physiology of Exercise Credit Hours: 3
HLTH 4302	Biomechanics Credit Hours: 3

HLTH 4305	Seminar in Sports Medicine Credit Hours: 3
HLTH 4307	Peak Performance Credit Hours: 3
HLTH 4308	Resistive Exercise: Theory and Practice Credit Hours: 3

Minor in GIS/Geospatial Technologies

Geographic Information Science (GIS) and Geospatial Technologies are integral to Environmental Science and many other fields. Various scientific analyses depend heavily on GIS to analyze spatial interrelationships of processes and variables in order to gain better understanding of these processes and to support decision making. This minor provides hand-on training and prepares individuals for careers in technical fields such as environmental science, biology, natural resource management, geology/soil science, oceanography, limnology, oil and gas, hydrology and flood management, meteorology, climatology, geography, urban planning, hazardous materials response, and environmental health. Students will gain knowledge and skills in GIS and related geospatial technologies, including tools of Global Positioning Systems (single and differential), remote sensing (incorporating aerial photography, satellite data, and small unmanned aerial systems (sUAS)) and their analytics.

Required courses in the minor (18 hours)

ENSC 3307	Geographic Information Systems Credit Hours: 3
ENSC 4335	Applied GIS

	Credit Hours: 3
ITEC 3312	Scripting II Credit Hours: 3
ITEC 2313	Scripting I Credit Hours: 3
ITEC 2351	Web Fundamentals Credit Hours: 3
ENSC 4336	Web GIS Credit Hours: 3
ENSC 4337	Geospatial Technologies Credit Hours: 3
Additional Information	
Select ITEC 2313 or ITEC 3312	

Minor in Geographic Information Systems

A minor in Geographic Information Systems (GIS) will serve students who wish to add interdisciplinary perspectives and skills to their plans of study. The GIS minor will produce students who are equipped to function as GIS specialists in industry, government, and academia. The minor will provide students with an interdisciplinary educational opportunity to enhance their individual disciplines through the study and application of GIS theory, methods, and technologies. It will also endow students with the geographical concepts and practical skills necessary to enter the job market as GIS specialists. Finally, the minor will develop individuals with a board grasp of GIS technology who are not only technologically competent but also solution-oriented.

Required courses in minor (15 hours)

GEOG 4312	Human Geography Credit Hours: 3
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GEOG 4321	Fundamentals of Geographic Information Systems Credit Hours: 3
GEOG 4323	Geographic Information Systems Design and Implementation Credit Hours: 3
CINF 3321	Information Systems Theory and Practice Credit Hours: 3

Minor in Geography

A minor in Geography will serve students who wish to add an interdisciplinary perspective to their plans of study. The minor course of study enhances students' understanding of: how the processes of human and physical systems have arranged and sometimes changed the surface of the Earth, the spatial organization of society, and spatial distribution at all scales—local and worldwide—in order to understand the complex connectivity of people and places. Earning a minor in Geography also enables students to make sensible judgments about issues involving relationships between the physical environment and society. Finally, the minor in Geography is designed to foster a greater order to become a better global citizen.

Students must complete 15 hours as indicated. All courses for minor credit must be completed with a grade of "C" or better.

Required courses in minor (12 hours)

GEOG 1301	Modern Physical Geography Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4312	Human Geography Credit Hours: 3
GEOG 4321	Fundamentals of Geographic Information Systems

	Credit Hours: 3
Elective courses (3 hours)	
GEOG 4300	Geography of North America Credit Hours: 3
GEOG 4301	Urban Geography Credit Hours: 3
GEOG 4302	Geography of Latin America Credit Hours: 3
GEOG 4303	Geography of Texas Credit Hours: 3
GEOG 4311	Historical Geography Credit Hours: 3
GEOG 4323	Geographic Information Systems Design and Implementation Credit Hours: 3

Minor in Geology

A minor in geology will serve students who wish to expand the application of their major with a geology background. These skills will complement a variety of careers, including careers in science, business, law, political science and environmental management. Building on introductory courses that include a survey of geological processes and interpretation of the earth's past, students are encouraged to choose upper-level courses that will complement their career goals. The upper level requirements will offer students the choice of focusing on topics such as structural geology, petroleum geology, geochemistry and natural disasters. All courses completed for minor credit must receive a grade of "C" or better.

Required courses in the minor (8 hours)

GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1103	Laboratory for Physical Geology Credit Hours: 1

GEOL 1304	Historical Geology Credit Hours: 3
GEOL 1104	Laboratory for Historical Geology Credit Hours: 1

Elective courses in the minor (9 hours)

Choose from courses listed.

ENSC 3307	Geographic Information Systems Credit Hours: 3
ENSC 3333	Environmental Geology Credit Hours: 3
ENSC 4323	Soils in the Environment Credit Hours: 3
ENSC 4335	Applied GIS Credit Hours: 3
ENSC 4351	Hydrogeology Credit Hours: 3
GEOL 3317	Mineralogy and Petrology Credit Hours: 3
GEOL 3117	Laboratory for Mineralogy and Petrology Credit Hours: 1
GEOL 3240	Geological Field Methods Credit Hours: 2
GEOL 4145	Lab for Structural Geology Credit Hours: 1
GEOL 4317	Advanced Mineralogy and Petrology Credit Hours: 3
GEOL 4324	Geomorphology Credit Hours: 3
GEOL 4325	Sedimentation and Stratigraphy Credit Hours: 3
GEOL 4327	Natural Disasters Credit Hours: 3
GEOL 4345	Structural Geology Credit Hours: 3
GEOL 4375	Petroleum Geology Credit Hours: 3
GEOL 4391	Selected Topics in Geology Credit Hours: 3

Minor in Graphic Design

Graphic Design is often considered the career-oriented area of the visual arts. A minor in Graphic Design from University of Houston-Clear Lake gives any major a visual edge, giving you the ability to bring visual graphics to any career field.

Required Courses

ARTS 2371	Digital Photography Credit Hours: 3
ARTS 3360	Graphic Design Credit Hours: 3
Choose 3 of the following:	
ARTS 4348	Information Design Credit Hours: 3
ARTS 4358	History and Theory of Graphic Design Credit Hours: 3
ARTS 4363	Advertising Design Credit Hours: 3
ARTS 4369	Digital Illustration Credit Hours: 3
COMM 4354	Video Production I Credit Hours: 3
COMM 4358	Publication Design Credit Hours: 3

Minor in Health Promotion

A minor in Health Promotion will require a student to take 15 hours from the Fitness and Human Performance program.

Required courses in minor (15 hours)

HLTH 3303	Nutrition and Weight Management Credit Hours: 3
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HLTH 3304	Principles of Physical Fitness Credit Hours: 3
HLTH 3315	Health Promotion Programs Credit Hours: 3
HLTH 3318	Introduction to Community Health Credit Hours: 3
HLTH 3320	Health Inequalities Credit Hours: 3

Minor in History

A minor in History will serve students interested in understanding the human experience in the past. Those preparing for careers in law, teaching, journalism, business, social work, or any field involving information management will find the History minor especially beneficial. In all, students must complete 15 hours in History. At least 12 hours must be drawn from 3300- and/or 4300-level course offerings. Also, at least 12 hours must be completed in residence.

Note: HIST 1301 and HIST 1302 do not count towards the minor. All courses for minor credit must be completed with a grade of "C" or better.

Required courses in minor (15 hours)

Select 3 hours from HIST 2321 or HIST 2322. Choose 12 hours from 3300- and/or 4300-level course offerings.

HIST 2321	World Civilization I Credit Hours: 3
HIST 2322	World Civilization II Credit Hours: 3

Minor in Humanities

A minor in Humanities develops students' critical thinking skills through careful analyses of works of literature, philosophy, art and film.

Required courses in minor (15 hours)

Requirements include the courses listed below and 3 HUMN courses at the 3300 or 4300 level. Students are strongly encouraged to take HUMN 4375 as one of their elective classes.

HUMN 1301	Humanities Credit Hours: 3
HUMN 3375	Ideas in Transition Credit Hours: 3

Additional Information

HUMN 3375 is a topics class and may be repeated for credit toward the minor when the topic varies.

Minor in Instructional Practices (15 hours)

The 15-hour minor in Instructional Practices in the College of Education will provide students foundational knowledge and skills in pedagogy and awareness of public school activities. This minor may be of interest to students who have existing strengths in content areas and want to develop and extend their interests and potential talents in the teaching profession. A Minor in Instructional Practices can be obtained with the successful completion of five of the seven undergraduate education courses listed for this minor, totaling 15 semester credit hours; where TCED 1301 is required and the other four courses are self-selected by the students but at least three courses, that is nine semester credit hours, must be taken at 3000/4000 level. There are no prerequisites that can be chosen for courses in the minor in Instructional Practices. The following courses support an undergraduate candidate's interest in potentially pursuing a teaching career in the future. Specifically, this would align with a candidate pursuing a humanities degree with a focus on social sciences, history, or literature, as well as

candidates in the sciences or mathematics fields of study. Their content area expertise makes them strong teacher candidates if they chose to pursue this career in the future.

Required courses in the minor (15 hours)

In addition to TCED 1301, complete 4 of the remaining courses listed. At least 3 of the courses selected must be at the 3000/4000 level.

TCED 1301	Exploring Teaching as a Profession Credit Hours: 3
TCED 1306	Relational Aspects of Learning Credit Hours: 3
TCED 2302	Questioning Strategies to Promote Learning Credit Hours: 3
TCED 3302	Instructional Practices in Education Credit Hours: 3
TCED 3304	Social Justice and Critical Issues in Education Credit Hours: 3
TCED 4302	Inquiry Processes and Problem Solving Skills in Education Credit Hours: 3
TCED 4308	Assessments and Testing in Schools Credit Hours: 3

Minor in Instructional Technology (INST) (15 hours)

The 15-hour minor in Instructional Technology (INST) in the College of Education will prepare students to design technology-rich learning environments and become comfortable with adopting emerging technologies to facilitate learning. The application of instructional technology in business and education sectors will be examined as students gain skills in the design and development of technology-based applications. Students would find career

paths in areas of support for web-based and digital learning environments as well as areas of teaching and training.

Required courses in the minor (15 hours)

INST 3313	Survey of Instructional Technologies Credit Hours: 3
INST 4355	eLearning Credit Hours: 3
INST 4357	Multimedia for Instruction Credit Hours: 3
INST 4365	Web Development Credit Hours: 3
INST 4391	Selected Topics in Instructional Technology Credit Hours: 3

Minor in Latinx and Latin American Studies

A minor in Latinx and Latin American Studies provides an interdisciplinary education by offering courses in the humanities and human sciences. The objective of the minor is to promote student understanding of the Latinx and Latin American experience. No prerequisites are required. All students pursuing the minor in Latinx and Latin American Studies must complete 15 semester credit hours. At least 9 of the 15 hours must be at the 3300 level or above. At least 12 of the 15 hours must be taken in residence. A minimum 2.000 grade point average for all courses applied to the minor is required.

Elective courses (12 hours)

Select five courses from the list.

ANTH 4333	Peoples of Mexico and Central America Credit Hours: 3
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ARTS 3355	Latin American Art of the Twentieth Century Credit Hours: 3
ARTS 3356	Mexican Art, 1500-Present Credit Hours: 3
GEOG 4302	Geography of Latin America Credit Hours: 3
HIST 2301	Texas History Credit Hours: 3
HIST 3317	Introduction to Latin American History Credit Hours: 3
HIST 3319	Colonial Latin America Credit Hours: 3
HIST 3321	Modern Latin America Credit Hours: 3
HIST 3323	History of Mexico Credit Hours: 3
HIST 4308	The Mexico Borderlands Credit Hours: 3
HIST 4309	Studies in Latin American History Credit Hours: 3
HIST 4310	Latin America and the United States Credit Hours: 3
HUMN 3355	Latin American Art of the Twentieth Century Credit Hours: 3
HUMN 3356	Mexican Art, 1500-Present Credit Hours: 3
LLAS 2301	Topics in Latinx and Latin American Studies, Humanities Credit Hours: 3
LLAS 2302	Topics in Latinx and Latin American Studies, Human Sciences Credit Hours: 3
LLAS 4309	Topics in Latinx and Latin American Studies Credit Hours: 3
SOCI 4363	American Immigration and the Immigrant Experience Credit Hours: 3
SPAN 1311	Beginning Spanish I Credit Hours: 3
SPAN 1312	Beginning Spanish II Credit Hours: 3
SPAN 2311	Intermediate Spanish I Credit Hours: 3

SPAN 2312	Intermediate Spanish II Credit Hours: 3
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Minor in Literature

A minor in Literature serves students seeking to improve their critical thinking skills and knowledge of literary texts, genres, and traditions while pursuing careers in teaching, writing, and communication or continuing to graduate studies. For a Literature minor, students must complete 15 hours or five courses in LITR. All courses for minor credit must be completed with a grade of "C" or better. At least one course (3 hours) must be 2300-level, but no more than two courses may be 2300-level. At least one course must be at the 4300-level. Four of the five courses must satisfy one of the area requirements below. The fifth course may be from the area requirements or from the electives category.

Lower-Level LITR courses

Choose at least ONE but no more than TWO of the following courses.

LITR 2321	British Literature Credit Hours: 3
LITR 2326	American Literature Credit Hours: 3
LITR 2341	Literature and Experience Credit Hours: 3

American Literature

Choose ONE of the following courses.

LITR 4328	The American Renaissance Credit Hours: 3
LITR 4330	American Realism and Naturalism Credit Hours: 3
LITR 4334	The American Novel Credit Hours: 3
LITR 4335	American Modernism Credit Hours: 3

LITR 4336	Contemporary American Literature Credit Hours: 3
British Literature	
Choose ONE of the following courses.	
LITR 4318	Restoration and 18th-Century British Literature Credit Hours: 3
LITR 4320	The Romantic Movement in British Literature Credit Hours: 3
LITR 4321	Jane Austen Credit Hours: 3
LITR 4322	Victorian Literature Credit Hours: 3
LITR 4324	Rise and Development of the British Novel Credit Hours: 3
Pre-1700 British Literature	
Choose ONE of the following courses.	
LITR 3361	Shakespeare Credit Hours: 3
LITR 4312	Chaucer Credit Hours: 3
LITR 4316	16th- and 17th-Century British Literature Credit Hours: 3
World or Multicultural Literature	
Choose ONE of the following courses listed.	
LITR 3334	Mythology Credit Hours: 3
LITR 4326	Early American Literature Credit Hours: 3
LITR 4338	American Minority Literature Credit Hours: 3
LITR 4340	American Immigrant Literature Credit Hours: 3
LITR 4342	Modern and Contemporary Drama Credit Hours: 3
LITR 4344	The Modern Novel Credit Hours: 3
LITR 4345	Contemporary Novel Credit Hours: 3
LITR 4346	Medieval Literature

	Credit Hours: 3
LITR 4350	Masterpieces of 19th-Century European Literature Credit Hours: 3
LITR 4352	Masterpieces of 20th-Century European Literature Credit Hours: 3
Elective courses in the minor (0-3 hours)	
LITR 3301	Literary Studies: Genres and Critical Perspectives Credit Hours: 3
LITR 3371	Creative Writing Credit Hours: 3
LITR 4301	Literary Theory Credit Hours: 3
LITR 4304	Workshop in Poetics Credit Hours: 3
LITR 4342	Modern and Contemporary Drama Credit Hours: 3
LITR 4344	The Modern Novel Credit Hours: 3
LITR 4345	Contemporary Novel Credit Hours: 3
LITR 4350	Masterpieces of 19th-Century European Literature Credit Hours: 3
LITR 4352	Masterpieces of 20th-Century European Literature Credit Hours: 3
LITR 4360	Film as Literature Credit Hours: 3
LITR 4362	The Literature of Adolescence Credit Hours: 3
LITR 4364	Women in Literature Credit Hours: 3
LITR 4366	Literature and Religion Credit Hours: 3
LITR 4368	Literature of the Future Credit Hours: 3
LITR 4370	Tragedy Credit Hours: 3

Minor in Marketing

This minor is designed to provide students with the consumer-oriented way of thinking and an understanding of how the marketing function contributes to an organization's long-term success. Students will learn critical marketing knowledge, skills, and abilities by conducting market research to identify segments of the market to target; developing and pricing products or service offerings; communicating about product or service offerings through advertising, sales, sales promotion and public relations; and getting products or services into the hands of customers.

Required Courses in Minor (6 hours)

MKTG 3301	Principles of Marketing Credit Hours: 3
MKTG 3343	Consumer Behavior Credit Hours: 3

Marketing Electives (9 hours required)

MKTG 3313	Marketing Channels and Distribution Credit Hours: 3
MKTG 3314	Logistics Strategy Credit Hours: 3
MKTG 3331	Integrated Marketing Communications
MKTG 3332	Professional Selling Credit Hours: 3
MKTG 3344	Internet Marketing Credit Hours: 3
MKTG 3346	Healthcare Marketing Credit Hours: 3
MKTG 3347	Customer Relationship Management Credit Hours: 3
MKTG 3348	Retail Management Credit Hours: 3
MKTG 3351	Marketing Research Credit Hours: 3
MKTG 3360	Social Media Marketing

	Credit Hours: 3
MKTG 4189	Independent Studies in Marketing Credit Hours: 3
MKTG 4311	Sales Management Credit Hours: 3
MKTG 4332	Services Marketing Credit Hours: 0
MKTG 4333	Marketing for Entrepreneurs Credit Hours: 3
MKTG 4334	Marketing Strategy
MKTG 4335	Brands and Brand Management Credit Hours: 3
MKTG 4351	International Marketing Credit Hours: 3
MKTG 4352	Seminar in International Marketing Credit Hours: 3
MKTG 4379	Internship in Marketing Credit Hours: 3
MKTG 4389	Independent Studies in Marketing Credit Hours: 3
MKTG 4391	Selected Topics in Marketing Credit Hours: 3

Students must include the minor in the degree plan no later than the achievement of senior status. Minors must be completed as part of a planned degree program prior to graduation. Substitutions in a minor can be initiated by either the major- or minor-granting department, but must be approved by both departments. A minor is displayed on the transcript after graduation, but is not displayed on the diploma.

Minors are not required of any student. For each minor, students must complete at least 15 hours with at least nine of these hours drawn from upper-level (33XX and/or 43XX) course offerings. All courses for minor credit must be completed with a grade of C or above.

Minor in Mathematics

A minor in Mathematics will serve students who wish to follow a related interest or to expand their job prospects.

Required courses in the minor (6 hours)

Students may choose either MATH 2318 or MATH 2320 for the remaining required hours.

MATH 2315	Calculus III Credit Hours: 3
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Elective courses in the minor (9 hours)

MATH 3331	Advanced Calculus Credit Hours: 3
MATH 4363	Functions of a Complex Variable Credit Hours: 3
MATH 3312	Number Theory Credit Hours: 3
MATH 4315	Numerical Analysis and its Applications Credit Hours: 3
MATH 4325	Nonlinear Dynamics and Applications Credit Hours: 3
MATH 4344	Introduction to Probability Credit Hours: 3
MATH 4345	Introduction to Statistics Credit Hours: 3
MATH 4348	Introduction to Financial Math for Exam FM Credit Hours: 3

Additional Information

No math education courses or independent study courses are allowed in order to fulfill minor requirements.

Minor in Middle Eastern Studies

The minor in Middle Eastern Studies at UHCL is highly interdisciplinary, drawing on

coursework from the social sciences and the humanities, focusing on the Middle East, North Africa and South Asia. It is designed to give students an introduction to these regions in global and comparative perspectives. The minor provides opportunities for studying topics such as regional geographies, history, politics, languages, religion, art and architecture, and ethnic and socio-cultural diversity, by emphasizing such topics as religious traditions and communities, interfaith studies, Islamic studies, the pre-Islamic period, the Byzantine period, the emergence of Abrahamic traditions and Islam, as well as the contemporary relationship between the Middle East and the west. The minor focuses also on diasporic flows of peoples and ideas, social movements, migrations, and peace and conflict studies.

Students must complete 15 hours from courses listed below. All courses for minor credit must be completed with a grade of "C" or better. Students may also take independent studies in self-directed areas of specialization with prior approval from their major advisers and the Middle Eastern minor adviser.

Required courses in minor (15 hours)

Students must take coursework in at least two different disciplines. Please see additional notes regarding required course topics.

ANTH 3357	Topics in African Studies Credit Hours: 3
ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
ANTH 4303	Islam in America Credit Hours: 3
ANTH 4330	Cultural Study Abroad Credit Hours: 3
ANTH 4343	Anthropological Perspectives on World Religion Credit Hours: 3

ARTS 4312	Art of Ancient Iraq and the Near East Credit Hours: 3
HIST 2321	World Civilization I Credit Hours: 3
HIST 3349	Modern Middle East Credit Hours: 3
HIST 4313	Studies in U.S. History Credit Hours: 3
HIST 4325	Studies in Middle Eastern History Credit Hours: 3
HIST 4328	Palestinian-Israeli Conflict Credit Hours: 3
HUMN 4326	Studies in Film Credit Hours: 3
SOCI 4329	Egypt in Transition Credit Hours: 3
SOCI 4363	American Immigration and the Immigrant Experience Credit Hours: 3
WGST 4312	Women of Color Credit Hours: 3

Additional Information

- ANTH 3358 when the topic is Islam in Africa, Gender, Media, and Diplomacy in the Arab World, or Peoples and Cultures of the Middle East
- ARTS 4312 may be substituted with HUMN 4312
- HIST 4313 when the topic is Islam, The Middle East and the USA, or The Iraq War in Film
- HIST 4325 when the topic is The Middle East from Colonialism to Post-Colonialism, or The Reel Middle East
- HUMN 4326 when the topic is the Iraq War in Film
- WGST 4312 when the topic is Gender, Media, and Diplomacy in the Arab World, Peoples and Cultures of the Middle East, Islam in Africa, or Islam in America

General Minor Requirements

- Students must complete at least a minimum of 15 hours in the minor field.
 - At least 9 must be at the upper-level (3000- and 4000-level classes)
 - At least 6 of the upper-level credits must be taken at UHCL
- Students must earn a 2.00 minimum cumulative grade point average on courses at the University of Houston-Clear Lake

Some minors are associated with disciplinary programs, and some are interdisciplinary. Although the minor will not appear on your diploma, it will be noted on your transcript, which would be seen by future employers and others who review your academic record. Keep in mind that because minors will require no fewer than 15 semester hours of course work, excluding prerequisite courses, you must have 15 hours of electives available in your major degree plan.

Course substitutions to the minor degree plan may be made with the approval of both the major and minor advisers. Also, adding a minor to your program of study may not result in graduation requirements that exceed the approval length of your original degree plan and that the minor must be completed prior to graduation, not afterward.

For more information, see the general and program requirements in the undergraduate catalog. For questions and academic advice, please contact Dr. Maria Curtis, Associate Professor of Anthropology and Cross-Cultural and Global Studies, at curtis@uhcl.edu, or Dr. Cengiz Sisman, Associate Professor of History, at sisman@uhcl.edu.

Minor in Museum Studies

Students minoring in Museum Studies will develop a theory- and practice-based understanding of the collection, curation and exhibition of art and material culture. The student will develop knowledge in areas including museum education, curation, collecting, heritage studies, and community

perspectives on public culture through coursework and through direct experience in exhibition settings in and around Houston. The minor will encourage an interdisciplinary but complementary selection of courses, aimed at providing the student a broad base of experience to serve them in a variety of public cultural institutions.

All students pursuing the minor in Museum Studies must complete 15 semester credit hours as follows.

Required Foundational Courses (6 hours)

For ARTS 1303, the following may be substituted: ARTS 1304 For ARTS 4364, the following may be substituted: ARTS 4384

ARTS 1303	World Art Survey I Credit Hours: 3
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ARTS 4364	Museum Studies Credit Hours: 3
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Anthropology Electives (3-6 hours)

Choose at least one Anthropology elective.

ANTH 3355	Topics in Asian Studies Credit Hours: 3
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ANTH 3358	Topics in Middle Eastern Societies Credit Hours: 3
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ANTH 4301	Studies in Cultural Diversity Credit Hours: 3
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ANTH 4334	Native Americans Credit Hours: 3
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ANTH 4352	World Prehistory and Archaeology Credit Hours: 3
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ANTH 4364	Visual Anthropology Credit Hours: 3
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Humanities or Art History Electives (3-6)

Choose at least one Humanities or Art History elective. For ARTS 4389, the following may be substituted: ANTH 4389 (when students volunteers/work in a museum or preapproved site that is appropriate for museum studies with instructor approval). For HUMN 3350, the following may be substituted: ARTS 3355 For HUMN 3356, the following may be substituted: ARTS 3356 For HUMN 4312, the following may be substituted: ARTS 4312 For HUMN 4315, the following may

be substituted: ARTS 4315 For HUMN 4322, the following may be substituted: ARTS 4322 For HUMN 4366, the following may be substituted: ARTS 4366

ARTS 4389	Independent Study in Art Credit Hours: 3
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HUMN 3350	Art 1900-1950 Credit Hours: 3
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HUMN 3355	Latin American Art of the Twentieth Century Credit Hours: 3
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HUMN 3356	Mexican Art, 1500-Present Credit Hours: 3
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HUMN 3357	History and Theory of Photography Credit Hours: 3
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HUMN 4312	Art of Ancient Iraq and the Near East Credit Hours: 3
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HUMN 4315	Art of the Ancient Greek World Credit Hours: 3
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HUMN 4322	Roman Art Credit Hours: 3
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HUMN 4366	Propaganda and Persuasive Images Credit Hours: 3
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Minor in Philosophy

The minor in philosophy provides an introduction to the topics of philosophy and training in the basic skills of philosophical thinking.

Required course in minor (3 hours)

PHIL 1301	Introduction to Philosophy Credit Hours: 3
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Elective courses (12 hours)

Choose 4 PHIL courses at the 3300 or 4300 level

Minor in Physics

A minor in Physics will serve students who wish to expand their problem solving ability. These skills can be used in a variety of careers from science to business or law.

Required courses in the minor (12 hours)

PHYS 2125	Laboratory for University Physics I Credit Hours: 1
PHYS 2126	Laboratory for University Physics II Credit Hours: 1
PHYS 2325	University Physics I Credit Hours: 3
PHYS 2326	University Physics II Credit Hours: 3
PHYS 3103	Laboratory for Modern Physics Credit Hours: 1
PHYS 3303	Modern Physics Credit Hours: 3

Elective courses in the minor (6 hours)

Choose any 2 courses listed.	
PHYS 3321	Intermediate Mechanics Credit Hours: 3
PHYS 3331	Intermediate Electromagnetism Credit Hours: 3
PHYS 3342	Quantum Theory I Credit Hours: 3
PHYS 3351	Thermodynamics & Statistical Mechanics Credit Hours: 3

Minor in Professional Writing

A minor in Professional Writing will serve students who wish to improve their oral and written communication skills and develop an understanding of the writing genres that are appropriate to various disciplines and professional occupations. In all, students must complete 15 hours as indicated drawn from 3300- and/or 4300-level course offerings.

All courses for minor credit must be completed with a grade of "C" or above.

Elective courses in the minor (15 hours)

Prerequisites for all courses in the minor include the completion of WRIT 1301 and WRIT 1302 with a grade of "C-" or better and junior-level standing.

WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3305	Writing for the Humanities Credit Hours: 3
WRIT 3306	Writing for the Social Sciences Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
WRIT 3312	Written Communications in Business Credit Hours: 3
WRIT 3315	Advanced Technical Writing Credit Hours: 3
WRIT 4310	Writing for the Public: Developing Non-Profit Communication Strategies Credit Hours: 3
WRIT 4311	Grant and Proposal Writing Credit Hours: 3
WRIT 4312	The Rhetoric of Popular Culture Credit Hours: 3
WRIT 4313	Graffiti, Texting, and Networked Politics: The Sociolinguistics of Writing Credit Hours: 3
WRIT 4314	Collaborative Writing Pedagogy Credit Hours: 3
WRIT 4391	Selected Topics in Writing Credit Hours: 3

Minor in Public Service Leadership

A minor in Public Service Leadership will serve HSH majors who wish to have careers in leadership and/or management in the public sector. Students who select the PSL minor must satisfy the general university requirements for a minor as well as the specific minor requirements below. In all, students must complete 15 hours as indicated below with at least 9 of those hours

drawn from 3300- and/or 4300-level course offerings.

All courses for minor credit must be completed with a grade of "C" or better.

Required courses in the minor (6 hours)	
PSLD 4343	Public Service Management Credit Hours: 3
PSLD 4344	Public Service Leadership Credit Hours: 3
Elective courses in the minor (9 hours)	
PSLD 4345	Strategic Planning Credit Hours: 3
PSLD 4347	Managerial Issues in Diversity Credit Hours: 3
PSLD 4348	Crisis and Emergency Management Credit Hours: 3
PSLD 4349	Ethics and Law Credit Hours: 3

Minor in Social Work

Students may minor in Social Work in order to gain an overview of the discipline and to develop knowledge and skills for working with diverse populations. Completion of coursework in the minor will emphasize social justice, an introduction to professional ethics, and practical interviewing skills needed within entry level human service agencies. In all, students must complete 15 hours as indicated below. All courses for minor credit must be completed with a grade of "C" or better.

Of special note: SWRK 4318 is offered each fall and must be taken after completing all other coursework for the minor.

Required courses in the minor (15 hours)	
SWRK 3301	Introduction to Social Work

	Credit Hours: 3
SWRK 3304	Issues and Ethics in Social Work Credit Hours: 3
SWRK 3314	Diversity and Human Behavior in the Social Environment Credit Hours: 3
SWRK 3324	Oppression, Diversity, and Social Justice Credit Hours: 3
SWRK 4318	Social Work Practice I Credit Hours: 3

Students interested in completing a Minor in Social Work should contact program faculty to discuss course sequencing and planning.

Program Director - Dr. Heather Kanenberg: kanenbergH@uhcl.edu; and Field Director - Dr. Roberta Leal: lealR@uhcl.edu.

Minor in Sociology

Students may earn a minor in Sociology by taking 15 hours of structured SOCI classes. This may be accomplished in combination with a major in one of the other social sciences and/or by using electives to accumulate the 15 hours.

Required courses in the minor (6 hours)	
Complete SOCI 4322 and one of the remaining courses listed.	
SOCI 1301	Introduction to Sociology Credit Hours: 3
SOCI 1306	Social Problems Credit Hours: 3
SOCI 4312	Social Structure: Class, Power, and Status Credit Hours: 3
SOCI 4322	Theories of Society Credit Hours: 3
Elective courses (9 hours)	
Select 3 SOCI courses at the 3300- and/or 4300-level.	

Minor in Software Engineering

A minor in Software Engineering will cover the fundamental topics in Software Engineering, Programming with C and Java, modular design, Object Oriented programming, strings, lists, data structures, as well as Software Processes and Software Project Management, the Software Life Cycle Development phases, and Testing. This minor will serve students who are interested in a career software engineering or software development or whose interest may lie in graduate studies in Software Engineering. Students must complete 18 hours as indicated below. All courses for minor credit must be completed with a grade of "C" or above.

Students may be eligible to fulfill CSCI 1320 and CSCI 1370 requirements with other programming courses covering C and Java and should speak to CSE Academic Advising for approval.

Requirement courses (18 hours)	
CSCI 1320	C Programming Credit Hours: 3
CSCI 1370	Software Development with Java Credit Hours: 3
CSCI 2315	Data Structures Credit Hours: 3
SWEN 3350	Data Structures for Software Engineering Credit Hours: 3
SWEN 4320	Introduction to Software Process and Project Management Credit Hours: 3
SWEN 4342	Software Engineering Credit Hours: 3
SWEN 4346	Software Testing Credit Hours: 3

Additional Information

Students can take CSCI 2315 or SWEN 3350.

Minor in Special Education (SPED) 15 hours

The 15-hour minor in Special Education (SPED) in the College of Education can provide undergraduates with foundational knowledge about special needs and disabilities as well as teaching theories and practices in addressing the educational needs of learners. This minor may be of special interest to psychology and social work students who may wish to work with children who have special learning needs, from early childhood to adulthood, and their families.

Required courses in the minor (15 hours)

SPED 2301 and SPED 4300 are to be taken in sequence, that is first and second, since they serve as prerequisites for the other 3 SPED courses.

SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
SPED 4311	Assessment in Special Education Credit Hours: 3
SPED 4321	Implementing Positive Behavior Supports Credit Hours: 3
SPED 4332	Early Childhood Special Education Credit Hours: 3

Minor in Statistics

The STAT minor is designed to provide a solid background in statistics for students majoring in other disciplines. In all, students must complete 15 hours listed below. All courses completed for minor credit must receive a grade of "C" or

above. All prerequisites through MATH 2414 must be met by all applicants.

Requirements (15 hours)

Required courses in the minor.	
STAT 3308	Computational Statistics Credit Hours: 3
STAT 4315	Applied Statistical Methods Credit Hours: 3
STAT 4333	Statistical Computing Credit Hours: 3
STAT 4344	Introduction to Probability Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3
Additional Information STAT 3308 or STAT 3334 or an approved elective may be taken.	

Minor in Studio Arts

Students must complete five courses in studio art with a "C- " or better for a minimum of 15 credit hours.

Required course in minor (3 hours)	
ARTS 1316	Drawing Foundations Credit Hours: 3
Choose four additional ARTS courses from the following list.	
Note: 9 hours must be at 3300/4300 level.	
ARTS 2316	Painting Credit Hours: 3
ARTS 3310	Sculpture Credit Hours: 3
ARTS 3320	Ceramics Credit Hours: 3
ARTS 3331	Intermediate Drawing Credit Hours: 3
ARTS 3335	Intermediate Painting Credit Hours: 3
ARTS 3340	Printmaking

	Credit Hours: 3
ARTS 3341	Fibers Credit Hours: 3
ARTS 3352	Traditional Photography Credit Hours: 3
ARTS 4302	Crafts Design Credit Hours: 3
ARTS 4311	Process Sculpture Credit Hours: 3
ARTS 4320	Advanced Ceramics Credit Hours: 3
ARTS 4350	Advanced Traditional Photography Credit Hours: 3

Minor in Teacher Education (15 hours)

The 15-hour minor in Teacher Education in the College of Education will provide students foundational knowledge in multiple educational areas including early childhood, special populations, multiculturalism, learning theories, and instructional technologies. This minor may be of special interest to students who want to develop their interest in the teaching profession. Moreover, it would provide basic information in working in various types of formal and information educational settings like afterschool and tutoring programs.

Required courses in the minor (15 hours)	
Complete any 5 of the courses listed. At least 3 of the courses selected must be at the 3000/4000 level.	
ECED 1303	Children and Families Credit Hours: 3
ECED 1311	Historical and Recent Trends in Early Childhood Education Credit Hours: 3
ECED 1318	Nutrition, Health and Safety Credit Hours: 3

ECED 1354	Developmental Theories of Young Children Credit Hours: 3
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3
SPED 2301	Introduction to Special Populations Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 1301	Exploring Teaching as a Profession Credit Hours: 3

Minor in Video Production

Video has become an essential communication tool, rivaling in importance the use of the written word or still images. We can find it all around us and used for all kinds of purposes, from Facebook posts to shop window advertisements to restaurant menus to news to documentary and Hollywood-style films. Just like for writing or image production, the skills to create impactful video pieces have to be learned. This minor is intended to teach the necessary skills and the artistic tools necessary to students of all fields, from engineering to business to science to education to philosophy to mention just a few.

Required Course:

COMM 4354	Video Production I Credit Hours: 3
Choose 4 of the following:	
ARTS 4352	Video Arts Credit Hours: 3

COMM 4301	Global Issues in Film Credit Hours: 3
COMM 4355	Narrative Video Production Credit Hours: 3
COMM 4357	Documentary Video Production Credit Hours: 3
COMM 4359	Studio-Based Video Production Credit Hours: 3
COMM 4389	Independent Study in Communication Credit Hours: 3
COMM 4391	Selected Topics in Communication Credit Hours: 3

Minor in Women's and Gender Studies

A minor in Women's and Gender Studies offer challenging new perspectives by exploring the contribution of women and the impact of gender in a variety of academic disciplines. All students pursuing the minor in Women's and Gender Studies must complete 15 hours of coursework. At least 12 of the 15 hours must be taken in residence and students must maintain a minimum of 2.0 GPA for all courses applied toward the minor. Students may consult with the minor adviser regarding courses that will substitute for some of those below.

Prerequisite course (3 hours)

Select ONE course from the following list. This course will serve as the prerequisite for the required course WGST 4372.

WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
WGST 4308	Perspectives in Women's and Gender Studies Credit Hours: 3
WGST 4312	Women of Color Credit Hours: 3

Required course (3 hours)	
WGST 4372	Seminar in Women's and Gender Studies Credit Hours: 3
Electives (9 hours)	
Select THREE courses from the following list.	
WGST 1301	Gender Matters: Introduction to Women's and Gender Studies Credit Hours: 3
WGST 3341	Women in American History Credit Hours: 3
WGST 4308	Perspectives in Women's and Gender Studies Credit Hours: 3
WGST 4312	Women of Color Credit Hours: 3
WGST 4314	Latina Social Movements in the Americas Credit Hours: 3
WGST 4316	Women and the Law Credit Hours: 3
WGST 4329	History of Feminism Credit Hours: 3
WGST 4334	Psychology of Women Credit Hours: 3
WGST 4335	Women's Health and Sexuality Credit Hours: 3
WGST 4337	Violence Against Women Credit Hours: 3
WGST 4341	Women in Society Credit Hours: 3
WGST 4348	Development of Gender and Racial Identity Credit Hours: 3
WGST 4360	Women in Literature Credit Hours: 3
WGST 4370	Gender and Identity in the Visual Arts Credit Hours: 3
WGST 4389	Independent Study in Women's and Gender Studies Credit Hours: 3
WGST 4391	Selected Topics in Women's and Gender Studies Credit Hours: 3

Minor in Youth and Police Studies

The Criminology program offers a minor for students interested in gaining academic and practical skills in the area of youth development, policing, and the interaction between police and teens. Students must complete the following five courses at the University of Houston-Clear Lake.

Required courses in the minor (15 hours)	
CRIM 1301	Introduction to Criminal Justice Credit Hours: 3
CRIM 4313	Juvenile Delinquency Credit Hours: 3
CRIM 4338	Policing and Society Credit Hours: 3
CRIM 4339	Youth, Law, and Society Credit Hours: 3
PSYC 4315	Adolescent Psychology Credit Hours: 3

Teacher Certification

Post-Baccalaureate Teacher Certification Plan Core Subjects 4-8

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certification Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
Nine hours of upper-level courses required, one course from each of the following areas: Biology, Earth Science, and Physics/Chemistry/Astronomy	
LLLS 4345	Survey of Children's Literature Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
MATH 1351	Mathematics for Teachers II Credit Hours: 3
Choose one course from:	
LITR 3302	Principles of Composition Credit Hours: 3
WRIT 3304	Writing for Education Credit Hours: 3
WRIT 3307	Advanced Writing Credit Hours: 3
Choose one course from:	
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4314	Teaching Geography

	Credit Hours: 3
Choose one course from:	
HIST 2301	Texas History Credit Hours: 3
HIST 3325	Colonial America Credit Hours: 3
HIST 3327	The New American Nation Credit Hours: 3
HIST 3330	Civil War and Reconstruction Credit Hours: 3
Choose one course from:	
LITR 3371	Creative Writing Credit Hours: 3
LITR 4320	The Romantic Movement in British Literature Credit Hours: 3
LITR 4336	Contemporary American Literature Credit Hours: 3
LITR 4340	American Immigrant Literature Credit Hours: 3
LITR 4368	Literature of the Future Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4331	Social Studies Methods for Grades 4-8 Credit Hours: 3
TCED 4332	Science Methods for Grades 4-8 Credit Hours: 3
TCED 4333	Mathematics Methods for Grades 4-8 Credit Hours: 3

Choose one of two sets:

TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan Core Subjects EC-6 (Early Childhood Concentration)

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements Academic Specialization Courses:

Academic Specialization Courses:	
ECED 1303	Children and Families Credit Hours: 3

ECED 1354	Developmental Theories of Young Children Credit Hours: 3
ECED 4302	Integrated Curriculum for Young Children Credit Hours: 3
ECED 4311	Reading Development in Young Children Credit Hours: 3
ECED 4314	Observational/Developmental Assessment of Young Children Credit Hours: 3
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6

TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6
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Other required courses:

Other required courses:	
ARTS 2379	Arts and the Child Credit Hours: 3
HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
LLLS 4344	Literacy Methods for EC-6 Credit Hours: 3
LLLS 4345	Survey of Children's Literature Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Post-Baccalaureate Teacher Certification Plan Core Subjects EC-6 (Reading Concentration)

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4313	Corrective and Remedial Reading Credit Hours: 3
LLLS 4332	Diagnostic and Prescriptive Reading Credit Hours: 3
LLLS 4344	Literacy Methods for EC-6

	Credit Hours: 3
LLLS 4345	Survey of Children's Literature Credit Hours: 3
LLLS 4379	Practicum in Clinical Reading Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other Required Courses:	
ARTS 2379	Arts and the Child Credit Hours: 3

HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan Core Subjects EC-6 ESL Supplemental

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

SILC 4302	Introduction to the Study of Languages Credit Hours: 3
SILC 4310	Foundations of Bilingual and ESL Education Credit Hours: 3
SILC 4311	ESL Methods Credit Hours: 3
SILC 4312	Content-Based ESL Credit Hours: 3
SILC 4313	Language Learning Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:

EDUC 4310	Theories of Educational Psychology
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	Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:

TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:

ARTS 2379	Arts and the Child Credit Hours: 3
HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
LLLS 4344	Literacy Methods for EC-6 Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3
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Post-Baccalaureate Teacher Certification Plan Core Subjects EC-6 Special Education EC-12

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
SPED 4311	Assessment in Special Education Credit Hours: 3
SPED 4312	Diagnostic Instruction for Learners With Special Needs Credit Hours: 3
SPED 4313	Individualizing Instruction for Students With Disabilities Credit Hours: 3
SPED 4321	Implementing Positive Behavior Supports Credit Hours: 3
SPED 4332	Early Childhood Special Education Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6 Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
ARTS 2379	Arts and the Child Credit Hours: 3
HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
LLS 4344	Literacy Methods for EC-6 Credit Hours: 3
LLS 4345	Survey of Children's Literature Credit Hours: 3
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1

Post-Baccalaureate Teacher Certification Plan

Core Subjects EC-6 with Bilingual Supplemental

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
SILC 4301	Spanish for Bilingual Teachers Credit Hours: 3
SILC 4310	Foundations of Bilingual and ESL Education Credit Hours: 3
SILC 4313	Language Learning Credit Hours: 3
SILC 4316	Bilingual Curriculum in the Content Areas Credit Hours: 3
SILC 4351	Development of Biliteracy Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4321	Social Studies Methods for EC-6 Credit Hours: 3
TCED 4322	Science Methods for EC-6 Credit Hours: 3
TCED 4323	Mathematics Methods for EC-6

	Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
ARTS 2379	Arts and the Child Credit Hours: 3
HLTH 3302	Health and Physical Education - EC-6 Survey Credit Hours: 3
LLLS 4344	Literacy Methods for EC-6 Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4100	Core Subjects Teacher Seminar Credit Hours: 1
TCED 4303	Creating Positive Learning Environments in EC-6 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan English Language Arts and Reading 4-8

This plan has a content waiver option based on passing the content state assessments on the

first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
LITR 3361	Shakespeare Credit Hours: 3
LITR 3302	Principles of Composition Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4345	Survey of Children's Literature Credit Hours: 3
LLLS 4346	Literacy Methods for 4-8 Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
Choose two courses from:	
LITR 3371	Creative Writing Credit Hours: 3
LITR 4320	The Romantic Movement in British Literature Credit Hours: 3
LITR 4336	Contemporary American Literature Credit Hours: 3
LITR 4340	American Immigrant Literature Credit Hours: 3
LITR 4368	Literature of the Future Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism

Credit Hours: 3

Pedagogy:

Pedagogy:	
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan English Language Arts and Reading 7-12

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
LITR 3302	Principles of Composition Credit Hours: 3
LITR 3361	Shakespeare Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
LLLS 4352	Young Adult Literature and Reading Credit Hours: 3
Choose two courses from:	
LITR 3334	Mythology Credit Hours: 3
LITR 3371	Creative Writing Credit Hours: 3
LITR 4301	Literary Theory Credit Hours: 3
LITR 4304	Workshop in Poetics Credit Hours: 3
LITR 4324	Rise and Development of the British Novel Credit Hours: 3
LITR 4342	Modern and Contemporary Drama Credit Hours: 3
LITR 4344	The Modern Novel Credit Hours: 3
LITR 4360	Film as Literature Credit Hours: 3
LITR 4362	The Literature of Adolescence Credit Hours: 3
LITR 4364	Women in Literature Credit Hours: 3
LITR 4368	Literature of the Future Credit Hours: 3
LITR 4370	Tragedy Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
LLLS 4364	Methods in Secondary English/ Language Arts Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan English Language Arts, Reading and Social Studies 4-8

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements Academic Specialization Courses:

Academic Specialization Courses:	
HIST 2301	Texas History Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4314	Teaching Geography Credit Hours: 3
LITR 3361	Shakespeare Credit Hours: 3
LITR 3302	Principles of Composition Credit Hours: 3
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4346	Literacy Methods for 4-8 Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
Choose one:	
HIST 3325	Colonial America Credit Hours: 3

HIST 3327	The New American Nation Credit Hours: 3
HIST 3330	Civil War and Reconstruction Credit Hours: 3
Choose two courses from:	
LITR 3371	Creative Writing Credit Hours: 3
LITR 4320	The Romantic Movement in British Literature Credit Hours: 3
LITR 4336	Contemporary American Literature Credit Hours: 3
LITR 4340	American Immigrant Literature Credit Hours: 3
LITR 4368	Literature of the Future Credit Hours: 3

College of Education Core Requirements:

Core of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4331	Social Studies Methods for Grades 4-8 Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6

TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6
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Other required courses:

Other required courses:	
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan History 7-12

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses

Academic Specialization Courses	
GEOG 1303	World Regional Geography Credit Hours: 3
HIST 3325	Colonial America Credit Hours: 3
HIST 3330	Civil War and Reconstruction Credit Hours: 3
HIST 4325	Studies in Middle Eastern History Credit Hours: 3

History Electives

Six hours of upper-level HIST courses required. Choose two HIST courses with adviser approval.

College of Education Core Requirements

College of Education Core Requirements:

EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy

Pedagogy:

TCED 4361	Methods in Secondary Social Studies Credit Hours: 3
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Choose one of two sets:

TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses

Other required courses:

LLS 4311	Survey of Reading Credit Hours: 3
LLS 4351	Reading in Content Subjects Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3

TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan Life Sciences 7-12

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1
CHEM 1312	General Chemistry II Credit Hours: 3
CHEM 1112	Laboratory for General Chemistry II Credit Hours: 1

BIOL 3341	Molecular Genetics Credit Hours: 3
Choose one:	
BIOL 3311	Marine Biology Credit Hours: 3
BIOL 3333	Environmental Biology Credit Hours: 3
BIOL 4305	Ecology of the Amazon Credit Hours: 3
Choose one:	
BIOL 4343	Plant Physiology Credit Hours: 3
BIOL 4344	Comparative Animal Physiology Credit Hours: 3
BIOL 4345	Human Physiology Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4362	Methods in Secondary Science Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Choose one of two sets:	
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3

SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan Mathematics 4-8

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2413	Calculus I Credit Hours: 4
MATH 2414	Calculus II Credit Hours: 4
MATH 3304	Algebra Through Technology Credit Hours: 3
STAT 4344	Introduction to Probability Credit Hours: 3
Choose four courses from:	
MATH 2315	Calculus III Credit Hours: 3
MATH 3301	History of Mathematical Sciences Credit Hours: 3

MATH 3305	Euclidian and Non-Euclidian Geometry Credit Hours: 3
MATH 3312	Number Theory Credit Hours: 3
MATH 4315	Numerical Analysis and its Applications Credit Hours: 3
MATH 4316	Mathematic Software Applications Credit Hours: 3
MATH 4322	Introduction to Abstract Algebra Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4333	Mathematics Methods for Grades 4-8 Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
LLLS 4345	Survey of Children's Literature Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan Mathematics 7-12

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
MATH 2318	Linear Algebra Credit Hours: 3
MATH 2413	Calculus I Credit Hours: 4
MATH 2414	Calculus II Credit Hours: 4
MATH 3304	Algebra Through Technology Credit Hours: 3

MATH 3305	Euclidian and Non-Euclidian Geometry Credit Hours: 3
STAT 4344	Introduction to Probability Credit Hours: 3
Choose five courses from:	
MATH 2315	Calculus III Credit Hours: 3
MATH 2320	Differential Equations Credit Hours: 3
MATH 3301	History of Mathematical Sciences Credit Hours: 3
MATH 4315	Numerical Analysis and its Applications Credit Hours: 3
MATH 4316	Mathematic Software Applications Credit Hours: 3
MATH 4322	Introduction to Abstract Algebra Credit Hours: 3
MATH 4325	Nonlinear Dynamics and Applications Credit Hours: 3
STAT 4345	Introduction to Statistics Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4363	Methods in Secondary Mathematics Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3

TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other Required Courses:

Other required courses:	
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan Science 4-8

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
BIOL 1306	Biology for Science Majors I Credit Hours: 3
BIOL 1106	Laboratory for Biology for Science Majors I Credit Hours: 1
BIOL 1307	Biology for Science Majors II Credit Hours: 3
BIOL 1107	Laboratory for Biology for Science Majors II Credit Hours: 1
ENSC 1301	Environmental Science I Credit Hours: 3
ENSC 1101	Laboratory for Environmental Science I Credit Hours: 1
PHYS 1301	College Physics I Credit Hours: 3
PHYS 1101	Laboratory for College Physics I Credit Hours: 1
GEOL 1303	Physical Geology Credit Hours: 3
GEOL 1103	Laboratory for Physical Geology Credit Hours: 1
CHEM 1311	General Chemistry I Credit Hours: 3
CHEM 1111	Laboratory for General Chemistry I Credit Hours: 1

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:	
TCED 4332	Science Methods for Grades 4-8 Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
LLS 4345	Survey of Children's Literature Credit Hours: 3
LLS 4351	Reading in Content Subjects Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan Social Studies 4-8

This plan has a content waiver option based on passing the content state assessment on the

first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements**Academic Specialization Courses:**

Academic Specialization Courses:	
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4314	Teaching Geography Credit Hours: 3
HIST 2301	Texas History Credit Hours: 3
Choose One:	
GEOG 1301	Modern Physical Geography Credit Hours: 3
GEOG 1302	Global Geography Credit Hours: 3
Choose One:	
HIST 3325	Colonial America Credit Hours: 3
HIST 3327	The New American Nation Credit Hours: 3
HIST 3330	Civil War and Reconstruction Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy:

Pedagogy:

TCED 4331	Social Studies Methods for Grades 4-8 Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9
Choose one of two sets:	
TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
LLLS 4345	Survey of Children's Literature Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4304	Creating Positive Learning Environments in 4-8 Credit Hours: 3

Post-Baccalaureate Teacher Certification Plan Social Studies 7-12

This plan has a content waiver option based on passing the content state assessment on the first attempt. See a College of Education (COE) adviser for details.

Check prerequisites before enrolling in any courses.

Certificate Plan Requirements

Academic Specialization Courses:

Academic Specialization Courses:	
GEOG 1301	Modern Physical Geography Credit Hours: 3
GEOG 1303	World Regional Geography Credit Hours: 3
GEOG 4314	Teaching Geography Credit Hours: 3
HIST 2301	Texas History Credit Hours: 3
HIST 3325	Colonial America Credit Hours: 3
HIST 3330	Civil War and Reconstruction Credit Hours: 3

College of Education Core Requirements:

College of Education Core Requirements:	
EDUC 4310	Theories of Educational Psychology Credit Hours: 3
INST 3313	Survey of Instructional Technologies Credit Hours: 3
SILC 4315	Theories of American Pluralism Credit Hours: 3

Pedagogy Courses:

Pedagogy Courses:	
TCED 4361	Methods in Secondary Social Studies Credit Hours: 3
Choose one of two sets:	
TCED 4378	Pre-Service Internship I Credit Hours: 3
TCED 4978	Pre-Service Internship II/Clinical Teaching Credit Hours: 9

TCED 4678	Post-Degree Internship I Credit Hours: 6
TCED 4679	Post-Degree Internship II/Student Teaching Credit Hours: 6

Other required courses:

Other required courses:	
LLLS 4311	Survey of Reading Credit Hours: 3
LLLS 4351	Reading in Content Subjects Credit Hours: 3
SPED 4300	Survey of Exceptionalities Credit Hours: 3
TCED 4102	Secondary (4-8 and 7-12) Content Teacher Seminar Credit Hours: 1
TCED 4306	Creating Positive Learning Environments in 7-12 Credit Hours: 3

Course Roster

ACCT Accounting

ACCT 2301 Principles of Accounting I – Financial Credit: 3 | Lecture: 3

Accounting concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements; and asset and equity accounting in proprietorships, partnerships and corporations.

ACCT 2302 Principles of Accounting II– Managerial

Credit: 3 | Lecture: 3

Accounting concepts and their application to cost behavior, budgeting, responsibility accounting, cost control and product costing.

Prerequisites: ACCT 2301

ACCT 3331 Managerial Accounting

Credit: 3 | Lecture: 3

Analysis of cost systems and preparation of cost statements. Management use of cost statements for control and financial reporting. Cannot be taken for credit by accounting majors.

Prerequisites: Six semester hours of Principles of Accounting or equivalent.

ACCT 3332 Financial Reporting and Analysis

Credit: 3 | Lecture: 3

Intermediate accounting concepts and procedures for financial reporting and analysis. Cannot be taken for credit by accounting majors.

Prerequisites: Six semester hours of Principles of Accounting or equivalent.

ACCT 3333 Cost Accounting

Credit: 3 | Lecture: 3

Intensive examination of cost systems, cost behavior, approaches to cost statements, implications for managerial planning and financial reporting.

Prerequisites: Six semester hours of Principles of Accounting or equivalent.

ACCT 3341 Intermediate Accounting I

Credit: 3 | Lecture: 3

Study of the concepts and procedures underlying the measurement and reporting of financial information.

Prerequisites: Six semester hours of Principles of Accounting or equivalent.

ACCT 3342 Intermediate Accounting II

Credit: 3 | Lecture: 3

Continuation of the study of concepts and procedures underlying the measurement and reporting of financial information.

Prerequisites: ACCT 3341 or equivalent.

ACCT 4331 Federal Taxation of Individuals

Credit: 3 | Lecture: 3

An analysis of the federal income tax laws as they apply to individuals.

Prerequisites: Six semester hours of Principles of Accounting or equivalent.

ACCT 4332 Financial Information Systems

Credit: 3 | Lecture: 3

Design and operation of contemporary accounting information systems, including control concepts and reporting responsibilities.

Prerequisites: ACCT 3341 and ISAM 3303 or equivalent.

ACCT 4336 Principles of Auditing**Credit: 3 | Lecture: 3**

This course is meant to provide students with an introduction to the internal auditing process and profession. Topics include definitions, frameworks, risk identification/analysis, governance/control issues, and conducting internal audit engagements.

Prerequisites: ACCT 3342 or equivalent

ACCT 4337 Business Valuation**Credit: 3 | Lecture: 3**

Business valuation teaches the concepts and techniques in using accounting and financial information to determine the value of a business enterprise or ownership interest. The course will cover the theories and standards in business valuation, analysis of financial statements to estimate future income, the commonly used methods of business valuation, such as the income approach, market approach, and assets approach, and the calculation of discount rates. Through this course, students will acquire the basic skills and complete hands-on exercises in valuing closely held businesses and equity investments.

Prerequisites: ACCT 3342 or equivalent

ACCT 4341 Auditing I**Credit: 3 | Lecture: 3**

An introduction to auditing theory and standards, with emphasis on the attest function, professional ethics and responsibilities, audit risk concepts and audit planning.

Prerequisites: ACCT 3342 or equivalent

Corequisites: ACCT 4332 or equivalent

ACCT 4342 Government and Not-for-Profit Accounting**Credit: 3 | Lecture: 3**

The course covers the government and not-for-profit environment, fund accounting, budgeting, revenue and expenditure recognition, and financial reporting requirements.

Prerequisites: ACCT 3342 or equivalent.

ACCT 4344 Oil and Gas Accounting**Credit: 3 | Lecture: 3**

Exploration and production activities of a petroleum company are examined from both a financial and tax accounting standpoint.

Prerequisites: ACCT 3341 or equivalent.

ACCT 4345 Software Applications in Auditing**Credit: 3 | Lecture: 3**

This course is designed to provide the student with a solid foundation in using various software tools to improve and enhance the audit of financial statements. Students will learn about and have practical experience with manipulating raw data to unlock the useful audit information contained in the raw data. The course will use the tools to perform data extraction, analysis, and sampling. The course will also briefly cover using the tools for fraud detection and prevention.

Prerequisites: ACCT 3341 and ISAM 3303 or equivalents.

Corequisites: ACCT 4332

ACCT 4346 Business Ethics for Accountants
Credit: 3 | Lecture: 3

The objective of this course is to provide the student with an educational background in what constitutes ethical conduct in business and accounting. It will provide a framework for making ethical decisions in a student's professional career in accounting. Requires reading and comprehending complex case problems and the use of critical thinking skills to determine a solution. Solutions must be presented in writing in a coherent and grammatically correct manner. Expertise in accounting is required as the cases involve some forensic work to determine what happened and what should have happened.

Prerequisites: ACCT 3341 and ACCT 3342, or ACCT 5133 and ACCT 5134, or equivalents.

ACCT 4348 Introduction to Data Analytics in Accounting**Credit: 3 | Lecture: 3 | Lab: 1**

This course provides students with an introduction to data analytics with a focus on the area of accounting. Students will learn and practice analytical methods used in accounting, become proficient in understanding and presenting data, develop an ability to evaluate the integrity of data, and gain proficiency in using computer applications for data analyses.

Prerequisites: ACCT 2301 or equivalent, DSCI 3321 or equivalent, ISAM 3303 or equivalent,

ACCT 4352 Advanced Financial Accounting
Credit: 3 | Lecture: 3

Accounting for the acquisition and consolidation of domestic and foreign concerns, foreign currency translations and re-measurement; accounting for branches, governmental agencies and other not-for-profit entities.

Prerequisites: ACCT 3342 or equivalent.

ACCT 4353 Federal Taxation of Business Entities
Credit: 3 | Lecture: 3

This course is designed to provide a broad overview of entity taxation and the link between the accounting information reported for financial statement purposes and the information reported on business tax returns. It addresses the income tax laws governing the taxation of corporations, partnerships, limited liability companies, limited liability partnerships, and S corporations.

Prerequisites: ACCT 4331 or equivalent.

ACCT 4361 International Accounting**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of international accounting issues from a managerial accounting and financial reporting perspective. This course addresses the current status of the international financial reporting standards (IFRS) and the challenges facing users of multinational enterprise's financial information when it is prepared using IFRS or other national financial reporting regimes.

Prerequisites: ACCT 3341 or equivalent.

ACCT 4379 Internship in Accounting**Credit: 3 | Lecture: 3**

Supervised work experiences each week in an approved accounting firm, governmental agency, or business. Written work as required by sponsoring faculty member.

Prerequisites: 15 hours of upper-level credit, approval of associate dean and faculty chair, and sponsoring faculty member.

ACCT 4389 Independent Studies in Accounting**Credit: 3 | Lecture: 3**

Independent directed study in Accounting.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

ACCT 4391 Selected Topics in Accounting**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

ACCT 5234 Corporate and Pass Through Entity Taxation**Credit: 3 | Lecture: 0 | Lab: 1**

This course addresses entity level taxation including: corporations, partnerships, limited liability companies, limited liability partnerships, S corporations, and fiduciaries. The course examines the link between the accounting information reported for financial statement purposes and the information reported on business tax returns.

Prerequisites: ACCT 5231 or equivalent.

ACCT 5333 Fundamentals of Databases and Business Intelligence**Credit: 3 | Lecture: 3 | Lab: 0**

The topics covered include the following: (1) database concepts such as database models, modeling techniques and normalization; design, development, and maintenance of a relational database; formulation of commands to insert and update data, retrieve information, generate reports from a database; and (2) business intelligence concepts such as: business intelligence architecture; schema of a data warehouse; online analytical processing; big data; and NoSQL databases. Includes numerous hands-on assignments. (Cross-listed with ISAM 5331).

Prerequisites: ISAM 3034 or ISAM 5030, or 6 hours of college-level programming.

ACCT 5334 Advanced Database Applications Development**Credit: 3 | Lecture: 3 | Lab: 0**

The course covers advanced commands and techniques to: design, develop and maintain a database; insert and update data in a database, retrieve information and generate reports and develop and implement database objects to manage, control and administer database processing. Includes numerous hands-on assignments. The coursework requirements also include Oracle SQL and Oracle PL/SQL certifications. (Cross-listed with ISAM 5632.)

Prerequisites: ACCT 5333 or equivalent.

ACCT 5335 Information Systems Audit and Security**Credit: 3 | Lecture: 3 | Lab: 0**

Discussion of the audit process, internal controls as they relate to technology, and business process documentation. Study of business processes, deployment and management of technology resources, risk assessment and change management, IT networks, and IT governance. Extensive hands-on experience detecting fraud using generalized audit software (IDEA). Discussion of computer forensics and other current topics related to IT security. Written communication skills are emphasized through the preparation of audit reports based on findings from fraud detection assignments. Covers topics tested in the Certified Information Systems Auditor (CISA) exam. (Cross-listed with ISAM 5731).

Prerequisites: ISAM 5330 or equivalent.

ACCT 5336 Systems Analysis and Design**Credit: 3 | Lecture: 3 | Lab: 0**

This course provides a step-by-step approach to developing computer-based information systems. It covers topics such as: systems development life cycle; systems development methodologies; system requirements determination and analysis; user-interface design; programs design and system architecture. The course includes a comprehensive group project. (Cross-listed with ISAM 5635.)

Prerequisites: ISAM 3034, ISAM 5030, or 6 hours of programming courses and ACCT 5333 or equivalent.

ACCT 5337 ERP System Concepts and Practices**Credit: 3 | Lecture: 3 | Lab: 1**

This course examines the integrated nature of business processes and how ERP systems can be configured to handle those processes. Students receive hands-on experience using SAP's current enterprise software. (Cross-listed with ISAM 5431).

Prerequisites: ACCT 5333 or equivalent.

ACCT 5431 Advanced Accounting**Credit: 3 | Lecture: 3**

Accounting and reporting of domestic and foreign consolidated corporations and branches, governmental and other not-for-profit entities.

Prerequisites: ACCT 5134 or equivalent

ACCT 5432 Acct for Govt & Not Profit**Credit: 3 | Lecture: 3**

The course covers the government and not-for-profit environment, fund accounting, budgeting, revenue and expenditure recognition, financial reporting requirements, and current issues.

Prerequisites: ACCT 5134 or equivalent

ACCT 5438 Fundamentals of Data Analytics in Accounting**Credit: 3 | Lecture: 3 | Lab: 0**

This course provides students with the fundamentals of data analytics with a focus on the area of accounting. Students will learn and practice analytical methods used in accounting, become proficient in understanding and presenting data, develop an ability to evaluate the integrity of data, and gain proficiency in using computer applications for data analyses. Students will also be required to complete a written case analysis relating to data analytics.

Prerequisites: ACCT 2301 or equivalent, FINC 5231 or equivalent, ISAM 5330 or equivalent

ACCT 6732 Seminar in Fraud Examination and Audit Risk (Capstone)**Credit: 3 | Lecture: 3 | Lab: 0**

Principles, analysis, and application of concepts related to fraud examination, fraud detection, and fraud deterrence. Current issues related to audit risk assessment and planning are also included.

Prerequisites: Other degree requirements and LAST SEMESTER, or permission from instructor.

ANTH Anthropology

ANTH 2346 General Anthropology**Credit: 3 | Lecture: 3 | Lab: 0**

Study of human beings, their antecedents and related primates, and their cultural behavior and institutions. Introduces the major subfields: physical and cultural anthropology, archeology, linguistics, and ethnology.

ANTH 3311 Contemporary Cultural Anthropology**Credit: 3 | Lecture: 3 | Lab: 0**

The comparative study of culture as manifested in technology, language, personality, and religion and in the social, economic, and political organization of societies.

ANTH 3330 Interdisciplinary Perspectives in Global Health**Credit: 3 | Lecture: 3 | Lab: 0**

Explores major health challenges in the world today and efforts to address them. Topics include health care systems, armed conflicts and emergencies, and major global initiatives for disease prevention and health promotion.

ANTH 3334 Human Sex, Culture, Health**Credit: 3 | Lecture: 3 | Lab: 0**

Explores cultural and biological dimensions of human sexuality from a cross-cultural perspective; examines how cultures mediate sexually transmitted disease, reproductive health, and gender roles, among other issues.

ANTH 3352 Political/Economic Anthropology**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the methods and theories used by anthropologists to understand political and economic systems in traditional and developing societies.

ANTH 3355 Topics in Asian Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Investigation of social and cultural diversity. Focuses on religion, economy, politics, and social structure. Topics vary; may be repeated for credit with permission of instructor.

ANTH 3357 Topics in African Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Investigation of cultural diversity of African societies and the African diaspora. Topics vary; may be repeated for credit with permission of instructor.

ANTH 3358 Topics in Middle Eastern Societies**Credit: 3 | Lecture: 3 | Lab: 0**

Investigation of the social and cultural diversity of peoples of the Middle Eastern societies. Focuses on religion, economy, politics, and social structure. Topics vary; may be repeated for credit with permission of instructor.

ANTH 3359 Gender, Media, and Diplomacy in the Arab World**Credit: 3 | Lecture: 3 | Lab: 0**

The course looks at U.S. and international policy and its relationship to diplomacy in the Arab World. Students look at the Arab world as it has developed since the dissolution of the Ottoman Empire. This class examines the connections between media production, gender, and nation state identity.

ANTH 3360 Islam in Africa**Credit: 3 | Lecture: 3 | Lab: 0**

The course focuses on the growth of Islam in Africa, looking carefully at the ways that different regions of the continent have been home to highly varied Muslim communities.

ANTH 3361 Anthropology of Food**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of production, consumption, and distribution of food in the United States and internationally.

ANTH 3362 Medicine, Bodies, and Culture**Credit: 3 | Lecture: 3 | Lab: 0**

Study of the relationships among illness, health, healing systems, the human body, bodily practices, and broader systems of social power through lecture, discussion, films and projects.

ANTH 4301 Studies in Cultural Diversity**Credit: 3 | Lecture: 3 | Lab: 0**

Critical examination of cultural diversity as expressed in formations of ethnicity, race, class, nationalism, and gender. Topics vary; may be repeated for credit with permission of instructor.

ANTH 4302 Applied Anthropology**Credit: 3 | Lecture: 0 | Lab: 0**

Explores application of anthropological insights and methods to address practical issues and public policy. It employs essential tools that can be used in many applied settings including governmental organizations, non-profits, and the private sectors.

ANTH 4303 Islam in America**Credit: 3 | Lecture: 3 | Lab: 0**

Explores various communities of Muslims from the American colonial period to the present with an emphasis on ethnic groups in different regions of the U.S.

ANTH 4304 The Arab Gulf: Culture, Economy, Modernity**Credit: 3 | Lecture: 3 | Lab: 0**

The course explores the unique cultures of the Arab Gulf region in historical, contemporary, and diplomatic perspectives.

ANTH 4306 Service Learning**Credit: 3 | Lecture: 3 | Lab: 0**

Service Learning is a course designed for students to take an active part in organized experiences that meet actual community needs combined with academic instruction, focusing on critical, reflective thinking and personal and civic responsibility. This course will involve students in activities that address community-identified needs with service integrating academic skills.

ANTH 4330 Cultural Study Abroad**Credit: 3 | Lecture: 3 | Lab: 0**

Course exposes students to culture, history, religion, and politics of another country. Involves foreign travel and includes a prerequisite of semester-long course focusing on the study-abroad country. Permission of instructor required.

ANTH 4333 Peoples of Mexico and Central America**Credit: 3 | Lecture: 3 | Lab: 0**

A survey of anthropological approaches to the regions of Mexico, Central America, and U.S.-Mexico border. Particular attention paid to gender and women's issues as well as race and class.

ANTH 4334 Native Americans**Credit: 3 | Lecture: 3 | Lab: 0**

An examination of the social and cultural diversity of indigenous peoples of North America from anthropological and historical perspectives.

ANTH 4341 Gender and Sexuality in Global Perspectives**Credit: 3 | Lecture: 3 | Lab: 0**

Explores the many ways gender and sexuality are constructed cross-culturally. Compares the way different societies conceptualize each gender and assign them social, economic, and political significance.

ANTH 4342 Human Rights, Social Justice, Health**Credit: 3 | Lecture: 3 | Lab: 0**

Critical examination of human rights in the contemporary period with a focus on their connection to health and well-being.

ANTH 4343 Anthropological Perspectives on World Religion**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis of the ways religion is lived and practiced in diverse communities in the world.

ANTH 4351 Families, Communities, and Globalization**Credit: 3 | Lecture: 3 | Lab: 0**

An examination of ideas of family, race, gender, and relatedness in transnational and cross-cultural perspectives. Draws on case studies and theories from anthropology and other fields.

ANTH 4352 World Prehistory and Archaeology**Credit: 3 | Lecture: 3 | Lab: 0**

An examination of the basic methods and theories used by archaeologists to explore human evolution and prehistory.

ANTH 4364 Visual Anthropology**Credit: 3 | Lecture: 3 | Lab: 0**

Study of anthropology through visual media, specifically film and still photography.

ANTH 4372 Applied Qualitative Methods**Credit: 3 | Lecture: 0 | Lab: 3**

Skill-building course focused on different methods, protocols, and techniques of qualitative research practices as applicable in social science studies and beyond.

ANTH 4389 Independent Study in Anthropology**Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required.

ANTH 4391 Selected Topics in Anthropology**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

ARTS Art and Design

ARTS 1303 World Art Survey I

Credit: 3 | Lecture: 3 | Lab: 0

Examination of painting, sculpture, architecture, and other arts from prehistoric to Renaissance periods.

ARTS 1304 World Art Survey II

Credit: 3 | Lecture: 3 | Lab: 0

Examination of painting, sculpture, architecture, and other arts from the post-Renaissance to the contemporary period.

ARTS 1311 Design Foundations

Credit: 3 | Lecture: 0 | Lab: 3

An exploration of the elements and principles of art within the context of two-dimensional design. Assignments will utilize various media to investigate concepts introduced in lectures and readings. Focus on terminology will enable students to speak and communicate knowledgeably about their work.

ARTS 1314 Dance Appreciation

Credit: 3 | Lecture: 3 | Lab: 0

Dance Appreciation provides an introduction to dance including its cultural, social, and artistic aspects. This course examines Dance as a primary mode of human expression and communication with emphasis on historical perspectives observation and analysis of live and video performance and exploration/analysis of creative and expressive experiences.

ARTS 1316 Drawing Foundations

Credit: 3 | Lecture: 0 | Lab: 3

Introduces an array of materials and techniques fundamental to the practice of drawing. Through observational studies, students will develop a technical and conceptual understanding of this expressive medium.

ARTS 1325 Drawing for Non-Art Majors

Credit: 3 | Lecture: 0 | Lab: 3

Exploration of drawing media, composition, and space relationships using recognizable forms.

ARTS 1371 Photography for Non-Art Majors

Credit: 3 | Lecture: 0 | Lab: 3

Exploration of basic methods and processes of the photographic medium. Topics include use of camera and techniques for taking better photographs.

ARTS 2316 Painting

Credit: 3 | Lecture: 0 | Lab: 3

An introduction to the materials and techniques fundamental to the discipline of painting. Through observational studies, students will develop a technical and conceptual understanding of this expressive medium.

Prerequisites: ARTS 1316

ARTS 2371 Digital Photography

Credit: 3 | Lecture: 3 | Lab: 0

Introduction to Digital Photography. Emphasis on the manual controls of the DSLR camera including ISO, Aperture, and Shutter Speeds. Introduction to Photoshop, image enhancement and combining images. Lectures on portraiture and studio photography.

ARTS 2379 Arts and the Child**Credit: 3 | Lecture: 3 | Lab: 1**

Prepares individuals to teach three art forms – visual art, music, theater – to young children through elementary ages.

ARTS 3310 Sculpture**Credit: 3 | Lecture: 0 | Lab: 3**

A study of three-dimensional forms as related to techniques, processes, aesthetics, and other materials.

ARTS 3320 Ceramics**Credit: 3 | Lecture: 0 | Lab: 3**

Introduction to basic ceramic approaches, materials, and processes including wheel throwing, hand-building, glazing, and kiln firing. Examines contemporary and historical approaches to ceramics focusing on the vessel and sculptural objects.

ARTS 3331 Intermediate Drawing**Credit: 3 | Lecture: 0 | Lab: 3**

Expands upon the methods and techniques introduced in beginning drawing courses. Studio assignments will encourage students to relate conceptual ideas with their technical skills while exploring a range of drawing media.

Prerequisites: ARTS 1316 or permission of instructor.

ARTS 3333 Life Drawing**Credit: 3 | Lecture: 0 | Lab: 3**

Introduction to techniques of proportion and accuracy in drawing the human form starting from the skeleton and progressing to a live model. Students work in pencil, pastel, and charcoal in both detailed and gesture drawings. Topics vary; may be repeated for credit with permission of instructor.

Prerequisites: ARTS 1316

ARTS 3335 Intermediate Painting**Credit: 3 | Lecture: 0 | Lab: 3**

This course expands upon the methods and techniques introduced in beginning painting courses. Studio assignments will encourage students to relate conceptual ideas with their technical skills while exploring a range of painting media.

Prerequisites: ARTS 2316 or permission of instructor.

ARTS 3340 Printmaking**Credit: 3 | Lecture: 0 | Lab: 6**

An exploration of the processes involved in a variety of printmaking media, including color linocut, copper etching, and monotype. Other techniques that may also be covered include woodcut, collagraph, and/or book arts.

Prerequisites: ARTS 1316 or equivalent.

ARTS 3341 Fibers**Credit: 3 | Lecture: 0 | Lab: 3**

History, design, and techniques of woven and non-woven fiber forms.

ARTS 3350 Art 1900–1950**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Examines the art of Europe, the United States, and Latin America in the first half of the twentieth century. Topics include the birth and growth of modernism, the impact of the World Wars on the artistic communities of the regions studied, and major movements such as Cubism, Dadaism, Fauvism, Impressionism, and Surrealism. (Cross-listed with HUMN 3350.)

ARTS 3351 Art 1950–Present**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Examines the art of Europe, the United States, and Latin America in the first half of the twentieth century. Topics include art in the aftermath of World War II, conceptualism, performance art, video art, feminist art, and the contemporary art market. (Cross-listed with HUMN 3351.)

ARTS 3352 Traditional Photography**Credit: 3 | Lecture: 3 | Lab: 1**

Exploration of methods, processes, and craft of film based on photography. Techniques includes chemical development of photographic film and paper.

ARTS 3355 Latin American Art of the Twentieth Century**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Examine the art of 20th century Latin America through a series of major modern art centers, including Mexico City, Havana, Buenos Aires, Rio de Janeiro, Bogota, and Caracas. (Cross-listed with HUMN 3355.)

ARTS 3356 Mexican Art, 1500–Present**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Explore the history of visual art in Mexico, beginning with the period of encounter between native populations of that region of the Americas and the European explorers who arrived in the Americas in the late 15th century and continuing through the colonial, independence, and modern eras. (Cross-listed with HUMN 3356.)

ARTS 3357 History and Theory of Photography**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Study of history and function of photography from its development in the fine arts to present-day significance of mechanical and digital reproduction. (Cross-listed with HUMN 3357.)

ARTS 3360 Graphic Design**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of practices of graphic design. Presentations on contemporary design techniques. Design projects in vector drawing using Adobe Illustrator. Previous skills in art, design, and computer software desirable.

ARTS 3369 Illustration**Credit: 3 | Lecture: 0 | Lab: 3**

As an introduction to illustration, this course examines different working methods to develop content driven imagery. Assignments will use traditional illustration skills to provide exposure to various materials including pen and ink, acrylic, gouache and experimental media.

ARTS 4189 Independent Study in Art**Credit: 1 | Lecture: 0 | Lab: 0**

Permission of instructor required. May be taken for 1 hour of credit. For 2 or 3 credit hours of Independent Study credit, students should enroll in ARTS 4289 or ARTS 4389.

ARTS 4289 Independent Study in Art**Credit: 2 | Lecture: 0 | Lab: 0**

Permission of instructor required. May be taken for 2 hour of credit. For 1 or 3 credit hours of Independent Study credit, students should enroll in ARTS 4189 or ARTS 4389.

ARTS 4300 Methods in Elementary Art Education**Credit: 3 | Lecture: 3 | Lab: 1**

Examination of EC-6 standards, research, and trends in theory and practice. Curriculum, instructional techniques, and classroom management are fully addressed. TBA practicum required. Permission of instructor required.

ARTS 4301 Methods in Secondary Art Education**Credit: 3 | Lecture: 3 | Lab: 1**

Examination of 7-12 standards, research and trends in theory and practice. Curriculum instructional techniques, and classroom management are fully addressed. TBA practicum required. Permission of instructor required.

ARTS 4302 Crafts Design**Credit: 3 | Lecture: 0 | Lab: 3**

Study of crafts history, design, and techniques. Projects may include paper making, fibers, clay, printmaking, bookmaking, assemblage, and/or other media. May be repeated for credit. This course is studio-focused and does not qualify as an art history elective.

ARTS 4310 Advanced Sculpture**Credit: 3 | Lecture: 0 | Lab: 6**

Allows students to develop advanced processes in sculpture. Topics may vary (Lost-Wax Bronze Foundry, Public Sculpture, etc.). May be repeated for credit.

Prerequisites: ARTS 3310

ARTS 4311 Process Sculpture**Credit: 3 | Lecture: 0 | Lab: 3**

Study of 3-Dimensional forms through wood and metal fabrication. May be repeated for credit.

Prerequisites: ARTS 3310

ARTS 4312 Art of Ancient Iraq and the Near East**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. The art, history, and culture of Ancient Iraq and the Near East. Topics include prehistoric art, state formation, ideology, and empire. (Cross-listed with HUMN 4312.)

ARTS 4315 Art of the Ancient Greek World**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. The art, history, and culture of the ancient Greek world from the Bronze Age through the Hellenistic period. Topics include appropriation, cultural heritage, and gender studies. (Cross-listed with HUMN 4315.)

ARTS 4320 Advanced Ceramics**Credit: 3 | Lecture: 0 | Lab: 3**

Emphasis on individual projects and personal growth through technique and concept. Focused investigation and application of ceramic materials, approaches, and processes including wheel-throwing, hand-building, mold making, glazing, and kiln firing. May be repeated for credit.

ARTS 4322 Roman Art**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. The art, history, and culture of the ancient Roman world from the foundation of Rome (753 B.C.E.) through Constantine (337 C.E.). An investigation of architecture, sculpture, painting and other arts, especially as they relate to the social and political developments of ancient Italy and the Mediterranean. (Cross-listed with HUMN 4322.)

ARTS 4331 Advanced Drawing**Credit: 3 | Lecture: 0 | Lab: 3**

This course encourages students to pursue individual approaches and explore drawing as an independent discipline. Through studio drawing practices and integration with the study of theory, students will develop a personal sense of imagery. May be repeated for credit with permission of instructor.

Prerequisites: ARTS 3331 or equivalent.

ARTS 4332 Advanced Life Drawing**Credit: 3 | Lecture: 0 | Lab: 3**

Advanced techniques of proportion and accuracy in drawing the human form. Students continue to work from live model in pencil, paste, and charcoal in both detailed and gesture drawings. Topics vary; may be repeated for credit with permission of instructor.

Prerequisites: ARTS 3331 or ARTS 3333

ARTS 4335 Advanced Painting**Credit: 3 | Lecture: 0 | Lab: 3**

This course encourages students to pursue individual approaches and explore painting as an independent discipline. Through studio painting practices and integration with the study of theory, students will develop a personal sense of imagery. May be repeated for credit.

Prerequisites: ARTS 3335

ARTS 4339 Silkscreen Printing**Credit: 3 | Lecture: 0 | Lab: 3**

Printmaking course focusing specifically on the technique of silkscreen. Students will learn various ways to create imagery with silkscreen, including the use of screen-filter stencils, hand-drawn stencils, and digital/photo-based stencils. May be repeated for credit.

Prerequisites: ARTS 1316 or ARTS 1325

ARTS 4340 Advanced Printmaking**Credit: 3 | Lecture: 0 | Lab: 6**

A continuing study of printmaking processes learned in ARTS 3340 or in ARTS 4339. This can include exploration in either linocut, woodcut, etching, silkscreen, monotype, lithography, or a combination. Students will be encouraged to develop conceptual ideas in addition to refining their skills.

Prerequisites: ARTS 3340, ARTS 4339, or equivalent.

ARTS 4341 Advanced Fibers**Credit: 3 | Lecture: 0 | Lab: 3**

Supervised projects in woven and non-woven techniques with emphasis on color and design. May be repeated for credit.

Prerequisites: ARTS 3341.

ARTS 4348 Information Design**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration and design of infographics from a variety of data, statistics, and informational sources. Course lectures include visual translation, visual problem-solving, and overviews of professional infographics. Topics vary.

Prerequisites: ARTS 2371 and ARTS 3360

ARTS 4350 Advanced Traditional Photography**Credit: 3 | Lecture: 0 | Lab: 6**

Further exploration of traditional photography as an artistic medium. Emphasis on craft, concept, and alternative print processes. Topics vary; may be repeated for credit.

Prerequisites: ARTS 3352 or equivalent with instructor approval.

ARTS 4351 Advanced Digital Photography**Credit: 3 | Lecture: 3 | Lab: 0**

Emphasis on Photoshop and post-camera processes. Collage work includes Digital Matte Painting and Advanced Photoshop Effects. Access to a DSLR camera required. Topics vary; may be repeated for credit.

Prerequisites: ARTS 2371 or permission of instructor.

ARTS 4352 Video Arts**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of various methods and processes of video production using non-linear editing equipment. Emphasizes concept development, experimentation, and artistic expression. A working knowledge of video cameras and basic editing skills is helpful.

Prerequisites: ARTS 2371

ARTS 4353 Portrait Photography**Credit: 3 | Lecture: 0 | Lab: 3**

Studio exploration of photographic portraiture. Investigation of natural and studio lighting, as well as poses, and digital retouching. Projects vary; may be repeated for credit with permission of instructor. Experience with a Digital Camera and manipulation practices required.

ARTS 4358 History and Theory of Graphic Design**Credit: 3 | Lecture: 3 | Lab: 0**

History of graphic design from the inception of written communication to postmodern design and digital revolution.

Prerequisites: ARTS 1303 or ARTS 1304 or permission of instructor.

ARTS 4363 Advertising Design**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of image techniques used in the field of advertising. Design projects requiring various computer techniques. Previously established design skills are required.

Prerequisites: ARTS 2371 and ARTS 3360 or permission of instructor.

ARTS 4364 Museum Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Introduces students to the theory and operations of fine arts museums, including strategies of display, collection management, accessions, and public relations. The course will include visits to local gallery and museum spaces. (Cross-listed with HUMN 4364.)

ARTS 4366 Propaganda and Persuasive Images**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Examines the theory and use of propagandistic and persuasive imagery with particular focus on the twentieth century. The propaganda of World War II will comprise a major unit, as well as a study of modern photo manipulation and advertising strategies.

ARTS 4368 Graphic Novel Design**Credit: 3 | Lecture: 3 | Lab: 0**

Write, create, and produce original graphic novels. Techniques include both on- and off-computer skills, scripting, character design, and motion studies. Professional examples will be discussed.

Prerequisites: ARTS 3333 and ARTS 3360 or similar with permission of instructor.

ARTS 4369 Digital Illustration**Credit: 3 | Lecture: 3 | Lab: 0**

Design projects using various techniques including Adobe software, typography, and photo-illustration. Assignments emphasize concept, creativity, communication, technical achievement, and presentation. Topics vary; may be repeated for credit.

Prerequisites: ARTS 3360 and ARTS 2371, or similar with permission of instructor.

ARTS 4374 Modern Art**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Modernity, modernism, fantasy, enigma in early 20th-century European and American art and architecture by such masters as Picasso, Matisse, Kandinsky, Mondrian, Duchamp, Dali, Magritte, Kahlo, Brancusi, Frank Lloyd Wright, Le Corbusier, and O'Keeffe.

ARTS 4377 Topics in Contemporary Art**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. Concentrated study in single topic pertaining to contemporary art (post-WW2 period). Topics vary; may be repeated for credit with permission of instructor.

ARTS 4384 Museum Education**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. An examination of museum pedagogy. Topics include tour techniques, public programming, museum-school services, object-based learning, and the development of educational materials. Includes lectures, field trips, and individual projects

ARTS 4389 Independent Study in Art**Credit: 3 | Lecture: 0 | Lab: 0**

Personal projects in Art. Enrollment requires a written proposal. Permission of instructor required. May be taken for 3 hours of credit.

ARTS 4390 Senior Seminar in Art**Credit: 3 | Lecture: 3 | Lab: 1**

Required capstone course for Arts majors. Prepares students for graduate and professional engagement from several theoretical and practical perspectives.

ARTS 4391 Selected Topics in Art**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific subtitle each time course is offered. Read topic description for more details. Topics vary; may be repeated for credit with permission of instructor.

ARTS 4392 Arts Internship**Credit: 3 | Lecture: 0 | Lab: 0**

Supervised on-site internship in art or design capacity. Permission of instructor required.

ASTR Astronomy and Space Science

ASTR 1103 Laboratory for Stars and Galaxies**Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory experiments and activities in stellar and galactic astronomy.

Corequisites: ASTR 1303

ASTR 1104 Laboratory for Solar System**Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory experiments and activities in observational and solar system astronomy.

Corequisites: ASTR 1304

ASTR 1303 Stars and Galaxies**Credit: 3 | Lecture: 3**

Part of a two-semester survey course in astronomy intended for both science and non-science majors. Properties of the sun and stars, stellar spectra, stellar formation, life and death of stars, formation of the elements, black holes, galaxies, expansion of the universe and cosmology. Laboratory experiments and activities in stellar and galactic astronomy.

ASTR 1304 Solar System**Credit: 3 | Lecture: 3**

Part of a two-semester survey course in astronomy intended for both science and non-science majors. History of astronomy, Copernican revolution, astronomical observation, physics of planetary motion, comparative study of planet surfaces and atmospheres, moons, asteroids, comets, planetary system formation and exoplanets.

ASTR 2377 Life and the Universe**Credit: 3 | Lecture: 3**

Origin of the Universe, origin and evolution of life and the possibilities for finding life on other planets, including the search for extra-terrestrial intelligence.

ASTR 3311 Stellar Astrophysics**Credit: 3 | Lecture: 3**

An introduction to topics in modern astrophysics. Celestial mechanics, atomic and stellar spectra, binary stars, stellar atmospheres, modeling stellar interiors, lives and deaths of stars, stellar remnants and black holes.

Prerequisites: PHYS 2126, PHYS 2326, MATH 2414

ASTR 4311 Universal Origins**Credit: 3 | Lecture: 3**

Origin of the universe, the Earth and life.

Prerequisites: CHEM 1311, CHEM 1312 and PHYS 1301, PHYS 1302 or PHYS 2325 and PHYS 2326.

ASTR 4312 Principles of Astrobiophysics**Credit: 3 | Lecture: 3**

Overview of the search for life in the universe, including origin and evolution of habitable planets in the solar system and beyond.

Prerequisites: CHEM 1311, CHEM 1312 and PHYS 1301, PHYS 1302 or PHYS 2325, PHYS 2326

ASTR 4391 Selected Topics in Space Science**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

BAPA Business and Public Administration

BAPA 1301 Business Principles**Credit: 3 | Lecture: 3**

Introduction to the role of business in modern society. Includes overview of business operations, analysis of the specialized fields within the business organization, and the development of a business vocabulary.

BAPA 3321 Logical Analysis**Credit: 3 | Lecture: 3**

Development of critical thinking skills based on an investigation of traditional approaches to correct and incorrect reasoning.

BAPA 4195 Co-operative Education in Business
Credit: 1 | Lecture: 1

Educational paid work assignment by a student in the field of his or her career interest and course of study. A technical report will be required at the end of the semester. Qualifies as a general or BUS elective.

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of the Director of Cooperative Education.

BAPA 4366 Entrepreneurship and Small Business Consulting
Credit: 3 | Lecture: 3

Application of classroom concepts, theories and principles from all business disciplines to active operating small businesses or new business ventures. This course will qualify as a management or marketing elective.

Prerequisites: ACCT 3331, FINC 3331, MGMT 3301 and MKTG 3301 or equivalents.

BAPA 4395 Co-operative Education in Business
Credit: 3 | Lecture: 3

Educational paid work assignment by a student in the field of his or her career interest and course of study. A technical report will be required at the end of the semester. Qualifies as a general or BUS elective.

Prerequisite: Approved Candidate Plan of Study, completed cooperative education file and approval of the Director of Cooperative Education.

BIOL Biology**BIOL 1106 Laboratory for Biology for Science Majors I**

Credit: 1 | Lecture: 0 | Lab: 3

Laboratory exercises in basic biochemistry, cell biology, cell metabolism and energetics, photosynthesis, genetics, evolution, taxonomy, bacteria and viruses. Credit may not be received for both BIOL 1106 and BIOL 1108.

Corequisites: BIOL 1306

BIOL 1107 Laboratory for Biology for Science Majors II

Credit: 1 | Lecture: 0 | Lab: 3

Laboratory exercises relating to fungi, protists, plants, plant function, animals, animal physiology and ecology. Credit may not be received for both BIOL 1107 and BIOL 1109.

Corequisites: BIOL 1307

BIOL 1108 Laboratory for Biology Non-Science Majors I

Credit: 1 | Lecture: 0 | Lab: 3

Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function and reproduction. Credit may not be received for both BIOL 1106 and BIOL 1108.

Corequisites: BIOL 1308

BIOL 1109 Laboratory for Biology Non-Science Majors II**Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity and physiology. Credit may not be received for both BIOL 1107 and BIOL 1109.

*Corequisites: BIOL 1309***BIOL 1306 Biology for Science Majors I****Credit: 3 | Lecture: 3 | Lab: 0**

A general biology course including biochemistry, cell biology, cell metabolism and energetics, photosynthesis, genetics, evolution, taxonomy, bacteria and viruses. Credit may not be received for both BIOL 1306 and BIOL 1308.

*Corequisites: BIOL 1106***BIOL 1307 Biology for Science Majors II****Credit: 3 | Lecture: 3 | Lab: 0**

A continuation of Biology for Science Majors I with emphasis on fungi, protists, plants, plant function, animals, animal physiology and ecology. Credit may not be received for both BIOL 1307 and BIOL 1309.

*Corequisites: BIOL 1107***BIOL 1308 Biology for Non-Science Majors I****Credit: 3 | Lecture: 3 | Lab: 0**

Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function and reproduction. Credit may not be received for both BIOL 1306 and BIOL 1308.

*Corequisites: BIOL 1108***BIOL 1309 Biology for Non-Science Majors II****Credit: 3 | Lecture: 3 | Lab: 0**

This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity and physiology. Credit may not be received for both BIOL 1307 and BIOL 1309.

*Corequisites: BIOL 1109***BIOL 2101 Laboratory for Anatomy and Physiology I****Credit: 1 | Lecture: 0 | Lab: 3**

Lab study of the structure and function of the integumentary, skeletal, muscular, nervous and endocrine systems. Not for Biology or Fitness & Performance majors; does not count toward any B.S. or B.A. degree specialization in Biology.

*Corequisites: BIOL 2301***BIOL 2102 Laboratory for Anatomy and Physiology II****Credit: 1 | Lecture: 0 | Lab: 3**

Lab study of the structure and function of the cardiovascular, respiratory, digestive, urinary and reproductive systems. Basic principles of genetics are included. Not for Biology or Fitness & Performance majors; does not count toward any B.S. or B.A. degree specialization in Biology.

*Corequisites: BIOL 2302***BIOL 2121 Laboratory for Microbiology for Science Majors****Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory exercises using culture of microorganisms grown on selected media.

*Prerequisites: BIOL 1306, BIOL 1307, CHEM 1311, CHEM 1312**Corequisites: BIOL 2321*

BIOL 2301 Anatomy & Physiology I**Credit: 3 | Lecture: 3 | Lab: 0**

Study of the structure and function of the integumentary, skeletal, muscular, nervous and endocrine systems. Not for Biology or Fitness & Performance majors; does not count toward any B.S. or B.A. degree specialization in Biology.

Corequisites: BIOL 2101

BIOL 2302 Anatomy & Physiology II**Credit: 3 | Lecture: 3 | Lab: 0**

Lab study of the structure and function of the cardiovascular, respiratory, digestive, urinary and reproductive systems. Basic principles of genetics are included. Not for Biology or Fitness & Performance majors; does not count toward any B.S. or B.A. degree specialization in Biology.

Prerequisites: BIOL 2301 and BIOL 2101

Corequisites: BIOL 2102

BIOL 2321 Microbiology for Science Majors**Credit: 3 | Lecture: 3 | Lab: 0**

Study of the morphology, physiology and taxonomy of representative groups of pathogenic and non-pathogenic microorganisms.

Prerequisites: BIOL 1306, BIOL 1307, CHEM 1311, CHEM 1312

Corequisites: BIOL 2121

BIOL 2428 Vertebrate Zoology**Credit: 4 | Lecture: 3 | Lab: 1**

Lecture and laboratory exercises on the structure, development, physiology and natural history of the vertebrate animals with emphasis on comparative evolution.

Prerequisites: BIOL 1306, BIOL 1307

BIOL 3113 Laboratory for Plant Anatomy**Credit: 1 | Lecture: 0 | Lab: 3**

Examination of plant structure and function by comparing differences in the major tissue types in each plant organ (leaf, root, stem and reproductive). Students will prepare tissue mounts of both nutrient sufficient and deficient plants to examine structural changes in the different tissues.

Corequisites: BIOL 3313

BIOL 3141 Laboratory for Molecular Genetics**Credit: 1 | Lab: 3**

Laboratory investigations using molecular genetics to demonstrate principles of transmission and population genetics.

Prerequisites: BIOL 1306 and 1307

Corequisites: BIOL 3341

BIOL 3173 Laboratory for Human Anatomy**Credit: 1 | Lecture: 0 | Lab: 3**

The structure of the human body will be studied using anatomical models, preserved tissue specimens and computer programs.

Prerequisites: BIOL 1306 and BIOL 1307

Corequisites: BIOL 3373

BIOL 3306 Development of the Sciences**Credit: 3 | Lecture: 3 | Lab: 0**

Concepts, techniques, practices and philosophy of science, illustrated with historical and contemporary examples. Biology majors may use only as an unrestricted elective.

BIOL 3307 Cell Biology**Credit: 3 | Lecture: 3**

Study of cell structure and function, including chemical components of cells, membrane transport, cell signaling, flow of genetic information, cell growth, and cell division. Experimental techniques used in understanding cell biology will be discussed along with the cellular basis of human diseases.

Prerequisites: BIOL 1306, BIOL 1307, CHEM 1311, CHEM 1312

BIOL 3311 Marine Biology**Credit: 3 | Lecture: 3**

Study of marine organisms and their environment. One or more weekend or weekday field trips and limited laboratory exercises are required.

Prerequisites: BIOL 1306, BIOL 1307

BIOL 3313 Plant Anatomy**Credit: 3 | Lecture: 3**

Structures, tissues and cells of vegetative and reproductive organs of land plants related to concepts of growth, differentiation and organization function and evolutionary history.

Prerequisites: BIOL 1306, BIOL 1307

Corequisites: BIOL 3113

BIOL 3316 Introduction to Herpetology**Credit: 3 | Lecture: 3**

This course is designed to give the student a basic understanding of the science of Herpetology including an overview of the characteristics of reptiles and amphibians; with special emphasis on snakes. Classes will include training on collection, handling and identification of local species with some off-campus field trips to local areas and zoos.

Prerequisites: BIOL 1306, BIOL 1307

BIOL 3333 Environmental Biology**Credit: 3 | Lecture: 3**

The impacts of pollution, anthropogenic activities and other stresses on ecosystem structure and function. Course designed for science majors.

BIOL 3334 Pathogenic and Public Health Microbiology**Credit: 3 | Lecture: 3**

Focuses on the causality of infectious diseases, modes of dissemination, laboratory diagnosis and prevention and control.

Prerequisites: BIOL 1306, BIOL 1307

BIOL 3335 Epidemiology**Credit: 3 | Lecture: 3**

A study of the causes and clinical methods of controlling disease in large populations.

Prerequisites: BIOL 1306, BIOL 1307

BIOL 3336 Neuropsychology Practicum**Credit: 3 | Lecture: 3**

Laboratory investigation of brain/behavior relationships in the rat. Readings from primary research literature, lab experiments and research reports.

Prerequisites: Permission of instructor (HSH) and BIOL faculty adviser.

BIOL 3341 Molecular Genetics**Credit: 3 | Lecture: 3**

Study of the molecular basis of genetics, including transmission genetics and population genetics. BIOL 3141 must be taken concurrently or following BIOL 3341.

Prerequisites: BIOL 1306, BIOL 1307

Corequisites: BIOL 3141

BIOL 3373 Human Anatomy**Credit: 3 | Lecture: 3**

Fundamentals of human anatomy emphasizing an organ systems approach to the study of the human body. Lecture and demonstration.

Prerequisites: BIOL 1306 and BIOL 1307

Corequisites: BIOL 3173

BIOL 4113 Laboratory for Biology of Fishes**Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory course on identification, anatomy, morphology and ecology of fish. Weekend or weekday field trips and collections required.

Corequisites: BIOL 4313

BIOL 4114 Laboratory for Freshwater Biology**Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory study of freshwater organisms and multiple weekends and/or weekday field trips to study sites off campus.

Corequisites: BIOL 4314

BIOL 4189 Independent Study in Biology**Credit: 1 | Lecture: 1 | Lab: 0**

Prerequisites: Approval of instructor, chair and associate dean.

BIOL 4191 Laboratory Topics in Biology**Credit: 1Lab: 3**

Identified by specific title each time laboratory is offered

BIOL 4195 Cooperative Education Work Term**Credit: 1 | Lecture: 1**

Educational paid work assignment by a student in the field of career interest and course of study. A technical report is required at the end of the semester. (Specific requirements are noted in the Cooperative Education catalog description.)

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

BIOL 4211 Laboratory for Ecology**Credit: 2Lab: 2**

Four laboratory hours per week. Conduct experiments on population growth, competition and predation to test theoretical models; construct life tables.

Prerequisites: BIOL 4311

BIOL 4225 Environmental Toxicology Laboratory**Credit: 2 | Lecture: 0 | Lab: 2**

Theory and practice in aquatic toxicity testing using EPA standard methods.

Prerequisites: BIOL 4325.

BIOL 4241 Laboratory for Physiology**Credit: 2Lab: 2**

Laboratory exercises demonstrating physiological processes.

Prerequisites: BIOL 4344 or BIOL 4345.

BIOL 4242 Laboratory for Biochemistry**Credit: 2 | Lecture: 0 | Lab: 2**

Laboratory exercises in Biochemistry.

Prerequisites: BIOL 4341.

BIOL 4252 Molecular Biology Laboratory**Credit: 2Lab: 2**

Laboratory methods and techniques in molecular biology.

Prerequisites: BIOL 3341.

BIOL 4253 Laboratory for Biotechnology**Credit: 2 | Lecture: 0 | Lab: 2**

Current methods used in biotechnological industry and research as applied to medical, biological, agricultural and environmental aspects. Students will learn modern techniques used in genetic engineering, DNA sequencing, gene cloning, etc.

Prerequisites: BIOL 3341

BIOL 4254 Laboratory for Eukaryotic Gene Expression**Credit: 2Lab: 2**

Practical training in current gene expression studies, including isolation, quantification and handling of RNA, cDNA synthesis, RT-PCR and quantitative PCR. Microarrays and RNAi techniques are also discussed.

Prerequisites: BIOL 3341.

BIOL 4278 Seminar in Biology**Credit: 2 | Lecture: 2**

Study of objectives, methods and culture of biological science. Literature surveys, presentations and research papers are required. Students should be in their last 12 hours of coursework.

BIOL 4289 Independent Study in Biology**Credit: 2 | Lecture: 2 | Lab: 0**

Prerequisites: Approval of instructor, chair and associate dean.

BIOL 4291 Laboratory Topics in Biology**Credit: 2 | Lecture: 0 | Lab: 2**

Identified by specific title each time laboratory is offered.

BIOL 4305 Ecology of the Amazon**Credit: 3 | Lecture: 3**

Study of the physical, chemical and ecological aspects of the Amazon flooded forest. Students completing course qualify for discounted optional ecology study trip to the Amazon flooded forest areas of Brazil.

BIOL 4311 Ecology**Credit: 3 | Lecture: 3**

Theoretical study of organisms, populations and communities related to their environments.

Prerequisites: BIOL 1306, BIOL 1307

BIOL 4313 Biology of Fishes**Credit: 3 | Lecture: 3**

Systematic study of freshwater and marine fishes, including evolution, ecology, life history and economics of important species.

Prerequisites: BIOL 1306, BIOL 1307

Corequisites: BIOL 4113

BIOL 4314 Freshwater Biology**Credit: 3 | Lecture: 3**

Study of the physical, chemical and biology nature of freshwater lakes, ponds, rivers and streams.

Prerequisites: BIOL 4311

Corequisites: BIOL 4114

BIOL 4315 Biology Practicum**Credit: 3 | Lecture: 3**

Practical experience at an off-campus facility, such as a laboratory, aquarium, park, wetlands center or Galveston Bay non-profit. Requires junior or senior standing, pre-acceptance interview, minimum of 10 hours of work per week and approval of instructor.

BIOL 4323 Field Biology**Credit: 3 | Lecture: 3**

Field methods for analysis of ecological systems. Field work is required.

Prerequisites: BIOL 1306, BIOL 1307

BIOL 4325 Environmental Toxicology**Credit: 3 | Lecture: 3**

Physiological and systemic effects of chemical pollutants on animals, with special emphasis on human health and disease.

Prerequisites: BIOL 1306, BIOL 1307 and CHEM 2323

BIOL 4327 Plant Identification**Credit: 3 | Lecture: 3**

Taxonomic study of herbaceous and woody plants of SE Texas.

Prerequisites: BIOL 1306 and BIOL 1307

BIOL 4332 Histology**Credit: 3 | Lecture: 3**

Study of microscopic structure of animal and human tissues, including theories of fixation and staining of clinical samples.

Prerequisites: BIOL 3373

BIOL 4334 Environmental Microbiology**Credit: 3 | Lecture: 3**

Study of activity and mechanisms of microbial contribution to global ecosystems, with emphasis on geochemical cycling, bioremediation, wastewater treatment, metagenomics and independent investigations.

Prerequisites: BIOL 2321 and BIOL 2121

BIOL 4335 Forensic Biology**Credit: 3 | Lecture: 3**

Theory and techniques used in biological investigations of crimes, including toxicological, genetic and DNA analysis.

Prerequisites: BIOL 3341, BIOL 4341

BIOL 4341 Biochemistry I**Credit: 3 | Lecture: 3**

Study of cellular biochemical components and metabolism.

Prerequisites: BIOL 1306, BIOL 1307 and CHEM 2323

BIOL 4342 Biochemistry II**Credit: 3 | Lecture: 3**

Regulation and control of intermediary metabolism. Introduction to biochemical genetics.

Prerequisites: BIOL 4341.

BIOL 4343 Plant Physiology**Credit: 3 | Lecture: 3**

Metabolic and physiological processes involved in plant growth.

Prerequisites: BIOL 1306, BIOL 1307.

BIOL 4344 Comparative Animal Physiology**Credit: 3 | Lecture: 3**

Survey of bodily functions in both vertebrates and invertebrates. Emphasis will be on the use of the comparative approach in understanding how animals physiologically respond to and adapt to environmental challenges.

Prerequisites: BIOL 1306, BIOL 1307.

BIOL 4345 Human Physiology**Credit: 3 | Lecture: 3**

This course will introduce basic and advanced principles of human physiology. The study of physiology will be presented using an integrated systems approach. Lectures on topics ranging from physiology of the nervous system to human reproduction will be presented.

Prerequisites: BIOL 1306, BIOL 1307.

BIOL 4346 Pathophysiology**Credit: 3 | Lecture: 3**

This course will study the abnormal physiology characteristic of diseases in humans. A physiological systems approach will be taken.

Prerequisites: BIOL 4345.

BIOL 4347 Cellular Physiology**Credit: 3 | Lecture: 3**

Cell structure and function; emphasis on cytological, biochemical, genetical and developmental perspectives.

Prerequisites: BIOL 4341

BIOL 4348 Developmental Biology**Credit: 3 | Lecture: 3**

Embryology, tissue differentiation, cell determination and pattern formation at both descriptive and molecular level. Emphasis on animal systems with additional examples from plants and protists.

Prerequisites: BIOL 3341 and either BIOL 4347 or BIOL 3307

BIOL 4349 Plant Development**Credit: 3 | Lecture: 3**

Study of the developmental processes involved in seed germination, tissue differentiation, vegetative growth and transitioning to reproduction.

Prerequisites: BIOL 1306, BIOL 1307

BIOL 4351 Molecular Biology**Credit: 3 | Lecture: 3**

Study of how the cell functions at the molecular level, structures of the genome in prokaryotes and eukaryotes, and basic elements involved in the regulation of gene expression.

Prerequisites: BIOL 3341 or BIOL 4341

BIOL 4354 Introduction to Bioinformatics**Credit: 3 | Lecture: 3**

Experimental sources of biological data, databases and internet tools.

Prerequisites: BIOL 3341

BIOL 4355 Tissue Culture**Credit: 3 | Lecture: 3**

Students will learn how to manipulate cells in culture and develop laboratory skills in DNA transfection, gene expression, Luciferase assays and western blots.

Prerequisites: BIOL 3341

BIOL 4361 Immunology**Credit: 3 | Lecture: 3**

Basic theory of humoral and cellular immune mechanisms, structure and function of antibodies, cellular and physiological consequences of immunological responses.

Prerequisites: BIOL 2321 and either BIOL 3341 or BIOL 4341

BIOL 4371 Cancer Biology**Credit: 3 | Lecture: 3**

Cancer, genetics and heredity: prevention, detection and treatment of cancer.

Prerequisites: BIOL 3341 or BIOL 4351 or equivalent

BIOL 4389 Independent Study in Biology**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean.

BIOL 4391 Selected Topics in the Biological Sciences**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

BSCI Behavioral Sciences**BSCI 4389 Independent Study in Behavioral Sciences****Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required.

BSCI 4391 Selected Topics in Behavioral Sciences**Credit: 3 | Lecture: 3 | Lab: 1**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

CENG Computer Engineering**CENG 2112 Laboratory for Digital Circuits****Credit: 1Lab: 3**

Laboratory experiments using digital logic and small-scale integrated circuits.

Corequisites: CENG 2312

CENG 2312 Digital Circuits**Credit: 3 | Lecture: 3**

Applications of point set theory and Boolean Algebra to the analysis and design of asynchronous and synchronous digital circuits.

Prerequisites: MATH 2414, PHYS 2326, PHYS 2126

Corequisites: CENG 2112

CENG 2371 Microcontroller Programming**Credit: 3 | Lecture: 3**

Microcontroller, assembly language programming and embedded system applications.

Prerequisites: CSCI 1320 or equivalent.

CENG 3113 Laboratory for Linear Circuits**Credit: 1Lab: 3**

Laboratory experiments demonstrating AC/DC circuits. Experiments using lumped constants and integrated circuits will be stressed.

Corequisites: CENG 3313

CENG 3114 Laboratory for Advanced Linear Circuits**Credit: 1 | Lecture: 0 | Lab: 3**

Experiments emphasizing the design and analysis of linear lumped-constant circuits.

Corequisites: CENG 3314

CENG 3116 Laboratory for Electronics**Credit: 1 | Lab: 3**

The course consists of experimental laboratory projects that explore the design, construction, and debugging of basic electronic circuits. Projects involve EDA-tool based simulation and hands-on experiments, investigate the performance characteristics of diodes, transistors, JFETs, and op-amps including the construction of differential amplifier, summing amplifier, full wave rectifier, and common emitter amplifier.

*Corequisites: CENG 3316***CENG 3131 Laboratory for Telecommunications and Networks****Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory experiments in digital and data communications.

*Corequisites: CENG 3331***CENG 3151 Laboratory for Computer Architecture****Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory experiments for Computer Architecture Design and Interfacing.

*Corequisites: CENG 3351***CENG 3264 Engineering Design and Project Management****Credit: 2 | Lecture: 1 | Lab: 2**

Introduction to engineering concepts including problem solving, the design process, engineering tools and topics in ethics. Laboratory instruction.

CENG 3313 Linear Circuits**Credit: 3 | Lecture: 3**

Basic electrical concepts; network theorems; circuit laws; resistance, capacitance, inductance, operational amplifiers, response of RC, RL and RLC circuits to initial conditions and constant forcing functions. Steady-state and transient analysis. Introduction to S-domain circuit analysis. Integration of computer applications using Multisim and MATLAB.

*Prerequisites: MATH 2320, MATH 2414, PHYS 2326, PHYS 2126**Corequisites: CENG 3113***CENG 3314 Advanced Linear Circuits****Credit: 3 | Lecture: 3**

Polyphase AC circuit analysis and design, network and passive and active analog filter design using MATLAB and Multisim, time and frequency domain analysis utilizing Fourier series and Fourier analysis techniques.

*Prerequisites: CENG 3113, CENG 3313**Corequisites: CENG 3114***CENG 3315 Introduction to Digital Signal Processing****Credit: 3 | Lecture: 3**

Sinusoids, spectrum representation, sampling and aliasing, FIR and IIR digital filters. Laboratory instruction.

Prerequisites: CSCI 1320, MATH 2413, MATH 2414, MATH 2305

CENG 3316 Electronics**Credit: 3 | Lecture: 3**

The course is a study of the physical behavior of electronic devices. Emphasis is on analysis and application of electronic circuits utilizing semiconductor diodes, operational amplifiers, BJT and FET transistors. EDA tools are used to reinforce the theory through electronic analysis simulations.

*Prerequisites: CENG 3313**Corequisites: CENG 3116***CENG 3331 Introduction to Telecommunications and Networks****Credit: 3 | Lecture: 3**

Introduction to data communications, error detecting/correcting codes, multiplexing, circuit and packet switching and local area networks.

*Prerequisites: CENG 2312**Corequisites: CENG 3131***CENG 3351 Computer Architecture****Credit: 3 | Lecture: 3**

Performance analysis of computer systems, representing data and instructions, instruction set architecture, datapath and controller design, pipelining, superscalar architectures, memory components such as cache, main memory and virtual memory, multiprocessors.

*Prerequisites: CENG 2312, CENG 2371 or CSCI 2331.**Corequisites: CENG 3151***CENG 4113 Laboratory for Microprocessor Interfacing****Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory experiments interfacing the Intel microcomputer to peripherals, memory, and other devices.

*Corequisites: CENG 4313***CENG 4179 Internship in Computer Engineering****Credit: 1 | Lecture: 1**

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

*Prerequisites: 15 hours of upper-level credit; approval by program chair and associate dean.***CENG 4189 Independent Study in Computer Engineering****Credit: 1 | Lecture: 1***Prerequisites: Approval of instructor, chair and associate dean.***CENG 4195 Cooperative Education Work Term****Credit: 1 | Lecture: 1**

Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)

*Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.***CENG 4265 Senior Project****Credit: 2 | Lecture: 1 | Lab: 2**

Project course requiring each student to complete a project approved by the instructor. The student must submit a written final report and give an oral presentation to faculty and students. Laboratory instruction.

Prerequisites: CENG 3264 and CENG 4313 or CENG 4354.

CENG 4266 Senior Project**Credit: 2 | Lecture: 1 | Lab: 2**

Project course requiring each student to complete a project approved by the instructor. The student must submit a written final report and give an oral presentation to faculty and students. Laboratory instruction.

Prerequisites: CENG 3264 and CENG 4313 or CENG 4354

CENG 4279 Internship in Computer Engineering**Credit: 2 | Lecture: 2**

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: 15 hours of upper-level credit; approval by program chair and associate dean.

CENG 4289 Independent Study in Computer Engineering**Credit: 2 | Lecture: 2**

Prerequisites: Approval of instructor, chair and associate dean.

CENG 4313 Microprocessor Interfacing**Credit: 3 | Lecture: 3**

Techniques for interfacing microcomputers to peripherals, memory and other devices.

Prerequisites: CENG 3351, CENG 2371

Corequisites: CENG 4113

CENG 4331 Analysis and Design of Linear Systems**Credit: 3 | Lecture: 3 | Lab: 0**

Continuous and discrete time systems. Fourier, Laplace and z-transforms and transfer functions. Introduction to digital signal processing and digital filter design using conventional and convolutional techniques, applications from communications and control theory. Computer solutions using MATLAB.

Prerequisites: CENG 3313.

CENG 4351 Introduction to Robotics**Credit: 3 | Lecture: 3**

The course introduces the use of various robotic systems and the techniques necessary to design and develop hardware components and software applications using robotic operating systems.

Prerequisites: CENG 2371

CENG 4354 Digital System Design**Credit: 3 | Lecture: 3**

Combinational and sequential circuit design of digital systems using a hardware description language. Laboratory instruction.

Prerequisites: CENG 2312 or equivalent.

CENG 4362 Digital Control Design**Credit: 3 | Lecture: 3**

Analysis and design of digital control systems with applications critical systems.

Prerequisites: CENG 4331

CENG 4379 Internship in Computer Engineering**Credit: 3 | Lecture: 3**

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: 15 hours of upper-level credit; approval by program chair and associate dean.

CENG 4389 Independent Study in Computer Engineering**Credit: 3 | Lecture: 3***Prerequisites: Approval of instructor, chair and associate dean.***CENG 4391 Selected Topics in Computer Engineering****Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

CHEM Chemistry

CHEM 1105 Laboratory for Introductory Chemistry I**Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory for introductory chemistry that may include topics in inorganic, organic, biochemistry, food/physiological chemistry, forensic and environmental/ consumer chemistry. Credit may not be received for both CHEM 1105 and CHEM 1111.

*Corequisites: CHEM 1305***CHEM 1111 Laboratory for General Chemistry I****Credit: 1 | Lecture: 0 | Lab: 3**

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. Credit may not be received for both CHEM 1105 and CHEM 1111.

*Corequisites: CHEM 1311***CHEM 1112 Laboratory for General Chemistry II****Credit: 1 | Lecture: 0 | Lab: 3**

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.

*Corequisites: CHEM 1312***CHEM 1275 Survey of Forensic Chemistry****Credit: 2 | Lecture: 0 | Lab: 2**

This course will survey current methods in Forensic Science (especially chemistry) by examining real cases.

CHEM 1305 Introductory Chemistry I**Credit: 3 | Lecture: 3**

A survey course introducing chemistry, including topics in inorganic, organic, biochemistry, food/physiological chemistry, forensic and environmental/ consumer chemistry. Designed for non-science majors. Credit may not be received for both CHEM 1305 and CHEM 1311.

*Corequisites: CHEM1105***CHEM 1311 General Chemistry I****Credit: 3 | Lecture: 3 | Lab: 0**

Fundamental principles of Chemistry for majors in sciences, health sciences and engineering; topics include inorganic, organic, biochemistry, chemical reactions, states of matter and properties, chemical bonding, structure and descriptive chemistry. Credit may not be received for both CHEM 1305 and CHEM 1311.

Corequisites: CHEM 1111

CHEM 1312 General Chemistry II**Credit: 3 | Lecture: 3**

Chemical equilibrium; phase diagrams and spectrometry; acid-base concepts; thermodynamics; kinetics; electrochemistry; nuclear chemistry; an introduction to organic chemistry and descriptive inorganic chemistry.

*Prerequisites: CHEM 1311**Corequisites: CHEM 1112***CHEM 1372 Diet and Nutrition Chemistry****Credit: 3 | Lecture: 3**

This is a survey course designed for non-science and allied health students. It includes the effects of nutrients on health and the role of diet in prevention or treatment of chronic diseases.

CHEM 2101 Laboratory for Analytical Chemistry I**Credit: 1 | Lecture: 0 | Lab: 3**

This course provides hands-on training on analysis, sampling, statistical treatment and basic skills in analytical chemistry.

*Prerequisites: CHEM 1311, CHEM 1312**Corequisites: CHEM 2301***CHEM 2102 Laboratory for Analytical Chemistry II****Credit: 1 | Lecture: 0 | Lab: 3**

This course provides hands-on experience in modern instrumental techniques in analytical chemistry. Includes UV-vis absorption, IR vibrational spectroscopy, gas chromatography (GC), high performance liquid chromatography (HPLC) and NMR etc.

*Prerequisites: CHEM 1311, CHEM 1312**Corequisites: CHEM 2302***CHEM 2123 Laboratory for Organic Chemistry I****Credit: 1 | Lecture: 0 | Lab: 3**

Basic techniques and procedures in isolation, purification and characterization of organic compounds and simple reactions used in the organic chemistry lab.

*Prerequisites: CHEM 1311, CHEM 1312**Corequisites: CHEM 2323***CHEM 2125 Laboratory for Organic Chemistry II****Credit: 1 | Lecture: 0 | Lab: 3**

Extension of CHEM 2123; building from basic procedures and lab techniques to a more advanced level.

*Prerequisites: CHEM 1311, CHEM 2123**Corequisites: CHEM 2325***CHEM 2301 Analytical Chemistry I****Credit: 3 | Lecture: 3**

An introduction to the theory of analytical chemistry; different approaches to analysis, sampling, statistical treatment and basic principles in analytical chemistry.

*Prerequisites: CHEM 1311, CHEM 1312**Corequisites: CHEM 2101*

CHEM 2302 Analytical Chemistry II**Credit: 3 | Lecture: 3**

An introduction to instrumental techniques, providing an introductory survey of modern instrumental techniques in analytical chemistry. Includes electrochemical, spectroscopic and chromatographic methods for the determination of atomic and molecular species. Specific topics in spectroscopy to be considered are UV-vis absorption, IR vibrational spectroscopy. Topics in chromatography include gas chromatography (GC), high performance liquid chromatography (HPLC).

*Prerequisites: CHEM 1311, CHEM 1312**Corequisites: CHEM 2101***CHEM 2323 Organic Chemistry I****Credit: 3 | Lecture: 3**

Study of properties and behavior of hydrocarbon compounds and their derivatives. Designed for students in science or pre-professional programs.

*Prerequisites: CHEM 1311, CHEM 1312**Corequisites: CHEM 2123***CHEM 2325 Organic Chemistry II****Credit: 3 | Lecture: 3**

Continuation of properties and behavior of hydrocarbon compounds and their derivatives. Designed for students in science or pre-professional programs.

*Prerequisites: CHEM 1311, CHEM 2323**Corequisites: CHEM 2125***CHEM 2377 Life and the Universe****Credit: 3 | Lecture: 3**

Origin of the Universe, origin and evolution of life and the possibilities for finding life on other planets, including the search for extra-terrestrial intelligence.

CHEM 3310 Advanced Chemical Calculations**Credit: 3 | Lecture: 3 | Lab: 0**

Prepares chemistry and biology students for math in Physical Chemistry and Biochemistry, using examples geared to these subjects.

*Prerequisites: CHEM 1311 & CHEM 1312, MATH 2413 & MATH 2414, PHYS 2325 or PHYS 1301 & PHYS 1302.***CHEM 3315 Survey of Instrumental Analysis****Credit: 3 | Lecture: 2 | Lab: 2**

The emphasis of this course is on practical aspects of chemical analysis using instrumental techniques. Lab exercises will include UV-Vis spectrophotometry, fluorescence spectroscopy, IR spectroscopy, GC-MS, LC-MS, and NMR spectroscopy. Biomedical, environmental, and industrial applications will be considered. Cannot count toward a Chemistry major.

*Prerequisites: CHEM 2323, CHEM 2123, CHEM 2325, CHEM 2125.***CHEM 3320 Survey of Physical Chemistry****Credit: 3 | Lecture: 3**

Appropriate for students pursuing the BA in Chemistry or a BS in Environmental Science. An overview of physical chemistry, thermodynamics, molecular structure, spectroscopy.

*Prerequisites: CHEM 1311, CHEM 1312 and MATH 2413 and PHYS 1301, PHYS 1302.***CHEM 3333 Environmental Chemistry****Credit: 3 | Lecture: 3**

Chemical processes and reactions related to chemical pollution problems and their control in the atmosphere, soils and waters.

Prerequisites: CHEM 1311, CHEM 1312 or equivalent.

CHEM 3335 Fundamentals of Inorganic Chemistry**Credit: 3 | Lecture: 3**

Basic knowledge of inorganic compounds such as chemical bonding, structures and reactivity of each group element in inorganic chemistry. The chemistry of elements and their compounds in each class and the types of reactions will be highlighted. These also include boron chemistry, main group, transition metals, and crystal chemistry.

Prerequisites: CHEM 1311, CHEM 1312.

CHEM 4115 Chemistry Practicum**Credit: 1 | Lecture: 1**

Practical training in teaching an undergraduate chemistry lab, assisting a teaching assistant. Requires pre-acceptance interview, minimum of 6 hours of work per week and approval of instructor.

CHEM 4189 Independent Study in Chemistry**Credit: 1 | Lecture: 1**

Prerequisites: Approval of instructor, chair and associate dean.

CHEM 4195 Cooperative Education Work Term**Credit: 1 | Lecture: 1**

Educational paid work assignment by a student in the field of career interest and course of study. A technical report is required at the end of the semester. (Specific requirements are noted in the Cooperative Education catalog description.)

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

CHEM 4222 Laboratory for Physical Chemistry**Credit: 2 | Lecture: 0 | Lab: 4**

Laboratory principles and practice in physical chemistry. Six laboratory hours each week.

CHEM 4321 may be taken concurrently.

Prerequisites: CHEM 4321

CHEM 4235 Advanced Lab for Inorganic Chemistry**Credit: 2 | Lecture: 0 | Lab: 4**

Laboratory principles and basic manipulation skills used during the preparation and characterization of inorganic compounds.

Prerequisites: CHEM 1311, CHEM 1312 and CHEM 2323

CHEM 4242 Laboratory for Biochemistry**Credit: 2 | Lecture: 1 | Lab: 3**

Laboratory principles and practices in cellular biochemistry. One hour of lecture and 3 hours of laboratory per week.

Prerequisites: CHEM 4341 or corequisite

CHEM 4251 Laboratory for Environmental Analysis**Credit: 2 | Lecture: 1 | Lab: 3**

Experimental methods for sampling and analysis of environmental samples using modern instruments. Hands-on laboratory and field experiments. One hour of lecture and 3 hours of laboratory per week.

Prerequisites: CHEM 3333 or corequisite

CHEM 4268 Lab for Instrumental Analysis**Credit: 2 | Lecture: 0 | Lab: 4**

Laboratory exercises in instrumental analysis.

Prerequisites: CHEM 4373, CHEM 4274

Corequisites: CHEM 4367

CHEM 4274 Laboratory for Quantitative Chemical Analysis**Credit: 2 | Lecture: 0 | Lab: 4**

Laboratory exercises in quantitative chemical analysis.

Prerequisites: CHEM 2123, CHEM 2125, CHEM 2323, CHEM 2325

Corequisites: CHEM 4373

CHEM 4311 Chemical Origins**Credit: 3 | Lecture: 3**

Origin of the universe and the chemical elements, pre-biotic chemistry and the origin of life.

Prerequisites: CHEM 1311, CHEM 1312 and PHYS 1301, PHYS 1302 or PHYS 2325 and PHYS 2326.

CHEM 4312 Principles of Astrobiochemistry**Credit: 3 | Lecture: 3**

Overview of the search for life in the universe, including chemical signatures of life on other planets.

Prerequisites: CHEM 1311, CHEM 1312 and PHYS 1301, PHYS 1302 or PHYS 2325, PHYS 2326

CHEM 4315 Handedness in Science**Credit: 3 | Lecture: 3**

Suitable for chemists, physicist and biologist (especially pre-med). Handedness (chirality) in chemistry, biology, pharmaceuticals and medicine. Origin of chirality: Is it a feature of fundamental physics? Use of chirality to detect life on other planets.

Prerequisites: CHEM 1311, CHEM 1312 and PHYS 1301, PHYS 1302 or PHYS 2325, PHYS 2326

CHEM 4321 Physical Chemistry I**Credit: 3 | Lecture: 3**

Physical Chemistry (PC) I is not a prerequisite for Physical Chemistry II. PCI covers thermodynamics and kinetics. PCII covers quantum mechanics and spectroscopy. CHEM 4321 and CHEM 4322 may be taken in any order
Prerequisites: CHEM 1311, CHEM 1312, MATH 2413, MATH 2414, PHYS 2325 and PHYS 2326 and CHEM 4310.

CHEM 4322 Physical Chemistry II**Credit: 3 | Lecture: 3**

Physical Chemistry (PC) I is not a prerequisite for Physical Chemistry II. PCI covers thermodynamics and kinetics. PCII covers quantum mechanics and spectroscopy. CHEM 4321 and CHEM 4322 may be taken in any order.
Prerequisites: CHEM 1311, CHEM 1312, MATH 2413, MATH 2414 and PHYS 2325, PHYS 2326 and CHEM 4310.

CHEM 4328 Introduction to Medicinal Chemistry**Credit: 3 | Lecture: 3**

Overview of key biological and biochemical concepts and the general tactics and strategies involved in developing an effective drug.

Prerequisites: CHEM 2323, CHEM 2325

CHEM 4335 Inorganic Chemistry**Credit: 3 | Lecture: 3**

Concepts and systems of inorganic chemistry; atomic structure, molecular structure and bonding, ionic crystals, solid state defects and coordination compounds.

Prerequisites: CHEM 1311, CHEM 1312 and CHEM 2323

CHEM 4341 Biochemistry I**Credit: 3 | Lecture: 3**

Study of cellular biochemical components and metabolism.

Prerequisites: CHEM 2323, CHEM 4310 strongly recommended.

CHEM 4342 Biochemistry II**Credit: 3 | Lecture: 3**

Regulation and control of intermediary metabolism. Introduction to biochemical genetics.

Prerequisites: CHEM 4341.

CHEM 4352 Water Chemistry and Water Pollution**Credit: 3 | Lecture: 3**

Study of chemical equilibria in natural waters, water quality parameters, water sampling, important water pollutants and their fate.

Prerequisites: CHEM 1311, CHEM 1312 and CHEM 2323.

CHEM 4355 Environmental Sampling and Monitoring**Credit: 3 | Lecture: 3**

Principles and techniques of environmental sampling for air, water, soil and hazardous wastes. EPA standard methods for environmental analysis using biological, chemical and instrumental techniques.

Prerequisites: STAT 3308.

CHEM 4356 Soil & Groundwater Remediation**Credit: 3 | Lecture: 3**

Chemical, biological, geological principles and applications of various remediation techniques commonly used to clean up contaminated soils and groundwater.

Prerequisites: CHEM 3333.

CHEM 4357 Introduction to Biofuel**Credit: 3 | Lecture: 3**

This course is an overview of biofuel production with fundamental concepts in biofuel production, renewable feedstocks, thermochemical and biochemical conversions of biomass to biofuel, environmental impacts, economics and life-cycle analysis; value-added processing of biofuel residues and selected case studies.

Prerequisites: CHEM 2323 and CHEM 2325

CHEM 4358 Industrial Chemistry: Process and Environment**Credit: 3 | Lecture: 3**

This course will survey a variety of industrially-important processes which are based on naturally occurring or petroleum derived organic materials. As an additional component of the course, the relevance and impact of various regulations of the Environmental Protection Agency will be explored.

Prerequisites: CHEM 2323 and CHEM 2325

CHEM 4359 Drug Discovery and Design**Credit: 3 | Lecture: 3**

Advanced topics in medicinal and pharmaceutical chemistry using a combination of traditional lectures, “round-table” discussions of journal articles, and hands-on exercises in the relevant computational techniques.

Prerequisites: CHEM 2323 and CHEM 2325

CHEM 4360 Bio-organic and Medicinal Chemistry**Credit: 3 | Lecture: 3**

Survey of the fields of biological chemistry in which organic chemistry plays a significant role. Topics such as enzymatic and enzyme-like catalysis, protein/enzyme structure-function relationships, enzyme cofactor chemistry and biochemistry, nucleic acid chemistry and biochemistry, bioconjugates, bioprobes and molecular recognition will be discussed.

Prerequisites: CHEM 2323, CHEM 2325

CHEM 4363 Forensic Chemistry**Credit: 3 | Lecture: 3**

Provides students training in drug chemistry, chemistry of addiction, arson investigation, chemistry of explosives, poisons, estimating the time of death.

Prerequisites: CHEM 1311, CHEM 1312 or equivalent.

CHEM 4365 Introduction to Polymer Chemistry**Credit: 3 | Lecture: 3**

Introduction to chemistry, structure and properties of polymers.

Prerequisites: CHEM 1311 and CHEM 1312

CHEM 4367 Instrumental Analysis**Credit: 3 | Lecture: 3**

The goal of the two-semester sequence of analytical chemistry is to understand the underlying principles and limitations of analytical chemistry methods and learn how to make reliable measurements. This course is dedicated to instrumental methods, such as spectroscopy, chromatography, electrophoresis, mass spectrometry, electrochemical techniques, and materials characterization techniques.

Prerequisites: CHEM 4274 and CHEM 4373 or instructor's permission.

Corequisites: CHEM 4268

CHEM 4368 Advanced Organic Chemistry**Credit: 3 | Lecture: 3**

Advanced mechanistic study of the relationship between structure and reactivity in organic chemistry.

Prerequisites: CHEM 2323, CHEM 2325 or equivalent.

CHEM 4370 Industrial Chemistry: Process and Environment**Credit: 3 | Lecture: 3**

Survey of industrially-important processes which are based on naturally-occurring or petroleum-derived organic materials. A component of the course involves Environmental Protection, such as the Clean Air and the Toxic Substances Control.

Prerequisites: CHEM 2323, CHEM 2325

CHEM 4371 Advanced Spectroscopic Analysis**Credit: 3 | Lecture: 3**

Designed for students seeking advanced analytical studies through practical spectra analysis.

Prerequisites: CHEM 2323, CHEM 2325

CHEM 4372 Undergraduate Research I and Seminar**Credit: 3 | Lecture: 3**

The selection, study and formal oral and written presentation of topics from the chemical literature and/or original research findings.

Prerequisites: Approval of instructor.

CHEM 4373 Quantitative Chemical Analysis**Credit: 3 | Lecture: 3**

The goal of the two-semester sequence of analytical chemistry is to understand the underlying principles and limitations of analytical chemistry methods and learn how to make reliable measurements. This course emphasizes relevant mathematical approaches, chemical equilibria, and “wet” methods of chemical analysis (volumetric and gravimetric techniques, titration, electrochemistry, and spectrophotometry).

Prerequisites: CHEM 2323, CHEM 2325

Corequisites: CHEM 4274

CHEM 4374 Surface Chemical Processing**Credit: 3 | Lecture: 3**

The course topics cover relevant surface chemical phenomena as encountered in environmental and chemical/industrial applications. The course material will discuss the fundamental surface chemical processes and the role of surface/interface properties in scientific and industrial applications as well as the principles of conventional and advanced surface analytical techniques.

Prerequisites: CHEM 1311, CHEM 1312

CHEM 4375 Petroleum Geology**Credit: 3 | Lecture: 3**

This course studies the topics of the "petroleum system", origin and migration of hydrocarbons, reservoirs, traps and seals, sedimentary basins and some of the most commonly used methods in exploration and development.

Prerequisites: GEOL 1303.

CHEM 4376 Introduction to Petroleum Chemistry**Credit: 3 | Lecture: 3**

This course provides a broad understanding of the composition, chemical/physical properties of crude oil and petroleum products as well as the relative unit operations in industrial process.

Prerequisites: CHEM 1311, CHEM 1312

CHEM 4379 Undergraduate Research II**Credit: 3 | Lecture: 3**

Hands-on research in the field of chemistry A written report and presentation will be required.

Prerequisites: CHEM 4372

CHEM 4389 Independent Study in Chemistry**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean.

CHEM 4391 Selected Topics in Chemistry**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

CINF Computer Information Systems

CINF 1370 Introduction to Computer Information Systems

Credit: 3 | Lecture: 3

A general overview of the computing field and its typical applications, information systems concepts and terminologies. Topics include hardware, software and telecommunication fundamentals, the internet, systems development methods and career opportunities. Hands-on experience using application software.

CINF 3311 Programming With Visual Basic

Credit: 3 | Lecture: 3

Programming with Visual Basic with emphasis on object-oriented programming and the users of integrated development environments. Data types, control structures, functions, subroutines, files, classes and controls. Development using the .Net framework. Laboratory instruction.

CINF 3321 Information Systems Theory and Practice

Credit: 3 | Lecture: 3

Introduction to the theory and practice of information systems. Development, application and management of IS. Hardware and software issues for IS. Ethical, social and security related issues of IS. IS environments. Laboratory instruction.

Prerequisites: CINF 1370 or approved equivalent course.

CINF 3331 Business Data Communications

Credit: 3 | Lecture: 3

Introduction to business data communications. WANs, LANs and internet concepts. A survey of data communications with emphasis on the impact of digital technology on the operation, management and economics of computer information systems.

Prerequisites: Junior or Senior standing.

CINF 3391 Topics in Computer Information Systems

Credit: 3 | Lecture: 3

Identified by specific title each time course is offered. Laboratory instruction.

CINF 4189 Independent Study in Computer Information Systems

Credit: 1 | Lecture: 1

Prerequisites: Approval of instructor, chair and associate dean.

CINF 4195 Cooperative Education Work Term

Credit: 1 | Lecture: 1

Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

CINF 4289 Independent Study in Computer Information Systems

Credit: 2 | Lecture: 2

Prerequisites: Approval of instructor, chair and associate dean.

CINF 4308 Topics in Computer Information Systems–Non–Majors**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered. Not to be taken by majors in computing program. Laboratory instruction.

CINF 4320 Web Application Development**Credit: 3 | Lecture: 3**

Survey of languages, tools and techniques for Web Application Development, HTML, XHTML, CSS, JavaScript, Dynamic HTML, Server-side web development using .Net Framework with ASP.Net and C#, Perl CGI programming with Perl, XML. Laboratory instruction.

Prerequisites: CSCI 2315

CINF 4321 Enterprise Resource Planning Systems**Credit: 3 | Lecture: 3**

The course is designed to provide an overview of Enterprise Resource Planning (ERP) systems, and the important role it plays in an organization. The course content will illustrate the concepts, fundamental principles, framework, technology context and the technological architecture and infrastructure of a typical ERP system. Hands-on labs using SAP coupled with lectures and case studies will prepare the students with knowledge and skills sought after by businesses. Laboratory instruction.

Prerequisites: CINF 3321 or approved equivalent course.

CINF 4323 Computer Security**Credit: 3 | Lecture: 3**

Introduction to encryption, decryption and cryptographical protocols; security components; security policies and mechanisms in computer applications, computer systems and networks; legal/ethical issues in computer security.

Laboratory instructions.

Prerequisites: CSCI 2331, CSCI 3352.

CINF 4324 Modern System Analysis and Design**Credit: 3 | Lecture: 3**

Key concepts and principles of system analysis and design within the context of information system development. Emphasis on the application of tools and techniques along with the role and responsibilities of the systems analyst as well as the systems project manager.

Prerequisites: CINF 3321.

CINF 4334 Electronic Commerce**Credit: 3 | Lecture: 3**

Key concepts and principles of e-commerce; importance of e-commerce in the global economy; technological elements of the infrastructure of e-commerce; business and social factors associated with the success or failure of e-commerce; critical thinking to strategize and plan technology-based solutions to achieve business goals.

Prerequisites: CINF 4320 or approval of instructor.

CINF 4364 Computer Systems Administration**Credit: 3 | Lecture: 3**

Administration of computers and their operating systems, both as stand-alone and in network topologies. Unix is used as an example. Laboratory instruction.

Prerequisites: CSCI 2315 or ITEC 3312 and senior standing.

CINF 4379 Internship in Computer Information Systems**Credit: 3 | Lecture: 3**

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: 15 hours of upper-level credit; approval by adviser and associate dean.

CINF 4381 Computer Forensics**Credit: 3 | Lecture: 3**

This course examines the various media and strategies of storing information. Students will learn different aspects of computer crime and ways in which to protect, uncover and understand digital evidence. Students will gain experience using hardware and software tools to perform investigations. Laboratory instruction.

Prerequisites: CSCI 1471 or CSCI 1370 or ITEC 2381

CINF 4388 Senior Project in Computer Information Systems**Credit: 3 | Lecture: 3**

May be taken only during the final semester before graduation. Registration is restricted to students with an approved Candidate Plan of Study. Students develop a significant computer application for a realistic project in CIS that emphasizes the entire software lifecycle. Professional behavior, ethics and teamwork will be developed. Students prepare written reports and give oral presentations. Laboratory instruction.

Prerequisites: CSCI 4333 and CINF 4324

CINF 4389 Independent Study in Computer Information Systems**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean.

CINF 4391 Selected Topics in Computer Information Systems**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered. Laboratory instruction.

COMM Communication

COMM 1307 Introduction to Mass Communication**Credit: 3 | Lecture: 3 | Lab: 0**

An introduction to mass media theory, convergence, media technology history and innovations, social media, and societal implications. Media literacy will be emphasized.

COMM 1315 Public Speaking**Credit: 3 | Lecture: 3 | Lab: 0**

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 their ability to effectively evaluate oral presentations.

COMM 3320 Principles of Public Relations**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of persuasive communication as it pertains in theory and practice to public relations, marketing and advertising practices.

COMM 3321 Media Writing**Credit: 3 | Lecture: 3 | Lab: 0**

Journalistic writing, including fact gathering, news and feature writing styles, publication relations, and freelance writing. If taken at a lower level, communication majors may replace this course with an upper-level communication elective with permission for adviser. Communication majors must pass with a grade of "C" or better.

COMM 3340 Environmental Communication**Credit: 3 | Lecture: 3 | Lab: 0**

In this course, students will learn the various means of communicating messages regarding environmental issues, whether these messages are created by organizations to advocate on behalf of the environment, to create perceptions of caring for the environment, or to define the environment.

COMM 3341 Storytelling and Oral Communication**Credit: 3 | Lecture: 3 | Lab: 0**

This course uses embodied learning to explore three core forms of the oral tradition: oral histories, autobiographical narratives, and personal advocacy narratives.

COMM 3350 Visual Communication**Credit: 3 | Lecture: 3 | Lab: 1**

Introduction to design elements and theory that are critical to creating media content to serve specific communication goals. Concepts covered include layout, color scheme, concept design, composition, balance, visual development, usability, interface design, and audience engagement.

Prerequisites: ARTS 2371

COMM 3351 Mass Media and Society**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of mediated communication and media effects with an advanced critical cultural approach to media and society topics, relative theories and effects. Research- and writing-intensive course.

COMM 3352 Media Law**Credit: 3 | Lecture: 3 | Lab: 0**

Legal issues as pertinent to the professional communicator.

COMM 3353 Alternative Media Marketing**Credit: 3 | Lecture: 3 | Lab: 0**

In-depth exploration of persuasive communication as it relates to alternative media marketing and integrated marketing communication campaigns that utilize persuasive communication, including marketing, advertising, and PR communication strategies.

Prerequisites: Junior or Senior level standing.

COMM 3354 Gathering Information**Credit: 3 | Lecture: 3 | Lab: 0**

Research techniques in which students identify and collect information from libraries, archives, databases, the internet and interviews. The gathered information is then used to write magazine articles, reports and strategic studies.

COMM 3355 Communication Ethics**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of a range of ethical principles and case studies with the ultimate goal of helping students work out their own professional standards and commit to them.

COMM 3356 Advertising Procedure**Credit: 3 | Lecture: 3 | Lab: 0**

Study of consumer advertising from several perspectives: historical forces, advertising agency operations, and successful campaigns. Students learn about targeting demographics, innovative advertising methods, and how to identify and collect information.

COMM 3357 Crisis Communication**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of strategic communication practices throughout the three stages of a crisis event. Special emphasis is placed on crisis planning, media relationships, image restoration, ethical responses, and organizational learning.

Prerequisites: COMM 3320 or permission of instructor.

COMM 3360 Web Design**Credit: 3 | Lecture: 3 | Lab: 1**

Fundamentals of Web design, including graphical editors, basic layouts, colors, and accessibility standards.

Prerequisites: ARTS 2371 or permission of instructor.

COMM 4061 Communication Portfolio**Credit: 0 | Lecture: 0 | Lab: 0**

A pass/fail exit requirement included as part of the degree plan's capstone requirement. Students showcase their best work, both textual and graphic, in an electronic portfolio.

Prerequisites: Must pass GSP test.

COMM 4301 Global Issues in Film**Credit: 3 | Lecture: 3 | Lab: 0**

Global issues in media are addressed using a critical/cultural studies approach. Focuses on global mediated issues (film, texts, news, internet, etc.), in order to foster an understanding of diversity and to teach global media literacy.

Prerequisites: Junior/Senior status

COMM 4322 Public Relations Writing**Credit: 3 | Lecture: 3 | Lab: 0**

Professional approach to crafting messages that build mutually beneficial relationships between organizations and their constituents. Includes press releases, public service announcements, newsletters, brochures, speeches, and social media.

Prerequisites: COMM 3320 and COMM 3321 or equivalent.

COMM 4323 Public Relations Campaigns**Credit: 3 | Lecture: 3 | Lab: 0**

This course is designed to teach you how to think like a public relations professional. To do so, the course emphasizes the preparation of problem-solving campaigns, programs, and projects. Students will implement the four-step public relations process in the form of the group and individual proposals. Students will be expected to apply skills in critical thinking, numeracy, writing, reading, research, and new technologies. (Cross-listed with DMST 5330.)

Prerequisites: COMM 3320 and/or COMM 4322, or permission of instructor

COMM 4350 3D Computer Modeling**Credit: 3 | Lecture: 0 | Lab: 3**

Introduction to 3D modeling techniques for animation, images, and 3D computer sculptures, including to build 3D models, modeling techniques used in 3D software applications. Texture mapping and lighting in a 3D environment.

Prerequisites: ARTS 2371 and ARTS 3360 or permission of instructor.

COMM 4351 3D Animation**Credit: 3 | Lecture: 0 | Lab: 3**

Fundamental principles of animation. Introduces students to 3D computer animation techniques including key framing, path animation, non-linear animation, and hierarchical animation. Covers story boarding and animation project planning.

Prerequisites: COMM 4350

COMM 4352 Photojournalism**Credit: 3 | Lecture: 0 | Lab: 3**

Exploration of photography as a form of journalistic storytelling. Includes study of technical and emotional aspects of photographs as well as techniques in Photoshop.

Prerequisites: ARTS 2371

COMM 4354 Video Production I**Credit: 3 | Lecture: 3 | Lab: 0**

This course is an introduction to the basics of video production, including camera work, capturing video and sound using DSLR and traditional video cameras, working with lights, fundamental story-telling and interview skills as well as basic non-linear editing skills using either Premiere Pro or Final Cut X. A portion of the course will also be dedicated to the basics of Studio-Based Video Production. (Cross-listed with DMST 5534.)

COMM 4355 Narrative Video Production**Credit: 3 | Lecture: 3 | Lab: 0**

This class focuses on the creation of short narrative. Hollywood-inspired videos. It takes students all the way from the first idea to writing a script, shooting & editing to the final distribution of the film. (Cross-listed with DMST 5535.)

COMM 4357 Documentary Video Production**Credit: 3 | Lecture: 3 | Lab: 0**

This class teaches the basic of documentary video production, including the proper use of production equipment, developing a story line, and developing interview skills and research methods. (Cross-listed with DMST 5537.)

COMM 4358 Publication Design**Credit: 3 | Lecture: 3 | Lab: 1**

Coverage of theory and technology related to creation of graphic products for offset printing. Includes examination of Photoshop, Illustrator, InDesign, and other software applications.

Prerequisites: ARTS 2371

COMM 4359 Studio-Based Video Production**Credit: 3 | Lecture: 3 | Lab: 0**

In this class, students are introduced to multi-camera studio set-ups. Students will rotate through all relevant positions of a typical production studio, including camera, sound, directing, etc.

COMM 4379 Communication Internship**Credit: 3 | Lecture: 3 | Lab: 0**

A supervised on-site internship in a communication capacity.

Prerequisites: Must pass GSP test.

COMM 4389 Independent Study in Communication**Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required. May be taken for 3 hours of credit. For 1 hour of Independent Study credit, students should enroll in COMM 4189 Independent Study in Communications.

COMM 4391 Selected Topics in Communication**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by a specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

COMM 4655 Media Production**Credit: 6 | Lecture: 0 | Lab: 6**

Laboratory course covering journalistic writing, fact gathering, photography, videography, graphic design, social media, and advertising. Students will produce the student newspaper, The Signal.

Prerequisites: Must pass GSP test, COMM 3321.

COUN Counseling

COUN 1301 Addictions Counseling**Credit: 3 | Lecture: 3 | Lab: 0**

A review of the research, theory, and history of addictions counseling including requirements for and scope of licensure and ethical guidelines as a chemical dependency counselor.

COUN 1302 Pharmacology of Addictions**Credit: 3 | Lecture: 3 | Lab: 0**

Explores the different types of substances abused and the psychological and physiological consequences including tolerance, withdrawal, and drug interaction.

COUN 1304 Screening, Assessment, Diagnosis, and Referral**Credit: 3 | Lecture: 3 | Lab: 0**

Explores the DSM diagnostic criteria for addictions, the different screening and assessments available for addictions and referral for other services. Use of a systematic biopsychosocial assessment and placement within the continuum of care will also be explored. Further dual diagnosis and its implications will be covered.

COUN 2301 Treatment Planning for Relapse Prevention**Credit: 3 | Lecture: 3 | Lab: 0**

Explores the different models and methods of individualized treatment planning and relapse prevention including interdisciplinary medication assisted treatment, readiness for treatment, and ethical guidelines for treatment. Course will focus on involving the client in assessment of current issues and use of data driven methods for measuring treatment outcome. Content will also include methods to involve family when possible and build sober support networks such as Alcoholics and Narcotics Anonymous.

COUN 2302 Addictions Counseling Theories**Credit: 3 | Lecture: 3 | Lab: 0**

Study of the most commonly used theoretical approaches to conceptualization and treatment of addictions.

COUN 2303 Addictions Intervention and Prevention**Credit: 3 | Lecture: 3 | Lab: 0**

Investigates addiction professional's role in prevention and intervention including strategies and interdisciplinary approaches available to impede the illegal use of alcohol, tobacco and other drugs and to foster safe, healthy, and drug-free environments.

COUN 2305 Group Process for Addictions**Credit: 3 | Lecture: 3 | Lab: 0**

Explores group counseling skills and techniques including stages of group development and ethical issues specific to group process.

COUN 2306 Counseling Skills for Addictions Professionals**Credit: 3 | Lecture: 3 | Lab: 0**

Course develops counseling micro-skills necessary to establish an effective therapeutic relationship with clients to reduce negative effects of substance use.

COUN 2307 Family Dynamics**Credit: 3 | Lecture: 3 | Lab: 0**

Explores family as a dynamic system focusing on the effects of addiction on family roles, rules, and behavior patterns across generations using various family theories. Content will also focus on the family, social networks, and community systems role as a support system for the person with addiction and supports for family members such as codependent and Alateen support groups.

COUN 3301 Developmental Counseling**Credit: 3 | Lecture: 3 | Lab: 0**

Provides an in-depth look at the science of human development and how it applies to the field of counseling. Using counseling applications, case studies, and journal questions, the course introduces developmental theories and research within the context of clinical practice.

COUN 3306 Career Counseling**Credit: 3 | Lecture: 3 | Lab: 0**

Students will learn the basics of helping individuals involved in addictions recovery make career decisions, choices, and advocate for necessary mental health support on the job as well as explore the implications of legal action on various occupational choices.

COUN 3307 Wellness and Professional Practice**Credit: 3 | Lecture: 3 | Lab: 0**

Explores models and principles of stress management and wellness focused on self-awareness of personal, professional, and cultural variables.

COUN 3312 Socio-Cultural and Political Advocacy in Addictions Counseling**Credit: 3 | Lecture: 3 | Lab: 0**

Examines current social, political, economic, and cultural context of addiction including risk and resiliency factors for individuals, groups, and their environment. Content will also include importance and method for developing and maintaining relationships with civic groups, agencies, other professionals, governmental entities, and the community for resources, referrals and advocacy.

COUN 3313 Addictions and Personal Nutrition**Credit: 3 | Lecture: 3 | Lab: 0**

Introduces counseling students to nutritional information as it relates to personal health and nutrition, and commonly held misconceptions.

COUN 4301 Documentation, Ethics and the Law for Addictions Counselors**Credit: 3 | Lecture: 3 | Lab: 0**

Explore the Licensed Chemical Dependency Counselor (LCDC) rules in Texas and the NAADAC code of ethics for best practices. Content will also include billing/payment for services, insurance coverage, and current barriers to addictions services while striving to have parity with MH coverage.

COUN 4304 Adolescents and Addictions**Credit: 3 | Lecture: 3 | Lab: 0**

Examines therapeutic approaches and techniques for counseling adolescents with addictions. Course will also focus on the other stakeholders such as parents and educational institution personnel that play a significant role in adolescent lives.

COUN 4305 Addictions and Specific Adult Populations**Credit: 3 | Lecture: 3 | Lab: 0**

Explores the best practices for addictions treatment with diverse populations focusing specifically on populations such as veterans, LGBTQ individuals, incarcerated individuals and those with HIV, AIDS, and other sexually transmitted diseases.

COUN 4306 Suicide and Violence Assessment, Prevention, and Treatment**Credit: 3 | Lecture: 3 | Lab: 0**

Explores suicide and violence assessment, prevention strategies and treatment protocols related to underlying substance use disorder. Course will also address use of setting specific policies and procedures for handling crisis and dangerous situations for safety of professional and clients.

COUN 4307 Consultation and Supervision for Addictions Professionals**Credit: 3 | Lecture: 3 | Lab: 0**

Explores models and techniques of consultation and supervision. Course will address importance of ongoing supervision and continuing education.

COUN 4308 Process Addictions**Credit: 3 | Lecture: 3 | Lab: 0**

Explores different types of process addictions, assessment, and available treatment options.

COUN 4309 Addictions Practicum**Credit: 3 | Lecture: 3 | Lab: 0**

A 300-hour supervised practicum at a Clinical Training Institution (CTI) under the supervision of a LCDC or Qualified Credentialed Counselor (QCC).

Prerequisites: Admission to the Program and COUN 3303, COUN 3304, COUN 4301, COUN 4302, COUN 4306

COUN 4310 Learning Theories for Addiction Counselors**Credit: 3 | Lecture: 3 | Lab: 0**

A study of major theories of learning, motivation, and cognition as they apply to addictions counseling.

COUN 4389 Independent Study Course**Credit: 3 | Lecture: 3 | Lab: 0**

Course offered under special circumstances to students in the B.S. in Addictions program.

Prerequisites: Admission to the B.S. in Addictions program; Approval of instructor, chair, and Associate Dean.

COUN 4391 Special Topics**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered.

Prerequisites: Admission to the B.S. in Addictions program or instructor permission.

CRIM Criminal Justice and Criminology**CRIM 1301 Introduction to Criminal Justice****Credit: 3 | Lecture: 3 | Lab: 0**

History, philosophy, and ethical considerations of criminal justice; the nature and impact of crime; and an overview of the criminal justice system, including law enforcement and court procedures.

CRIM 3300 Gender and Crime**Credit: 3 | Lecture: 3 | Lab: 0**

Examines gender, gender roles, and how gender impacts criminal behavior in four major components: offending, victimization, criminal processing, and working in the criminal justice system.

CRIM 3312 Criminology**Credit: 3 | Lecture: 3 | Lab: 0**

Theories of causation; patterns and social response.

CRIM 3314 Terrorism and Homeland Security**Credit: 3 | Lecture: 3 | Lab: 0**

Examines the history of terrorism and its manifestations in the contemporary world. Terrorism in the U.S. and various components of homeland security are discussed.

CRIM 3330 Ethics in Criminal Justice**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of ethical issues in the criminal justice field, including police deviance, judicial misconduct, control of inmates in correctional settings, and field research dilemmas.

CRIM 3333 Victimology**Credit: 3 | Lecture: 3 | Lab: 0**

Provides a historical overview of the study of victimization in addition to existing theories, specific types of victimization, and criminal justice/social service responses to crime victimization.

CRIM 4306 Service Learning**Credit: 3 | Lecture: 3 | Lab: 0**

Service Learning is a course designed for students to take an active part in organized experiences that meet actual community needs combined with academic instruction, focusing on critical, reflective thinking and personal and civic responsibility. This course will involve students in activities that address community-identified needs with service integrating academic skills.

CRIM 4313 Juvenile Delinquency**Credit: 3 | Lecture: 3 | Lab: 0**

Individual and community aspects of juvenile delinquency; theories of causes and modes of control.

CRIM 4330 Criminal Investigation**Credit: 3 | Lecture: 3 | Lab: 0**

Review of methods and techniques used by investigators to reconstruct a crime in order to arrest the criminal offender.

CRIM 4331 Corrections**Credit: 3 | Lecture: 3 | Lab: 0**

Correctional institutions in the United States; analysis of their changing roles and functions.

CRIM 4333 Probation and Parole**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of alternatives to incarceration, emphasizing the major community-based activities of probation and parole. Includes discussion of intermediate punishments, restitution programs, house arrest, and electronic monitoring of offenders.

CRIM 4334 Criminal Law**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of structure and philosophy of criminal law; topics include criminal liability, criminal defenses, and types of offenses.

CRIM 4335 Race and Justice**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis of crime rates in the United States and the involvement of racial groups through theoretical exploration and practices in and out of the justice system.

CRIM 4338 Policing and Society**Credit: 3 | Lecture: 3 | Lab: 0**

Critical analysis of the role and function of American law enforcement including historical development and evolution, contemporary police organizations, individual officers, and relationship between police and community. Leverage of objectives of police: law enforcement, service, order, maintenance, and crime prevention.

CRIM 4339 Youth, Law, and Society**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of youth culture and policing and the interaction of the two.

Prerequisites: Completion of CRIM 1301, CRIM 4313, and CRIM 4338

CRIM 4384 Statistics**Credit: 3 | Lecture: 3 | Lab: 1**

Introductory course in statistics in criminology. Topics include both basic descriptive and inferential statistics.

CRIM 4385 Research Methods**Credit: 3 | Lecture: 3 | Lab: 0**

Introductory course in research methods in criminology. Topics include theory and measurement, designing and conducting research, and data collection and analysis.

CRIM 4389 Independent Study in Criminology**Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required.

CRIM 4390 Contemporary Issues in Criminology**Credit: 3 | Lecture: 3 | Lab: 0**

Course assesses students' skills in theory, research, and subject content. Explores the many opportunities provided by degree in Criminology. *Prerequisites: Completion of at least 80 credits and at least four courses in Criminology.*

CRIM 4391 Selected Topics in Criminology**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

CRIM 5338 Criminal Law**Credit: 3 | Lecture: 3 | Lab: 0**

Study of structure and rationale for criminal law; focus on criminal liability, criminal defenses, and types of offenses. (Cross-listed with CRIM 4334, SOCI 4334, and SOCI 5338.)

CSCI Computer Science**CSCI 1320 C Programming****Credit: 3 | Lecture: 3**

Programming techniques with the C programming language, emphasis on modular design, data abstraction and encapsulation using ANSI C. Use of all features of C including arrays, pointers, structures, prototypes, separate compilation and the C-preprocessor. Development of generic functions and study of portability issues.

CSCI 1370 Software Development with Java**Credit: 3 | Lecture: 3**

Programming with an object-oriented programming language, Java. Uses iteration, selection, recursion, exception handling, data structures and file I/O. Introduction of Object-oriented programming concepts such as reuse, data abstraction, classes, inheritance, polymorphism, exception handling and UML to build robust code and enhance problem solving methodology. May be used in the place of CS2. *Prerequisites: CSCI 1320 or CSCI 1470.*

CSCI 1470 Computer Science I**Credit: 4 | Lecture: 4 | Lab: 0**

Introduction to computer programming using Python. Topics include: design tools (flowcharts, pseudocode) control flow statements (if, while, for), simple arithmetic expressions, input and output statements, functions, data structures including strings and lists, text files. Introduction to software development lifecycle and testing. The course is programming-intensive with in-class assignments and weekly homework and a final project. Introduction to Arduino and number systems.

Prerequisites: MATH 1314 or higher.

CSCI 1471 Computer Science II**Credit: 4 | Lecture: 4**

Build upon basic programming concepts using Java constructs such as iteration, selection, recursion, exception handling, data structures and file I/O. Introduce object-oriented programming concepts including: reuse principles, data abstraction, classes, inheritance, polymorphism, exception handling and UML to build robust code and enhance problem solving methodology.

Prerequisites: CSCI 1320 or CSCI 1470

CSCI 2305 Data Structures for Science and Engineering**Credit: 3 | Lecture: 3**

Structured programming techniques, data structures and algorithms that include algorithm design and analysis, recursion, arrays, linked lists, stacks, queues, binary trees, hash tables, searching and sorting along with building abstract data types. Laboratory Instructions.

Prerequisites: CSCI 1320

CSCI 2315 Data Structures**Credit: 3 | Lecture: 3**

Advanced programming techniques and data structures including arrays, linked lists, queues and stacks; abstract data types, recursion, searching and sorting, binary trees, hashing techniques, elementary algorithm design and analysis, and more.

Prerequisites: (CSCI 1320 and CSCI 1370) or CSCI 1471

CSCI 2331 Computer Organization and Assembly Language**Credit: 3 | Lecture: 3 | Lab: 0**

Basic elements of computer hardware and software, data representations, instruction formats and addressing modes, assembly language instructions, programming techniques in assembly language, macro assemblers, link-loaders, functions of operating systems and input/output programming and peripherals. Laboratory instruction.

Prerequisites: (CSCI 1471 or CSCI 1370), MATH 2413

CSCI 3303 Fundamentals of Programming**Credit: 3 | Lecture: 3**

This course will build on basic script programming knowledge. Topics will include: problem solving using built-in functions and lambdas; data structures such as lists, tuples, sets, and dictionaries; comprehensions and generators; visualization; and processing data using databases and files including binary, text, and CSV files, etc. Students will work with Python. Laboratory instruction. Open to non-CS majors only.

Prerequisites: ITEC 2313, CSCI 1470 or instructor approval.

CSCI 3311 Programming With Visual Basic**Credit: 3 | Lecture: 3**

Programming with Visual Basic with emphasis on object-oriented programming and the uses of integrated development environments. Data types, control structures, functions and subroutines, files, classes, controls. Development using the .NET framework. Laboratory instruction. Open to non-majors only.

CSCI 3321 Numerical Methods**Credit: 3 | Lecture: 3**

Taylor series and error analysis, interpolation, solution of linear and non-linear equations, least squares, integration of functions and differential equations. Programming assignments.

Laboratory instruction.

Prerequisites: MATH 2318, MATH 2414, (CSCI 1471 or CSCI 1370).

CSCI 3323 Object-Oriented Design and Programming**Credit: 3 | Lecture: 3**

Basic elements of object-oriented technology including classes, their attributes, methods and relations to other classes, objects, classification and inheritance, encapsulation, polymorphism, object-oriented analysis, design and programming assignments in C++ language under UNIX. Laboratory instruction.

Prerequisites: CSCI 2315

CSCI 3331 Computer Organization and Assembly Language**Credit: 3 | Lecture: 3 | Lab: 0**

Basic elements of computer hardware and software, data representations, instruction formats and addressing modes, assembly language instructions, programming techniques in assembly language, macro assemblers, link-loaders, functions of operating systems and input/output programming and peripherals.

Laboratory instruction.

Prerequisites: CSCI 2315, MATH 2305, MATH 2414, PHYS 2325 and PHYS 2326.

CSCI 3352 Advanced Data Structures and Algorithms**Credit: 3 | Lecture: 3**

Binary trees, trees, graph theory, finite state automata, external storage devices, sequential and direct file organizations, file processing techniques, hashing, B-trees, external sorting, P and NP problems, algorithmic analysis.

Laboratory instruction.

Prerequisites: CSCI 2315, MATH 2305, MATH 2414, PHYS 2325 and PHYS 2326.

CSCI 3391 Selected Topics in Computing**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

CSCI 4189 Independent Study in Computer Science**Credit: 1 | Lecture: 1 | Lab: 0**

Prerequisites: Approval of instructor, chair and associate dean.

CSCI 4195 Cooperative Education Work Term**Credit: 1 | Lecture: 1**

Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

CSCI 4289 Independent Study in Computer Science**Credit: 2 | Lecture: 2**

Prerequisites: Approval of instructor, chair and associate dean.

CSCI 4308 Topics in Computer Science – Non-Majors**Credit: 3 | Lecture: 3**

Identified by topics each time the course is offered. Not to be taken for credit by majors in computing programs. Laboratory instruction.

CSCI 4312 Network Protocols**Credit: 3 | Lecture: 3**

Data communications systems software concepts; computer network architecture; ISO model. Laboratory instruction.

*Prerequisites: CSCI 2315***CSCI 4315 Advanced Software Development With .Net Framework and C#****Credit: 3 | Lecture: 3**

In depth study of the managed environment provided by .NET Framework and its use in developing advanced windows applications utilizing OOP concepts and techniques. Includes GUI issues, event and exception handling, multi-threading, networking, collections, file and database access as well as an introduction to ASP.NET, Web Forms and Web Services.

*Prerequisites: CSCI 2315***CSCI 4316 Advanced Enterprise Java and Framework****Credit: 3 | Lecture: 3**

Study of current Methodologies used in the design and development of enterprise applications using advanced Java technologies will be familiarized. This course will provide a high-level overview of Java Enterprise ecosystem by looking at its core APIs in action. Other contents include JavaServer Faces (JSF), Context and Dependency Injection (CDI), JavaServer Pages (JSP), Java API for RESTful Web Services (JAX-RS), WebSocket API, JSON Processing API, Enterprise Java Beans (EJB), Java Message Services (JMS), Java Persistence API (JPA), and front-line Java frameworks like Spring, Django, WebLogic, and JUnit for developing the most dynamic and powerful enterprise sites on the web. Laboratory instruction.

*Prerequisites: CSCI 2315***CSCI 4320 Web Application Development****Credit: 3 | Lecture: 3**

Survey of languages, tools and techniques for Web application development, HTML, XHTML, CSS, JavaScript, dynamic HTML, Server-side web development using .Net Framework with ASP.NET and C#, Perl, CGI programming with Perl, XML. Laboratory instruction.

Prerequisites: CSCI 2315.

CSCI 4323 Computer Security**Credit: 3 | Lecture: 3**

Introduction to encryption, decryption and cryptographical protocols; security components; security policies and mechanisms in computer applications, computer systems and networks; legal/ethical issues in computer security. Laboratory instruction.

Prerequisites: CSCI 1370 or CSCI 1471

CSCI 4333 Design of Database Systems**Credit: 3 | Lecture: 3**

Design of database systems, data description and manipulation languages, data models, entity-relationship model, relational model, SL, relational algebra, normalization theory, DBMS, internet, database design, data flow diagrams, and implementation of database systems. Laboratory instruction.

Prerequisites: CSCI 2315

CSCI 4335 Introduction to Artificial Intelligence**Credit: 3 | Lecture: 3**

Introduction to concepts of artificial intelligence: Foundations of artificial intelligence, intelligent agents, searching, constraint satisfaction, planning, knowledge representation uncertain knowledge and reasoning, and learning. AI programming languages will be introduced. Students who receive credit for CSCI 5335 will not receive credit for this course.

Prerequisites: CSCI 2315

CSCI 4336 Introduction to Machine Learning**Credit: 3 | Lecture: 3**

Introduction to concepts of machine learning: elements of probability distributions and linear algebra, supervised and unsupervised learning, linear and nonlinear regression, classification, neural networks, support vector machines, sampling methods, K-Means clustering, principal component analysis, Bayesian networks, and reinforcement learning. Applicability of each technique will be discussed.

Prerequisites: CSCI 2315

CSCI 4350 Computer Graphics and Interface Design**Credit: 3 | Lecture: 3**

Two-dimensional graphics algorithms, point and coordinate transformations, animation on graphics terminals and systems. Laboratory instruction using Solaris X-Windows-environment.

Prerequisites: MATH 2318, MATH 2413

CSCI 4351 Advanced Programming in Unix**Credit: 3 | Lecture: 3**

Program development in a multiprocessing environment, including; process and file system data structures, process control, synchronization and communication between concurrent processes, shared memory, threads and signals. Advanced input/output mechanisms such as asynchronous I/O and memory mapped I/O. Library functions including system function and database library routines. Laboratory instruction.

Prerequisites: CSCI 1320, CSCI 2315

CSCI 4354 Operating Systems**Credit: 3 | Lecture: 3**

Analysis and design of basic operating systems concepts, including multiprocessing, interprocess communication and synchronization, scheduling, file systems, memory management, input/output and deadlock. Examples drawn from real operating systems including Unix and Windows NT. Laboratory instruction.

Prerequisites: CSCI 2315, CSCI 2331, and senior standing.

Corequisites: CENG 3351

CSCI 4355 Programming Language Concepts**Credit: 3 | Lecture: 3**

Coverage of the building blocks of programming languages including syntax, semantics, and various computer programming expressions. Introduction to the different programming paradigms such imperative, object-oriented, functional, logic, concurrent programming and how they support constructs such as types, assignment, functions, parameter passing, classes, encapsulation, inheritance, polymorphism and exception handling through coverage of examples from each paradigm. This course will include laboratory programming assignments.

Prerequisites: CSCI 2315

**CSCI 4362 Computer Game Programming:
Theory and Practice****Credit: 3 | Lecture: 3 | Lab: 0**

Applying a fourth-generation game engine and language on designing and developing 2D and 3D real-time multimedia simulations and games for education, training, robotics and entertainment. Laboratory instruction.

Prerequisites: CSCI 2315

CSCI 4364 Computer Systems Administration**Credit: 3 | Lecture: 3**

Administration of computers and their operating systems, both as stand-alone and in network topologies. Unix is used as an example. Laboratory instruction.

Prerequisites: CSCI 2315 and senior standing.

**CSCI 4377 Introduction to Mobile Applications
Development****Credit: 3 | Lecture: 3**

Introduction to Mobile applications design and development principles. The study of the language and platform used for developing mobile applications on different mobile devices such as iOS and Android. Platform-specific topics will include design patterns such as Model-View-Controller, user interface, accessing device hardware features such as camera and GPS, and other mobile device features. Hands-on laboratory instructions provided using one of the popular mobile platforms.

Prerequisites: CSCI 1471 or equivalent.

CSCI 4379 Internship in Computer Science**Credit: 3 | Lecture: 3**

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: 15 hours of upper-level credit; approval by adviser and associate dean.

CSCI 4381 Computer Forensics**Credit: 3 | Lecture: 3**

Introduction to the topics of computer crime and computer forensics. Students will learn different aspects of computer crime and ways in which to protect, uncover and understand digital evidence. Students will gain experience using hardware and software tools to perform rudimentary investigations. Laboratory instruction.

Prerequisites: CSCI 1471 or CSCI 1370

CSCI 4388 Senior Project in Computer Science**Credit: 3 | Lecture: 3**

May be taken only during the final semester before graduation. Registration is restricted to students with an approved Candidate Plan of Study. Students develop a significant computer application for a realistic project. Emphasis will be on practical experience on all phases of constructing a computer solution. Professional behavior, ethics and teamwork will be developed throughout the project. Students prepare written reports and give oral presentations. Laboratory instruction.

Prerequisites: CSCI 3352 and SWEN 4342.

CSCI 4389 Independent Study in Computer Science**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean.

CSCI 4391 Selected Topics in Computer Science**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

CSCI 5134 Concurrent Programming and Software Modeling**Lecture: 0 | Lab: 1**

Principles of issues related to concurrent programming and software modeling. Detailed study of Unix, Java and .NET APIs for multiprocessing, multi-threading and synchronization. Introduction to Software Modeling using UML, analysis of requirements documents to produce UML models and automatic code generation using IDE plug-ins or built-in tools. Other software development issues like unit testing and version control will also be explored. Laboratory instruction.

Prerequisites: An OOP Language (C++, Java or C#)

CSCI 5333 Database Management Systems**Credit: 3 | Lecture: 3 | Lab: 0**

Database management systems (DBMS), relational DBMS, object-oriented DBMS, knowledge base management systems, database language, query optimization, security and integrity, concurrency control and recovery, design theory of databases. Laboratory instruction.

Prerequisites: CSCI 4333.

CSCI 5432 Design and Analysis of Algorithms**Lecture: 0 | Lab: 1**

Review of advanced data structures and algorithm design. Focus on analysis techniques for complex algorithms and data structures, including amortized analysis, randomized algorithms and NP approximations. Includes survey of parallel analysis and complexity theory.

Prerequisites: CSCI 3352.

CSCI 5531 Advanced Operating Systems**Lecture: 0 | Lab: 1**

Study of current methodologies used in the design of distributed operating systems including issues related to the design of distributed file systems, interprocess communication and synchronization facilities, process, processor and memory management within the context of distributed operating systems. Case studies and review of current literature. Basic introduction to network programming and its application to the design of a simplified component of a distributed operating system. Laboratory instruction.

Prerequisites: CSCI 4354 and CSCI 5134

CSCI 6530 Research Methods in Computer Science**Lecture: 0 | Lab: 1**

A study of current methods and techniques in computer science research, including writing research proposals, conducting research, technical writing and presentations.

DSCI Decision Sciences

DSCI 3321 Statistics I**Credit: 3 | Lecture: 3**

Introduction to probability and statistics; descriptive measures, probability distribution, sample statistics, estimation, confidence intervals, tests of hypotheses, chi-square, F-distribution, linear regression and correlation.

Prerequisites: Prerequisites: Finite Math (MATH 1324)

DSCI 3322 Statistics II**Credit: 3 | Lecture: 3**

Statistical inference, decision-making, prediction, sample design, significance tests, experimental design, non-parametric methods, decision theory, multiple regression and correlation, time series and index numbers.

Prerequisites: DSCI 3321 or equivalent.

DSCI 3331 Quantitative Methods for Management**Credit: 3 | Lecture: 3**

Introduction to quantitative techniques for management; probability, inventory and production models, linear programming, queuing, replacement models, Markov analysis and network models. Previously taught as DSCI 3131; credit may not be received for both courses.

Prerequisites: DSCI 3321 or equivalent.

DSCI 4351 Forecasting Systems**Credit: 3 | Lecture: 3**

Techniques for forecasting; time series, statistical methods and analysis of error.

Prerequisites: DSCI 3321 or equivalent.

DSCI 4389 Independent Studies in Decision Sciences**Credit: 3 | Lecture: 3**

Independent directed study in Decision Sciences.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

DSCI 4391 Selected Topics in Decision Sciences**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

ECED Early Childhood Education

ECED 1303 Children and Families

Credit: 3 | Lecture: 3 | Lab: 0

Social contexts in which a child develops, the relationships of individuals in these social contexts and the interaction within and between cross-cultural contexts. This course requires some visits to off-campus locations.

ECED 1311 Historical and Recent Trends in Early Childhood Education

Credit: 3 | Lecture: 3 | Lab: 0

Historical, societal, political, and economic factors that influence progressive early childhood programs and child services.

ECED 1318 Nutrition, Health and Safety

Credit: 3 | Lecture: 3 | Lab: 0

Study of nutrition, health, safety and related activities, including skills development in management of issues, guidelines and practices in nutrition, community health, hygiene and safety. Integration of these principles applies to a variety of Early Childhood settings. This course requires some visits to off-campus locations.

ECED 1354 Developmental Theories of Young Children

Credit: 3 | Lecture: 3 | Lab: 0

Focus on historic and current theories of children's learning and development.

ECED 4302 Integrated Curriculum for Young Children

Credit: 3 | Lecture: 3 | Lab: 0

Focus on the relationship among the content areas, skills, concepts and practices that support learning in young children. Integration of national and state standards into curriculum planning is featured. Field experiences required.

Prerequisites: ECED 1354 and TCED 4303

ECED 4303 Child Guidance and Classroom Management for Young Children

Credit: 3 | Lecture: 3 | Lab: 0

Theories and strategies for guiding the behavior of young children (birth to age five) inside and outside the classroom environment. Focus will be on effective strategies for behavior management, including the role of problem solving, the classroom community and family involvement. Field experiences required.

ECED 4305 Literacy Development Birth-Age 5

Credit: 3 | Lecture: 3 | Lab: 0

This course will cover language and literacy development for children birth through age five, including the beginning stages of reading and writing development, oral language development, parent involvement in literacy learning and appropriate curriculum for young children's literacy development. Field experience required.

**ECED 4306 Assessment of Young Children
Birth-Age 5****Credit: 3 | Lecture: 3 | Lab: 0**

This course will cover formal and informal assessment strategies appropriate for children birth through age five. Assessment for children's cognitive, social, physical and motor development for curriculum planning will be addressed as well as identifying children with developmental needs. This course requires students to identify and work with an individual child (birth - 5 years).

**ECED 4307 Mathematics and Science in Early
Childhood Education****Credit: 3 | Lecture: 3 | Lab: 0**

This course will explore principles, methods and materials for integrating and applying appropriate mathematics and science education into early childhood curriculum. Field experience required.

ECED 4308 Creativity in Early Childhood**Credit: 3 | Lecture: 3 | Lab: 0**

This course explores the theory, content and practice of integrating the performing arts into the curriculum design and early learning environments. Emphasis is placed on aesthetic development of young children through play, visual art, music, movement and creative dramatics.

ECED 4309 Advocacy and Parent Engagement**Credit: 3 | Lecture: 3 | Lab: 0**

This course focuses on the historical and current role of advocacy in Early Childhood Education, the development of advocacy skills, as well as collaboration with stakeholders such as parents, schools, communities and federal, state and local government leaders. Strategies for developing successful parent, school and community involvement programs will be analyzed. Field experience will be required.

**ECED 4311 Reading Development in Young
Children****Credit: 3 | Lecture: 3 | Lab: 0**

Focus on early language and literacy development of young children. Oral language development, beginning reading and writing strategies and family literacy are featured. Field experiences required.

Prerequisites: LLS 4311 and LLS 4345.

**ECED 4314 Observational/Developmental
Assessment of Young Children****Credit: 3 | Lecture: 3 | Lab: 0**

Evaluation and uses of developmental and cognitive assessment instruments and their theoretical bases will be explored. Students will develop informal assessments of the intellectual, language, social, physical and motor development of young children.

Prerequisites: ECED 1354 and TCED 4303

ECED 4320 Play in Early Childhood Curriculum
Credit: 3 | Lecture: 3 | Lab: 0

Focus on philosophy, research and applications of modern play and environments for play. Influences of play on child development, cognition, culture and overall health. The role of play in the early childhood curriculum will be emphasized. Field experiences required.

ECED 4321 Advanced Topics: Infants and Toddlers**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of human development from prenatal stages through the first two years of life. Emphasis is placed on the interrelationship of cognitive, physical, social and emotional development in a variety of contexts and cultures. Appropriate curriculum and environment for infants and toddlers will be emphasized. Field experiences required.

ECED 4322 Cultural Awareness for Young Children**Credit: 3 | Lecture: 3 | Lab: 0**

Focus on impact of diversity on development of young children. The influence of culture and social class on children's socialization and cognition will be discussed. Research and theories to support the development of minority children will be emphasized.

Prerequisites: SILC 4315

ECED 4323 Advanced Topics: Preschool Curriculum**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of integrated curriculum for children age three to five, including appropriate content, methodology, environment, materials and resources. This course requires some visits to off-campus locations.

ECED 4324 Early Childhood Leadership, Program Development, and Management**Credit: 3 | Lecture: 3 | Lab: 0**

This course will introduce leadership skills necessary to manage and strengthen early care and education program. The course will also cover skills to go beyond individual programs to leadership in communities and in the field. The focus will be on collaboration, interconnections, relationships, and program quality. Overarching themes include the importance of excellence and diversity in early childhood programs, and the role of vision and reflective practice in reaching these goals. This course requires some visits to off-campus locations.

ECED 4325 Early Childhood Program Development & Management I - Leadership Strategies and Staff Development**Credit: 3 | Lecture: 3 | Lab: 0**

This course will introduce a model of facilitative leadership as a way to empower staff to support shared decision-making. Students will identify effective employment practices that will help them find and keep the right people for available jobs and their organizations. The course will also introduce a comprehensive model for supervising staff and promoting their ongoing professional development-based on recognizing and appreciating individual differences. This course is part of the Early Childhood Leadership Certificate. Only students pursuing this certificate may enroll in this course. This course has an additional course fee that will be applied towards the National Director's Credential.

ECED 4326 Effective and Positive Classroom Interactions for Young Children**Credit: 3 | Lecture: 3 | Lab: 0**

This course is designed to improve practitioner's knowledge and skills regarding specific types of adult-child interactions that can have a positive impact on young children's development. Using state and nationally recognized criteria for high-quality interactions, this course will provide strategies that align with those criteria and that will prepare professionals to engage in positive and effective interactions with young children, toddlers through preschool. This course requires some students to identify and work with an individual child (birth - 5 years).

ECED 4327 Early Childhood Program Development & Management II - Managing Center Operations and Finance**Credit: 3 | Lecture: 3 | Lab: 0**

This course will introduce the components of effective management including: systems and the importance of systems thinking; stakeholder analysis and management; the strategic planning process; how policies, procedures, and systems are interconnected; and tools for taking charge of program operations. Students will learn how to manage a fiscally responsible early childhood business and be introduced to effective budgeting and accounting. Students will develop the skills needed to promote a positive public image and create environments that welcome and support the learning of children and adults. This course is part of the Early Childhood Leadership Certificate. Only students pursuing this certificate may enroll in this course. This course has an additional course fee that will be applied towards the National Director's Credential.

*Prerequisites: ECED 4325***ECED 4329 Early Childhood Program Development & Management III - Implementing and Evaluating the Program****Credit: 3 | Lecture: 3 | Lab: 0**

In this course students will learn to support young children's development and learning by understanding the interactive environment, the advantages of different groupings and staffing patterns, and continuity of care. Students will learn how to implement developmentally appropriate early childhood curriculum and the importance of observation and child assessment in achieving program goals. The students will explore the early childhood administrator's role in creating family partnerships, promoting an appreciation of diversity, nurturing open communication, the importance of program evaluation, and how to implement continuous quality improvement. This course is part of the Early Childhood Leadership Certificate. Only students pursuing this certificate may enroll in this course. This course has an additional course fee that will be applied towards the National Director's Credential.

*Prerequisites: ECED 4325 and ECED 4327***ECED 4332 Teaching Young Children with Special Needs****Credit: 3 | Lecture: 3 | Lab: 0**

This course integrates theory, law, research, and current evidence-based practices associated with serving young children (birth through age eight), who present a wide range of special needs, and their families. Emphasis includes the assessment process, eligibility of services, program design and an eclectic blend of approaches and strategies that can be utilized to meet individual child needs within the context of inclusive, natural environments. Field experiences required.

ECED 4333 Advanced Studies in Young Children with Special Needs**Credit: 3 | Lecture: 3 | Lab: 0**

This course will extend key topics in early childhood special education and early intervention presented in the ECED 4332 course, specifically the strategies and techniques used by practitioners across a variety of settings serving children birth to age eight. Focus on course aims to enhance critical analysis of issues while broadening pedagogy knowledge and decision-making skills. Field experiences required.

Prerequisites: ECED 4332

ECED 4377 Practicum**Credit: 3 | Lecture: 3 | Lab: 0**

Supervised field experience in an approved early childhood educational setting. Permission of instructor required.

ECED 4389 Independent Study in Early Childhood Education**Credit: 3 | Lecture: 3 | Lab: 0**

Prerequisites: Approval of instructor and associate dean.

ECED 4391 Selected Topics in Early Childhood Education**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by title each time course is offered.

ECON Economics**ECON 2301 Principles of Macroeconomics****Credit: 3 | Lecture: 3**

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, fiscal policy and monetary policy.

ECON 2302 Principles of Microeconomics**Credit: 3 | Lecture: 3**

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 3311 Money and Banking**Credit: 3 | Lecture: 3**

The role of money and the banking system in the economy; monetary theory and policy and international monetary conditions.

Prerequisites: Principles of economics.

ECON 3321 Development Economics**Credit: 3 | Lecture: 3**

An evaluation of the economic growth and development in developed and developing countries. Topics include determinants of economic growth, the roles of credit markets and political forces in growth, poverty, and health and nutrition.

Prerequisites: Principles of Economics or equivalent

ECON 3361 Industrial Organization**Credit: 3 | Lecture: 3**

The structure of contemporary industry and the forces that have shaped it, including manufacturing, trade and transportation. The role of the large corporation in modern industrial organization. The relation of industrial structure to economic behavior and performance.
Prerequisites: Principles of Macroeconomics

ECON 3371 Public Finance**Credit: 3 | Lecture: 3**

Problems of collective consumption, external effects, public investment, social decision-making and property taxes, and other tax and non-tax revenue sources. Consideration of current policy issues and relations among various levels of government.
Prerequisites: Principles of Microeconomics

ECON 3381 Energy and Environmental Economics**Lecture: 3**

Economic techniques applied to particular issues of energy markets, environmental impacts, investment in renewables, and other issues such as transportation and conservation. Study includes economics of energy and environmental regulation such as utility management, emissions trading markets, and optimal effluent taxes.
Prerequisites: Principles of Microeconomics

ECON 3391 Sports Economics**Credit: 3 | Lecture: 3**

Intercollegiate and professional sports leagues. Competitive balance, player labor markets, and owner capital markets. Theories of league expansion, rival leagues, franchise relocation, and sports venue finance. Comparisons of international sports leagues.
Prerequisites: Principles of Microeconomics

EDUC Education**EDUC 1100 Learning Framework****Credit: 3 | Lecture: 3 | Lab: 0**

A study of the 1) research and theory in 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.

EDUC 3301 Introduction to Educational Statistics and Measurement**Credit: 3 | Lecture: 3 | Lab: 0**

Applications of measurement, correlation, and descriptive statistics with a focus on interpretation of standardized tests and surveys.

EDUC 4300 School and Community**Credit: 3 | Lecture: 3 | Lab: 0**

Historical, legal and philosophical foundations of education in American society.

EDUC 4310 Theories of Educational Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

A study of major theories of learning, motivation, cognition and moral development as they apply to professionals and learners, including constraints imposed by law and social policy and tradition.

EDUC 4389 Independent Studies in Education**Credit: 3 | Lecture: 3 | Lab: 0**

Prerequisites: Approval of instructor and associate dean.

EDUC 4391 Selected Topics in Education**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered.

ENGR Engineering

ENGR 1201 Introduction to Engineering**Credit: 2 | Lecture: 2**

An introduction to the engineering profession with emphasis on technical communication and team-based engineering design.

Prerequisites: MATH 1314 or equivalent.

ENGR 1304 Engineering Graphics I**Credit: 3 | Lecture: 3**

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.

Prerequisites: MATH 1314 or equivalent.

ENGR 2105 Laboratory for Electrical Circuits I**Credit: 1 | Lecture: 0 | Lab: 3**

This laboratory will provide the student hands on experience with linear circuits.

Corequisites: ENGR 2305

ENGR 2301 Statics**Credit: 3 | Lecture: 3**

Review of vector methods, static analysis of forces acting on a particle and reduction of forces to equivalent force and couple. Static analysis of rigid bodies, trusses, frames and machines. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: PHYS 2325, PHYS 2125

Corequisites: MATH 2414

ENGR 2302 Dynamics**Credit: 3 | Lecture: 3**

Principles of work and energy applied to particles, systems of particles, and rigid bodies. Impulse and momentum methods. Application of Newton's laws to derive equations of motion for particles, rigid bodies and systems. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: ENGR 2301

ENGR 2304 Computing for Engineers**Credit: 3 | Lecture: 3**

Introduction to computing; matrix arithmetic, programming constructs, algorithms and graphical visualization using MATLAB; problem solving applications in engineering analysis and design. Prior successful completion of (grade of "C" or better) or concurrent enrollment in MATH 2318 required.

Prerequisites: ENGR 1201, MATH 2318.

ENGR 2305 Electrical Circuits I**Credit: 3 | Lecture: 3**

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. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: PHYS 2326, PHYS 2126, MATH 2414

Corequisites: MATH 2320.

ENSC Environmental Science

ENSC 1101 Laboratory for Environmental Science I**Credit: 1 | Lecture: 0 | Lab: 1**

Laboratory exercises include water, soil and air testing, field sampling and observations. Optional and required field trips. Not for biology or environmental science majors.

Corequisites: ENSC 1301

ENSC 1102 Laboratory for Environmental Science II**Credit: 1 | Lecture: 0 | Lab: 1**

Laboratory exercises in environmental quality assessment techniques, field sampling techniques and related studies of local environments. Optional and required field trips. Not for biology or environmental science majors.

Corequisites: ENSC 1302

ENSC 1301 Environmental Science I**Credit: 3 | Lecture: 3**

An introduction to chemical and biological principles relating to ecology, natural resources including animals, plants, water, soil and air. Not for biology or environmental science majors.

Corequisites: ENSC 1101

ENSC 1302 Environmental Science II**Credit: 3 | Lecture: 3**

Interdisciplinary study of natural and social sciences and how they apply to the environment, including energy, waste and resource management and global climate change. Not for biology or environmental science majors.

Corequisites: ENSC 1102

ENSC 2230 Environmental Science Seminar I**Credit: 2 | Lecture: 2**

Sophomore seminar course, includes journal article critiquing, analyzing data, writing research papers, preparing oral and poster presentations in environmental science.

ENSC 3301 Energy and the Environment**Credit: 3 | Lecture: 3**

Introduction to renewable and nonrenewable energy sources and their related impacts on environment. Field trips and laboratory exercises included. Course designed for science majors.

ENSC 3307 Geographic Information Systems
Credit: 3 | Lecture: 3

This course covers the fundamentals of GIS including GIS terminology and architecture, GIS data structures, cartographic principles, data sources and methods of data acquisition including remote sensing, data manipulation and conversion, query techniques and spatial analysis.

ENSC 3331 Environmental Biology**Credit: 3 | Lecture: 3**

The impacts of pollution, anthropogenic activities and other stresses on ecosystem structure and function. Course designed for science majors.

ENSC 3332 Environmental Chemistry**Credit: 3 | Lecture: 3**

Chemical processes and reactions related to chemical pollution problems and other control in the atmosphere, soils, water and wastes. Prerequisites: CHEM 1311, CHEM 1312 or equivalent.

Prerequisites: CHEM 1311, CHEM 1312 or equivalent.

ENSC 3333 Environmental Geology**Credit: 3 | Lecture: 3**

Relationships between human activities and the geological environment. Includes study of natural hazards, natural resources and waste disposal in the geologic environment. Suitable for non-majors.

ENSC 4130 Environmental Science Seminar II**Credit: 1 | Lecture: 3 | Lab: 1**

Senior capstone seminar, library research and writing major review paper with oral presentation.

Prerequisites: ENSC 2230, ENSC 3331, ENSC 3332, ENSC 3333

ENSC 4189 Independent Study in Environmental Science**Credit: 1 | Lecture: 1**

Prerequisites: Approval of instructor, chair and associate dean.

ENSC 4195 Cooperative Education Work Term**Credit: 1 | Lecture: 1**

Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)
Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

ENSC 4225 Environmental Toxicology Laboratory**Credit: 2 | Lecture: 1 | Lab: 3**

Theory and practice in environmental toxicity testing of water and soils using EPA standard methods.

Prerequisites: ENSC 4325 or equivalent.

ENSC 4251 Laboratory for Environmental Analysis**Credit: 2 | Lecture: 1 | Lab: 3**

Experimental methods for sampling and analysis of environmental samples using modern instruments. Hands-on laboratory and field experiments. One hour of lecture and 3 hours of laboratory per week.

Prerequisites: ENSC 3332

ENSC 4289 Independent Study in Environmental Science**Credit: 2 | Lecture: 2**

Prerequisites: Approval of instructor, chair and associate dean.

ENSC 4315 Environmental Science Practicum**Credit: 3 | Lecture: 3 | Lab: 0**

Practical experience at an on-or off- campus facility. Requires pre-enrollment interview, minimum of 150 hours work, and faculty approval.

Prerequisites: Junior or senior standing

ENSC 4323 Soils in the Environment**Credit: 3 | Lecture: 3**

Study of the environmental aspects of soils including expansive soils, clay minerals, soil contamination and subsurface pathways for pollutants. Laboratory and fieldwork included.

Prerequisites: ENSC 3333

ENSC 4325 Environmental Toxicology**Credit: 3 | Lecture: 3**

Physiological and systemic effects of exposure to environmental pollutants.

Prerequisites: BIOL 1306, BIOL 1307 or equivalent; CHEM 2323.

ENSC 4331 Introduction to Environmental Engineering**Credit: 3 | Lecture: 3**

Introduction to fundamental science and engineering principles for understanding environmental processes and solving environmental engineering problems. Includes materials and energy balances, water and wastewater treatment, pollution, waste management, sustainability and green engineering. Field trips and lab exercises included.

Prerequisites: CHEM 1311 and CHEM 1312 or ENSC 1301 and ENSC 1302

ENSC 4332 Advanced Environmental Science**Credit: 3 | Lecture: 3**

This course will apply basic science (biology, chemistry, and geology) into the interdisciplinary study of environmental systems. Topics include causes and solutions to land, air, water and ecosystem degradation. The current trend and recent advances in the field of environmental research will be discussed. This course includes lectures, field trips, and reports.

Prerequisites: ENSC 2230, ENSC 3331, ENSC 3332, ENSC 3333.

ENSC 4333 Introduction to Global Climate Change**Credit: 3 | Lecture: 3**

Course introduces and integrates the multidisciplinary science working to understand the behavior of the Earth's climate. The course investigates the dynamic roles of Earth's geosphere, cryosphere, hydrosphere, atmosphere, biosphere, orbit and human activities on historical, present and future climates.

ENSC 4335 Applied GIS**Credit: 3 | Lecture: 3**

This course emphasizes the use of spatial analysis capabilities in Geographical Information Systems (GIS) in a range of applications. Topics covered include vector, raster and surface analysis, classification methods, interpolation techniques, watershed analysis and 3D visualization.

Prerequisites: ENSC 3307 or equivalent.

ENSC 4336 Web GIS**Credit: 3 | Lecture: 3 | Lab: 0**

This course aims to provide students with web GIS knowledge needed for managing web GIS projects, and to teach students the latest web GIS technologies needed for building modern web GIS apps. This course focuses on Esri's web GIS platform including the following products: ArcGIS Online, ArcGIS Pro, mobile apps, Story Maps, Web AppBuilder, and 3D web scenes.

Prerequisites: ENSC 3307 or equivalent.

ENSC 4337 Geospatial Technologies**Credit: 3 | Lecture: 3**

This course focuses on the concepts and applications of Global Positioning Systems (GPS), Satellite imageries, Light Detection and Ranging (LiDAR), and Small Unmanned Aircraft Systems (sUAS). Students will gain the skills needed to acquire and use data from these geospatial technologies in applications such as topographic mapping, flood inundation, and vegetation analysis. The course components include lectures, fieldwork and labs.

Prerequisites: ENSC 3307 or equivalent.

ENSC 4351 Hydrogeology**Credit: 3 | Lecture: 3**

Comprehensive study of hydraulic characteristics of soil, rocks, aquifers, rivers and lakes with application to environmental and water resource planning concerns. Topics covered include hydrological cycles, aquifer testing, contaminant transports in various geological media, water resources management and others. Laboratory exercises included.

Prerequisites: ENSC 3333

ENSC 4352 Water Chemistry and Water Pollution**Credit: 3 | Lecture: 3**

Study of chemical equilibria in natural waters, water quality parameters, water sampling, important water pollutants and their fate.

Prerequisites: CHEM 1311, CHEM 1312

ENSC 4355 Environmental Sampling and Monitoring**Credit: 3 | Lecture: 3**

Principles and techniques of environmental sampling for air, water, soil and hazardous wastes. EPA standard methods for environmental analysis using biological, chemical and instrumental techniques.

Prerequisites: Junior standing

ENSC 4356 Soil and Groundwater Remediation**Credit: 3 | Lecture: 3**

Chemical, biological, geological principles and applications of various remediation techniques commonly used to clean up contaminated soils and groundwater.

Prerequisites: ENSC 3333

ENSC 4379 Internship in Environmental Science**Credit: 3 | Lecture: 3**

Supervised work experience in an approved industrial firm or governmental agency. Written and oral reports required.

Prerequisites: 15 hours of upper-level credit; approval of faculty adviser and associate dean.

ENSC 4389 Independent Study in Environmental Science**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean.

ENSC 4391 Topics in Environmental Science**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

ENVR Environmental Management

ENVR 3311 Foundations of Environmental Management**Credit: 3 | Lecture: 3**

Presentation, analysis and application of the principles of managing human interaction with the environment.

ENVR 4189 Independent Studies in Environmental Management**Credit: 1 | Lecture: 1**

Independent directed study in Environmental Management.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

ENVR 4311 Principles of Air Quality Management**Credit: 3 | Lecture: 3**

Analysis of practices and technology for the control of atmospheric pollution.

Prerequisites: Introductory chemistry, ENVR 3311 or equivalents.

ENVR 4312 Water Management Principles**Credit: 3 | Lecture: 3**

Principles of effective water resources management; national and state water resource practices.

Prerequisites: Introductory chemistry, ENVR 3311 or equivalents.

ENVR 4313 Techniques of Environmental Assessment**Credit: 3 | Lecture: 3**

Familiarization with and basic critique of environmental impact assessment, environmental auditing and other decision and planning tools.

Prerequisites: ENVR 3311 and ENVR 4315 or equivalents.

ENVR 4315 Introduction to Environmental Law**Credit: 3 | Lecture: 3**

Application of legal concepts and systems to environmental issues; basic federal and state environmental legislation.

ENVR 4317 Solid Waste Management Practices**Credit: 3 | Lecture: 3**

A study of the management practices and technology used for non-hazardous solid waste collection, treatment, disposal and reuse.

ENVR 4332 The Process of Environmental Permitting**Credit: 3 | Lecture: 3**

A practical survey of the permits and procedures used by environmental agencies for regulatory control.

ENVR 4333 Introduction to Pollution Control Technology**Credit: 3 | Lecture: 3**

An introduction to the technical aspects of pollution control including principles, equipment applications, manpower and energy requirements and economic factors.

Prerequisites: ENVR 3311 or equivalent.

ENVR 4336 Administrative Practice and Ethical Issues**Credit: 3 | Lecture: 3**

The study of administrative agencies and their structure and authority; practical considerations when interacting with administrative agencies on environmental issues; ethical issues in environmental management.

ENVR 4379 Internship in Environmental Management**Credit: 3 | Lecture: 3**

Supervised field experience with an approved agency or office. Written and oral reports required.

Prerequisites: Prerequisite: Approval of faculty adviser and program director.

ENVR 4389 Independent Studies in Environmental Management**Credit: 3 | Lecture: 3**

Independent directed study in Environmental Management.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

ENVR 4391 Selected Topics in Environmental Management**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

FINC Finance

FINC 3301 Personal Money Management**Credit: 3 | Lecture: 3**

Quantitative and qualitative applications of key concepts of individual financial management to essential personal finance topics, including exploration of family budgeting, insurance, taxes, borrowing, saving, investing and retirement and estate planning.

Prerequisites: Must have completed 30 SCH.

FINC 3331 Business Finance**Credit: 3 | Lecture: 3**

Fundamental tools and techniques in financial planning; working capital management, capital budgeting; cost of capital; dividend theory, mergers and business failures.

Prerequisites: Principles of accounting (ACCT 2301 and 2302), principles of economics (ECON 2301 and 2302) and DSCI 3321 or equivalent.

FINC 3333 Intermediate Financial Management**Credit: 3 | Lecture: 3**

Advanced principles and practices in the financial administration of business enterprises.

Prerequisites: FINC 3331 or equivalent with a C or better.

FINC 3336 Risk Management**Credit: 3 | Lecture: 3**

Techniques for managing pure risks for individuals and small businesses, and the characteristics of life, health, and property insurance are studied.

Prerequisites: FINC 3331 or equivalent.

FINC 3351 Real Estate Investment Analysis**Credit: 3 | Lecture: 3**

Analytical foundations of evaluating real estate investments and exploration of the methods of financing such investments.

Prerequisites: ECON 2301 or equivalent

FINC 3353 Investments**Credit: 3 | Lecture: 3**

Personal investments in bonds, mortgages, stocks and other securities; financial statements and credit.

Prerequisites: FINC 3331 or equivalent with a C or better. FINC 3333 or equivalent with C- or better.

FINC 4331 Contemporary Financial Institutions**Credit: 3 | Lecture: 3**

Management policies of commercial banks, savings and loan associations, credit unions, finance companies and other financial intermediaries.

Prerequisites: FINC 3331 or equivalent with a C or better.

FINC 4341 Structure of Financial Statements**Credit: 3 | Lecture: 3**

Evaluation of the structure of financial statements and their use in financial decision-making.

Prerequisites: FINC 3331 or equivalent with a C or better; ; ACCT 3341 or ACCT 3332 or equivalents with a C- or better.

FINC 4351 International Financial Operations**Credit: 3 | Lecture: 3**

International transactions and financial flows; balance of payments, foreign exchange market, worldwide commercial policy and financing.

Prerequisites: FINC 3331 or equivalent with a C or better.

FINC 4352 Seminar in International Finance**Credit: 3 | Lecture: 3**

Field experience involving meetings with financial officers of companies operating outside of the United States. Discussions will involve matters relating to the financing of international business activities and operating in a non-American business environment.

FINC 4353 Financial Derivatives**Credit: 3 | Lecture: 3**

Quantitative concepts relating to financial derivatives, including options, futures, forwards, swaps and other securities with a primary emphasis on the valuation of these contracts and how they can be used to manage risk by hedging.

Prerequisites: FINC 3331 or equivalent with a C or better.

FINC 4356 Income Taxation**Credit: 3 | Lecture: 3**

An analysis of the federal income tax laws as they apply to individuals and the financial planning process (Cross-listed with ACCT 4331).

Prerequisites: FINC 3331 and Principles of Accounting, or equivalents.

FINC 4361 Treasury Management**Credit: 3 | Lecture: 3**

Short-term asset and liability management, including the issues essential to the day-to-day management of cash flows associated with the operating cycle of a firm.

Prerequisites: FINC 3331 or equivalent with a C or better.

FINC 4373 Retirement and Benefits Planning**Credit: 3 | Lecture: 3**

Examination of the various retirement vehicles, group life and health programs, and government required benefits. Integration into an overall financial planning process is emphasized.

Prerequisites: FINC 3331 and FINC 3353 or equivalents.

FINC 4376 Estate Planning**Credit: 3 | Lecture: 3**

Examination of federal and state laws concerning the distribution of assets in an estate. Significant attention is made to tax minimization strategies.

Prerequisites: FINC 3331 and FINC 3353 or equivalents.

FINC 4379 Internship in Finance**Credit: 3 | Lecture: 3**

Six hours of supervised work experience each week in an approved financial institution or firm.

Prerequisites: 15 hours of upper-level credit and approval of program director.

FINC 4389 Independent Studies in Finance**Credit: 3 | Lecture: 3**

Independent directed study in Finance.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

FINC 4391 Selected Topics in Finance**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

GEOG Geography

GEOG 1301 Modern Physical Geography**Credit: 3 | Lecture: 3 | Lab: 0**

This course is designed to provide students with an overview of the natural environment in which we live and the way it functions, at varying scales from local to global. Specifically, it aims to introduce students to important concepts, facts, and terminology of physical geography and impart an appreciation of the interrelationships between humans and their environment.

GEOG 1302 Global Geography**Credit: 3 | Lecture: 3 | Lab: 0**

A broad survey of the world's major culture regions emphasizing basic physical, cultural, economic, and political patterns, as well as the processes that have created those patterns. Emphasis on economic development, ethnic conflict, and environmental degradation, as well as on the changing role of the United States.

GEOG 1303 World Regional Geography**Credit: 3 | Lecture: 3 | Lab: 0**

An examination of the world's geographic regions focusing on the location of Earth's major physical features, human populations and cultures, and their interaction. Topics include the cultural landscape, globalization, development, migration, commodity chains, tourism, and the Anthropocene.

GEOG 4300 Geography of North America**Credit: 3 | Lecture: 3 | Lab: 0**

This course introduces students to the human and physical landscapes of North America as they would be encountered traveling about the continent. It aims to help students understand why landscapes differ from place to place and at the same time provide them with information and insight about what one could expect to find on the landscape, and why.

GEOG 4301 Urban Geography**Credit: 3 | Lecture: 3 | Lab: 0**

What is the nature of our relationship with cities? Do we control them or do they control us? How are cities shaped by culture, society, economics, politics, and the environment? Why do urban places look the way they do? How did their morphology evolve and change through the millennia? The goal of this course is to answer these questions and other related to the ongoing urbanization of our lives and the earth.

GEOG 4302 Geography of Latin America**Credit: 3 | Lecture: 3 | Lab: 0**

This course is a general introduction to Latin American and Caribbean environments and peoples from a geographical perspective. The course explores such topics as landforms, climate, environmental hazards, resource management, globalization, population and migration, cities, sustainable development, geopolitics, frontiers, conservation, and cultural survival.

GEOG 4303 Geography of Texas**Credit: 3 | Lecture: 3 | Lab: 0**

This course explores the geography of Texas. Topics include: past and current physical and biotic environments; ethnic origins, human ecology; and the social, economic and political sources of environmental problems.

GEOG 4306 Service Learning**Credit: 3 | Lecture: 3 | Lab: 0**

Service Learning is a course designed for students to take an active part in organized experiences that meet actual community needs combined with academic instruction, focusing on critical, reflective thinking and personal and civic responsibility. This course will involve students in activities that address community-identified needs with service integrating academic skills.

GEOG 4311 Historical Geography**Credit: 3 | Lecture: 3 | Lab: 0**

An introduction to historical geography as a subfield of geography with an emphasis on the evolving patterns of land use and settlement in the United States from the pre-colonial period to the present.

GEOG 4312 Human Geography**Credit: 3 | Lecture: 3 | Lab: 0**

Study of the importance of human/environment relationships to a global society. Focuses on the world distribution of natural and human resources as they interrelate and provide character to places.

GEOG 4314 Teaching Geography**Credit: 3 | Lecture: 3 | Lab: 0**

An exploration of best practices for teaching geography in K-12 schools. Topics include: the nature of geographic reasoning; integrating geography in the social studies curriculum; teaching strategies; and assessment.

GEOG 4321 Fundamentals of Geographic Information Systems**Credit: 3 | Lecture: 0 | Lab: 3**

In this introductory course, students become familiar with the concepts and gain the experience necessary to appreciate the utility of Geographic Information Systems in decision-making. Topics include the fundamentals of data structures, georeferencing, data classification, querying, cartography, web GIS, and basic spatial data analysis. The course provides an overview of the capabilities of GIS software and applications of GIS. Class time is divided between lectures and GIS exercises that reinforce critical concepts. Interdisciplinary examples and assignments are drawn from the social and natural sciences.

GEOG 4323 Geographic Information Systems Design and Implementation**Credit: 3 | Lecture: 0 | Lab: 3**

This course teaches GIS design, project management and communication skills and an appreciation of the ethical, legal and social issues surrounding maps, GIS and geographical data. Students engage in exercises that spans the entire range of GIS design and implementation: from problem inception to solution testing

Prerequisites: GEOG 4322

GEOG 4379 Internship in Geography**Credit: 3 | Lecture: 0 | Lab: 0**

Provides supervised professional experience in public and private sector positions and is intended to introduce students to the skills and working environments of careers in geography. Students are required to consult with a geography faculty member before registering for this class.

GEOG 4389 Independent Study in Geography**Credit: 3 | Lecture: 0 | Lab: 0**

Allows the student to pursue topics not offered in the course catalog through in-depth coursework under the direction of an instructor. This course may include directed readings, coverage of special topics, and other independent study. The topic and scope of study, learning objectives, work required, methods of evaluation, and academic level will be determined in conference between the student and instructor.

GEOG 4391 Selected Topics in Geography**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

GEOL Geology

GEOL 1103 Laboratory for Physical Geology**Credit: 1 | Lecture: 0 | Lab: 1**

Hands-on identification of common rocks and minerals; analysis of geological processes associated with different environments.

Corequisites: GEOL 1303

GEOL 1104 Laboratory for Historical Geology**Credit: 1 | Lecture: 0 | Lab: 1**

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.

Corequisites: GEOL 1304

GEOL 1303 Physical Geology**Credit: 3 | Lecture: 3**

An introduction to physical geology. A study of minerals, rocks, earth's structures and the geological processes that modify the earth's surface.

Corequisites: GEOL 1103

GEOL 1304 Historical Geology**Credit: 3 | Lecture: 3**

A study of the geologic history of the earth. Topics include the geologic processes and principles that have shaped our planet including plate tectonics, geological age dating ancient depositional environments and the preservation of fossils.

Corequisites: GEOL 1104

GEOL 3117 Laboratory for Mineralogy and Petrology**Credit: 1 | Lecture: 0 | Lab: 1**

Hand specimen and optical characterization and interpretation of minerals and rocks. Fields trips may be required.

Corequisites: GEOL 3317

GEOL 3240 Geological Field Methods**Credit: 2 | Lecture: 2**

Collection of field data, interpretation and construction of geologic and topographic maps and examination of petrologic systems. Field trips required.

GEOL 3304 Planetary Geology**Credit: 3 | Lecture: 3**

Study of the origins and evolution of Earth, Mercury, Venus, Mars and the Moon. Physical processes essential to understanding geology are stressed. Laboratory exercises included.

Prerequisites: GEOL 1303 or ASTR 1304.

GEOL 3305 Fundamentals of Earth Science**Credit: 3 | Lecture: 3**

Study of basic physical and chemical processes that operate within the geosphere, atmosphere, hydrosphere, solar system and universe. Natural and anthropogenic factors that affect global climate change are also studied. Suitable for non-majors.

GEOL 3317 Mineralogy and Petrology**Credit: 3 | Lecture: 3**

Formation, identification and geologic and economic significance of minerals and igneous, metamorphic and sedimentary rocks. Field Trips Required.

Prerequisites: GEOL 1303 and GEOL 1103, or ENSC 3333

Corequisites: GEOL 3117

GEOL 4145 Lab for Structural Geology**Credit: 1 | Lecture: 0 | Lab: 1**

Laboratory for the analysis of rock the geometry, kinematics and mechanics of rock deformation as a result of tectonic processes. Field trips required.

Corequisites: GEOL 4345

GEOL 4189 Independent Study in Geology**Credit: 1 | Lecture: 1**

Prerequisites: Approval of instructor, chair and associate dean

GEOL 4191 Selected Topics in Geology**Credit: 1 | Lecture: 1**

Identified by specific title each time course is offered.

GEOL 4291 Selected Topics in Geology**Credit: 2 | Lecture: 2 | Lab: 0**

Identified by specific title each time course is offered.

GEOL 4311 Geology of Texas**Credit: 3 | Lecture: 3**

Geological evolution of Texas including physiographic provinces, landforms and subsurface structure. Field trips required.

GEOL 4317 Advanced Mineralogy and Petrology**Credit: 3 | Lecture: 3**

Formation, identification and geologic and economic significance of minerals and igneous, metamorphic and sedimentary rocks. Application of modern laboratory methods to the study of rocks and minerals including optical microscopy. Laboratory exercises included.

Prerequisites: GEOL 3317.

GEOL 4324 Geomorphology**Credit: 3 | Lecture: 3**

Origin and evolution of landforms; geomorphic cycles, physiographic provinces, application of maps, aerial photographs and quantitative methods to geomorphology. Laboratory exercises included.

Prerequisites: GEOL 1303.

GEOL 4325 Sedimentation and Stratigraphy**Credit: 3 | Lecture: 3**

Origins, depositional environments and internal structures of sedimentary rocks. Principles of stratigraphy and bio-stratigraphy, evolution of modern stratigraphic nomenclature. Fields trips required.

Prerequisites: GEOL 1303, GEOL 1304

GEOL 4326 Oceanography**Credit: 3 | Lecture: 3**

The course emphasizes the application of geologic principles to the study of the marine environment and associated physical, chemical and biological processes. Topics covered include coastal processes, ocean resources, ocean management and human interaction with oceans.

Prerequisites: GEOL 1303 or ENSC 3333

GEOL 4327 Natural Disasters**Credit: 3 | Lecture: 3**

This course studies the topics of mass wasting, flooding, earthquakes, hurricanes and others, and evaluates various natural disaster data and statistics. It provides a forum to discuss, describe and improve our understanding of human interactions with the physical environment.

Prerequisites: GEOL 1303 or ENSC 3333

GEOL 4345 Structural Geology**Credit: 3 | Lecture: 3**

Description, interpretation, and classification of geologic structures and their origin.

Prerequisites: GEOL 1303

Corequisites: GEOL 4145

GEOL 4375 Petroleum Geology**Credit: 3 | Lecture: 3**

This course studies the topics of the "petroleum system", origin and migration of hydrocarbons, reservoirs, traps and seals, sedimentary basins and some of the most commonly used methods in exploration and development.

Prerequisites: GEOL 1303

GEOL 4379 Internship in Environmental Geology**Credit: 3 | Lecture: 3**

Supervised work experience in an approved private firm or government agency. Written and oral reports required.

GEOL 4389 Independent Study in Geology**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean

GEOL 4391 Selected Topics in Geology**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

HADM Healthcare Administration

HADM 3311 Foundations of Healthcare Administration Leadership**Credit: 3 | Lecture: 3 | Lab: 0**

The administration of health care services and basic principles of organization for patient care including financial, manpower and systems development and control considerations in meeting health requirements at community, state, regional and national levels. This course is also an examination of leadership in healthcare administration.

HADM 3322 Financial Dimensions of Healthcare Administration I**Credit: 3 | Lecture: 3**

This course is designed to teach the student the ability to understand and analyze the financial performance of healthcare organizations and various techniques associated with financial decisions required in the operation of various healthcare entities. Also, the student shall learn the various aspects of finance which determines the financial results of a healthcare organization.

HADM 3333 Healthcare Economics**Credit: 3 | Lecture: 3**

This course is designed to familiarize the students with the institutional features and the current trends in the rapidly changing healthcare market. Students will learn to apply the basic tools of microeconomics to issues in healthcare policy and management. Economic concepts relevant for healthcare managers will be examined such as analysis of demand and supply of healthcare goods and services; the role of health insurance and healthcare financing; market failure and the need for government intervention in healthcare markets; and initiatives to improve population health.

HADM 3351 Physician Group Practice Management**Credit: 3 | Lecture: 3**

Acquaints the student with the management issues of physician group practice, including insurance billing, personnel management, marketing, patient relations, financial management, venture planning, risk management, retirement planning, physician agreements, practice valuation, managed care, Medicare/Medicaid and legal/tax/professional liability.

Prerequisites: HADM 3311 or equivalent.

HADM 4312 Healthcare Planning and Marketing**Credit: 3 | Lecture: 3**

A review of concepts of planning and marketing and their application to the delivery of health care, assessment of community health needs and resources planning in an ambulatory or clinical environment.

Prerequisites: HADM 3311 and MKTG 3301, or equivalents.

HADM 4316 Medical Reimbursement**Credit: 3 | Lecture: 3**

Acquaints the student with medical terminology, procedure coding, diagnosis coding, medical management and documentation.

Prerequisites: HADM 3311 or equivalent.

HADM 4317 Healthcare Ethics, Values, and Social Responsibilities**Credit: 3 | Lecture: 3**

This course provides the student exposure to ethical issues in healthcare administration as well as business ethics, biomedical and research ethical issues, services to be offered, and distribution and allocation of resources. Additionally, this course will address important ethical issues and problems facing the U.S. health system.

HADM 4318 Managed Care**Credit: 3 | Lecture: 3**

Acquaints the student with managed care terminology, contracting for providers and payors, utilization review, case management, direct contracting, benefits structuring and organization structure.

Prerequisites: HADM 3311 or equivalent.

HADM 4326 Hospital Operations**Credit: 3 | Lecture: 3**

Concepts and methods needed to operate in a hospital. It will also provide an understanding of the impact of licensing, regulation, finance and billing, supply, operation, the different professions, risk management, compliance, engineering and physical plant, and labor relations activities in healthcare institutions, with an emphasis on organization, effectiveness, productivity and profitability.

Prerequisites: HADM 3311 or equivalent.

HADM 4332 Legal Dimensions of Healthcare Administration**Credit: 3 | Lecture: 3**

Legal aspects of the doctor-patient-nurse-other health professional relationships; individual, corporate and institutional liability and responsibility.

Prerequisites: HADM 3351 or equivalent.

HADM 4341 HR in Healthcare Administration**Credit: 3 | Lecture: 3**

Concepts and methods needed to plan, forecast, recruit, train, develop, maintain and evaluate health manpower.

Prerequisites: HADM 3311 or equivalent

HADM 4343 Introduction to Public Health**Credit: 3 | Lecture: 3**

Provides the student a comprehensive introduction to the essential concepts, values, principles, and practice of public health and the relationship of public health to the complex U.S. health care delivery system. Familiarizes the student with public health practice in a number of settings including government, private sector, and community organizations. Addresses important health issues and problems facing the US public health system.

HADM 4351 Financial Dimensions of Healthcare Administration II**Credit: 3 | Lecture: 3**

Analysis of the financial framework within which health care organizations and facilities operate, sources and flow of funds, cost information systems and capital budgeting.

Prerequisites: FINC 3331 and HADM 3311, or equivalents.

HADM 4379 Internship in Healthcare Administration**Credit: 3 | Lecture: 3**

Supervised field experience with an approved public or private health facility or physician clinic.

Prerequisites: HADM 4316 and approval of program director.

HADM 4389 Independent Studies in Healthcare Administration**Credit: 3 | Lecture: 3**

Independent directed study in Healthcare Administration.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

HADM 4391 Selected Topics in Healthcare Administration**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

HIST History

HIST 1301 United States History I**Credit: 3 | Lecture: 3 | Lab: 0**

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. Includes the study of pre-Columbian, colonial, revolutionary, early national, slavery, sectionalism, and the Civil War/Reconstruction eras. Themes may 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**Credit: 3 | Lecture: 3 | Lab: 0**

A survey of the social, political, economic, cultural, and intellectual history of the United States from the Civil War/Reconstruction era to the present. Examines industrialization, immigration, world wars, the Great Depression, Cold War and post-Cold War eras. Themes may 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**Credit: 3 | Lecture: 3 | Lab: 0**

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 2321 World Civilization I**Credit: 3 | Lecture: 3 | Lab: 0**

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 the impact of global exchange.

HIST 2322 World Civilization II**Credit: 3 | Lecture: 3 | Lab: 0**

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 3301 Ancient World**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of the development of early civilizations from Mesopotamia and Egypt through Greece and the fall of Rome in the West.

HIST 3303 Ancient Greece**Credit: 3 | Lecture: 3 | Lab: 0**

A study of classical Greece with particular attention to cultural, social, and political developments.

HIST 3305 Ancient Rome**Credit: 3 | Lecture: 3 | Lab: 0**

Intellectual, social, political, and cultural developments in the history of the ancient Roman Republic and Empire (c.300 B.C.E. to 476 C.E.).

HIST 3307 Medieval Europe**Credit: 3 | Lecture: 3 | Lab: 0**

The birth and first flowering of a truly European civilization, urban society, and an agricultural economy.

HIST 3309 Renaissance and Reformation**Credit: 3 | Lecture: 3 | Lab: 0**

Economic, political, intellectual, and religious developments in Europe from 1300 to 1600.

HIST 3311 Revolutionary Europe**Credit: 3 | Lecture: 3 | Lab: 0**

The Scientific Revolution and Enlightenment tradition, the French and Industrial Revolutions, the birth of ideologies, and state building.

HIST 3313 Modern Europe**Credit: 3 | Lecture: 3 | Lab: 0**

An examination of the major developments within European culture, politics, society, and thought since 1815.

HIST 3316 Historical Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to the History major. Focus on developing analytical skills reading both historical documents and scholarship written by historians.

HIST 3317 Introduction to Latin American History**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of the history of Latin America from c. 1500 to the present. Introduces Latin American history.

HIST 3319 Colonial Latin America**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the history of Latin America during period of indigenous self-rule and colonial period.

HIST 3321 Modern Latin America**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of the development of Latin America from 19th century to the present.

HIST 3323 History of Mexico**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of the history of Mexico from Spanish conquest to the present.

HIST 3325 Colonial America**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to European exploration, conquest, and colonization in North America from c. 1500 to 1763.

HIST 3327 The New American Nation**Credit: 3 | Lecture: 3 | Lab: 0**

Emergence and development of a distinctly American society, politics, and national identity.

HIST 3329 Antebellum America**Credit: 3 | Lecture: 3 | Lab: 0**

A study of the United States from 1820 to 1860 with special emphasis on social and political developments.

HIST 3330 Civil War and Reconstruction**Credit: 3 | Lecture: 3 | Lab: 0**

The experience of Americans from the 1840s to the 1870s; their attempts to reconcile sectional and national identities.

HIST 3333 Growth of Industrial America**Credit: 3 | Lecture: 3 | Lab: 0**

Early growth of industrial capitalism and America's social and political response to it from the Civil War to World War I.

HIST 3335 U.S. in the Roaring 1920s**Credit: 3 | Lecture: 3 | Lab: 0**

Examines the modern transformation of the U.S. in this dynamic era through exploration of Prohibition, urban life, consumer culture, and a booming economy headed for collapse.

HIST 3337 U.S. during the Cold War**Credit: 3 | Lecture: 3 | Lab: 0**

Focus on U.S. Cold War political history and domestic upheavals of the 1960s and 1970s.

HIST 3340 Women in European History**Credit: 3 | Lecture: 3 | Lab: 0**

The psychological, social, and economic forces that contributed to the subordinate status of women in European society and an examination of feminist responses. Women's Studies Course.

HIST 3341 Women in American History**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of diversity within the historical gender-specific experience of women's participation in and contributions to the history of the United States. (Cross-listed with WGST 3341.)

HIST 3342 Introduction to Native American History**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of the history of Native Peoples in North America from the arrival of humans on the continent through the 20th century.

HIST 3345 Reel America I**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis of films and historical materials from the first half of the 20th century. Focus on cultural and social history. May include Women's Studies content.

HIST 3347 Reel America II**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis of films and historical material since 1945. Focus on cultural and social history. May include Women's Studies content.

HIST 3349 Modern Middle East**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to the history of the Middle East with a focus on the modern period and critically exploring the roots and development of modern conflicts in the region.

HIST 4301 Studies in European History**Credit: 3 | Lecture: 3 | Lab: 0**

Surveys important topics in European history. Topics vary; may be repeated for credit with permission of instructor.

HIST 4303 Reel Europe**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the cultural movements and political developments in European film. Film analysis will use historical documents, fiction, and political manifestos to understand cultural history.

HIST 4305 Nazi Cinema and Third Reich**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of the Third Reich through film and cultural artifacts and the concept of emotional engineering, juxtaposing recreation with complements of law and order.

HIST 4307 Holocaust: History, Literature, and Film**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the Holocaust from historical, psychological, and sociological perspectives.

HIST 4308 The Mexico Borderlands**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of Mexico's northern borderlands from Spanish settlement in the sixteenth century to the present. Explores the evolution of the region, and its impact on Mexico's development.

HIST 4309 Studies in Latin American History**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of important issues and regions in Latin America. Topics vary; may be repeated for credit with permission of instructor.

HIST 4310 Latin America and the United States**Credit: 3 | Lecture: 3 | Lab: 0**

Explores the complex relationship between Latin America and the United States over the two centuries between 1800 and 2000.

HIST 4311 Studies in Native American History**Credit: 3 | Lecture: 3 | Lab: 0**

Surveys important topics in Native American History. Topics vary; may be repeated for credit with permission of instructor.

HIST 4312 Studies in Early American History**Credit: 3 | Lecture: 3 | Lab: 0**

Surveys important topics in early American history from the 15th through 18th centuries. Topics vary; may be repeated for credit with permission of instructor.

HIST 4313 Studies in U.S. History**Credit: 3 | Lecture: 3 | Lab: 0**

Surveys important topics in United States history. Topics vary; may be repeated for credit with permission of instructor.

HIST 4315 Studies in African American History**Credit: 3 | Lecture: 3 | Lab: 0**

Surveys important topics in African American history. Topics vary; may be repeated for credit with permission of instructor.

HIST 4318 The Salem Witchcraft Crisis**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the origins, progress, and outcomes of the witchcraft crisis that overwhelmed Salem, Massachusetts in 1692.

HIST 4319 U.S. Labor History**Credit: 3 | Lecture: 3 | Lab: 0**

Major changes in the U.S. economy, production technology, and social movements rooted in workplaces from the 19th century to the present.

HIST 4321 The U.S. and World War II**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of the role of the U.S. in World War II and exploration of the nature of combat, the home front, and cultural remembrance.

HIST 4323 The Vietnam War in Film**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the Vietnam War in U.S. film. Consists of class discussion drawn from film, memoirs, popular culture, and historical background. Traces intersection of fact and fiction following the Vietnam War.

HIST 4325 Studies in Middle Eastern History**Credit: 3 | Lecture: 3 | Lab: 0**

Surveys important topics in Middle Eastern history. Topics vary; may be repeated for credit with permission of instructor.

HIST 4326 Middle East and the United States**Credit: 3 | Lecture: 3 | Lab: 0**

Surveys major political, socioeconomic, and cultural changes in the relationship between the Middle East and the West from the rise of Islam to the present with an emphasis on Islam's encounter with the United States.

HIST 4328 Palestinian-Israeli Conflict**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of the roots of the Palestinian-Israeli conflict through a comprehensive and critical survey of its historical, religious, and political background as well as elusive resolution.

HIST 4329 History of Feminism**Credit: 3 | Lecture: 3 | Lab: 0**

A survey of the development of those reform movements and individuals shaping the growth of feminism in the 19th- and 20th-century U.S. and the world. May focus on a particular aspect of historical feminism. Topics vary; may be repeated for credit with permission of instructor. Women's Studies Course. (Cross-listed with WGST 4329.)

HIST 4391 Selected Topics in History**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

HLTH Fitness and Human Performance

HLTH 2110 Team Games and Sports**Credit: 1 | Lecture: 1 | Lab: 0**

Practical-based instruction, skill learning, demonstration, rules, and organizations of various team sports used to promote activity in secondary physical education classes.

HLTH 2113 Individual Games and Sports**Credit: 1 | Lecture: 1 | Lab: 0**

Practical-based instruction, skill learning, demonstration, rules, and organizations of various individual sports used to promote activity in secondary physical education classes.

HLTH 2115 Innovative Games and Sports**Credit: 1 | Lecture: 1 | Lab: 0**

Practical-based instruction, skill learning, demonstration, rules, and organizations of unique or non-traditional games and sports used to promote activity in secondary physical education classes.

HLTH 2301 Introduction to Exercise Science**Credit: 3 | Lecture: 3 | Lab: 0**

An introduction to the primary and secondary disciplines within exercise and health science with particular emphasis on early career development, goals, and academic planning.

HLTH 2303 Personal Health and Fitness**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to the key components of a healthy lifestyle including nutrition, exercise, behavioral modification, and physical activity. Course will include lecture and activity-based learning.

HLTH 3301 Health, Emergency Care and First Aid**Credit: 3 | Lecture: 3 | Lab: 0**

Emergency care for victims of sudden illness or injury; etiology of accidents; current safety concerns and practices. Basic Red Cross and CPR competencies.

HLTH 3302 Health and Physical Education - EC-6 Survey**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of the health and physical education information required by core subjects EC-6 teacher. Covers specific material from the Texas State Board for Educator Certification and prepares students for certification exams.

HLTH 3303 Nutrition and Weight Management**Credit: 3 | Lecture: 3 | Lab: 0**

Study of relationship among nutrition, exercise, and weight control and their role in health and performance. Techniques for dietary analysis.

HLTH 3304 Principles of Physical Fitness**Credit: 3 | Lecture: 3 | Lab: 0**

Role of exercise in the development of health and fitness. Techniques for exercise prescription, injury prevention, strength, cardiovascular endurance, and flexibility.

HLTH 3309 Evidence-Based Practice**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to the philosophy and methodology of evidence-based practice with a particular emphasis on critically appraising and integrating research findings into exercise prescriptions.

HLTH 3315 Health Promotion Programs**Credit: 3 | Lecture: 3 | Lab: 0**

The purposes, methods, and objectives of health promotion programs in business and industry.

HLTH 3316 Applied Kinesiology**Credit: 3 | Lecture: 3 | Lab: 0**

The study of functional anatomy with relevance to the kinesiology of exercise, exercise movements, and sports participation.

HLTH 3317 Motor Development and Learning**Credit: 3 | Lecture: 3 | Lab: 0**

Fundamental principles associated with motor development, task-based/skill proficiency, and movement activities in learning environments for children and adults.

HLTH 3318 Introduction to Community Health**Credit: 3 | Lecture: 3 | Lab: 0**

Provides a broad overview of community health with emphasis on governmental organizations that influence public health, epidemiology, community organization and health planning.

HLTH 3319 Introduction to Public Health**Credit: 3 | Lecture: 3 | Lab: 0**

This course will present an introduction to major issues of health and health care in the United States - what they are, what determines them, and how they can be altered. Topics covered include: an introduction to the history, science and principles of public health, principles and tools of evidence-based public health, and an overview of the US health care system.

HLTH 3320 Health Inequalities**Credit: 3 | Lecture: 3 | Lab: 0**

Focuses on racial/ethnic and socioeconomic disparities including how income, education, neighborhood conditions, access to health care, and other community factors shape health opportunities.

HLTH 4301 Physiology of Exercise**Credit: 3 | Lecture: 3 | Lab: 0**

Study of the physiological bases of exercise with emphasis on the adaptation of the systems of the body to stress.

HLTH 4302 Biomechanics**Credit: 3 | Lecture: 3 | Lab: 0**

Biomechanical analysis of human motion based on anatomical, physiological, and mechanical principles. Role of mechanics in human performance. A background in algebra and trigonometry is recommended.

HLTH 4305 Seminar in Sports Medicine**Credit: 3 | Lecture: 3 | Lab: 0**

Approaches to injury prevention by conditioning and utilization of proper equipment. Diagnosis and rehabilitation of common sports injuries. Laboratory exercises.

HLTH 4307 Peak Performance**Credit: 3 | Lecture: 3 | Lab: 0**

How to improve performance by enhancing strength, flexibility, speed, power, agility, and coordination.

HLTH 4308 Resistive Exercise: Theory and Practice**Credit: 3 | Lecture: 3 | Lab: 0**

Laboratory and lecture activities relating to appropriate training techniques for traditional, Olympic, and rehabilitative strength exercises. The development of advanced periodization models.

HLTH 4309 Research Practicum**Credit: 3 | Lecture: 0 | Lab: 0**

An introduction to human subject research, including data collection, reduction, and analysis. Students will participate in abstract and manuscript preparation.

Prerequisites: HLTH 4370, Instructor permission required.

HLTH 4311 Methods in Physical Education I**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to instructional concepts, methods, and technologies in teaching and administering secondary-level physical education programs.

HLTH 4312 Methods in Physical Education II**Credit: 3 | Lecture: 3 | Lab: 0**

Advanced instructional concepts, methods, and technologies in teaching and administering secondary-level physical education programs.

HLTH 4370 Undergraduate Practicum**Credit: 3 | Lecture: 0 | Lab: 0**

The application of test procedures utilized for general fitness assessment testing. Permission of instructor required. Prerequisite: HLTH 4301

Prerequisites: HLTH 4301

HLTH 4379 Internship**Credit: 3 | Lecture: 0 | Lab: 0**

Work-related learning experience in the application of exercise health promotion programs to teaching, clinical or research activities. Permission of instructor required.

Prerequisites: Completion of or concurrent enrollment in HLTH 3303, HLTH 3304, HLTH 4301, HLTH 4302, HLTH 4305, HLTH 4308, and HLTH 4370

HLTH 4389 Independent Study in Health**Credit: 3 | Lecture: 0 | Lab: 0**

Prerequisite: Approval of independent study director. Individual projects and activities in development of skills related to health.

HLTH 4391 Selected Topics in Health**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered.

HUMN Humanities

HUMN 1301 Humanities**Credit: 3 | Lecture: 3 | Lab: 0**

An interdisciplinary, multi-perspective assessment of cultural, political, philosophical, and aesthetic factors critical to the formulation of values and the historical development of the individual and of society.

HUMN 3350 Art 1900-1950**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. This course examines the art of Europe, the United States, and Latin America in the first half of the twentieth century.

Significant topics include the birth and growth of modernism, the impact of the world wars on the artistic communities of the regions studied, and major movements such as Cubism, Dadaism, Fauvism, Impressionism, and Surrealism.

HUMN 3351 Art 1950-Present**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. This course examines the art of Europe, the United States, and Latin America in the first half of the twentieth century. Significant topics include art in the aftermath of World War II, conceptualism, performance art, video art, feminist art, and the contemporary art market. (Cross-listed with ARTS 3351.)

HUMN 3355 Latin American Art of the Twentieth Century**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. This course will examine the art of 20th century Latin America through a series of major modern art centers, including Mexico City, Havana, Buenos Aires, Rio de Janeiro, Bogota, and Caracas. (Cross-listed with ARTS 3355.)

HUMN 3356 Mexican Art, 1500-Present**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. This course will explore the history of visual art in Mexico beginning with the period of encounter between native populations of that region of the Americas and the European explorers who arrived in the Americas in the late 15th century and continuing through the colonial, independence, and modern era. (Cross-listed with ARTS 3356.)

HUMN 3357 History and Theory of Photography
Credit: 3 | Lecture: 3 | Lab: 0

Art History. Study of history and function of photography from its development in the fine arts to present-day significance of mechanical and digital reproduction. (Cross-listed with ARTS 3357.)

HUMN 3374 Critical Inquiry**Credit: 3 | Lecture: 3 | Lab: 0**

Students will engage in critical research in contemporary humanities that attends to diverse scholarship on race, class, gender, and ethnicity. Students will emerge from course equipped with current knowledge on theorizing selfhood, community, and/or culture.

HUMN 3375 Ideas in Transition**Credit: 3 | Lecture: 3 | Lab: 0**

This class traces an idea's shifting significance throughout history. Themes will be studies using philosophic, literary, and artistic works. Themes may include soul-brain-machine, sex and love, gender, justice, economy and society, technology, identity and community. Topics vary; may be repeated for credit in the same or subsequent semesters. Different topics might be counted toward different concentrations for HUMN students. Refer to the Concentration areas in the Humanities B.A. section of the catalog.

HUMN 4308 Perspectives in Women's and Gender Studies**Credit: 3 | Lecture: 3 | Lab: 0**

General information on the wide range of issues related to the status of women. Women's Studies Course. (Cross-listed with PSYC 4308.)

HUMN 4312 Art of Ancient Iraq and the Near East**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. The art, history, and culture of Ancient Iraq and the Near East. Topics include prehistoric art, state formation, ideology, and empire. (Cross-listed with ARTS 4312.)

HUMN 4315 Art of the Ancient Greek World**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. The art, history, and culture of the ancient Greek world from the Bronze Age through the Hellenistic period. Topics include appropriation, cultural heritage, and gender studies. (Cross-listed with ARTS 4315.)

HUMN 4322 Roman Art**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. The art, history, and culture of the ancient Roman world from the foundation of Rome (753 B.C.E.) through Constantine (337 C.E.). An investigation of architecture, sculpture, painting and other arts, especially as they relate to the social and political developments of ancient Italy and the Mediterranean. (Cross-listed with ARTS 4322.)

HUMN 4326 Studies in Film**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of film texts from a topical, generic, or historical perspective. Includes introduction to theory. Topics vary; may be repeated for credit with permission of instructor.

HUMN 4364 Museum Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. This course introduces students to the theory and operations of fine arts museums, including strategies of display, collection management, accessions, and public relations. The course will include visits to local gallery and museum spaces. (Cross-listed with ARTS 4364.)

HUMN 4366 Propaganda and Persuasive Images**Credit: 3 | Lecture: 3 | Lab: 0**

Art History. This course examines the theory and use of propagandistic and persuasive imagery with particular focus on the twentieth century. This propaganda of World War II will comprise a major unit, as well study of modern photomanipulation and advertising strategies. (Cross-listed with ARTS 4366.)

HUMN 4372 Seminar in Women's Studies**Credit: 3 | Lecture: 3 | Lab: 0**

An advanced course in Women's Studies, designed to acquaint the student with contemporary issues in feminist scholarship across the disciplines. Prerequisite: Any previous Women's Studies course. (Cross-listed with HUMN 5732, PSYC 4372, and PSYC 5732.)
Prerequisites: Any previous Women's Studies course.

HUMN 4389 Independent Study in Humanities**Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required.

HUMN 4391 Selected Topics in Humanities**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by a specific title each time the course is offered. Topics vary; may be repeated for credit with permission of instructor.

INST Instructional Technology**INST 3313 Survey of Instructional Technologies****Credit: 3 | Lecture: 3 | Lab: 0**

Combines hands-on lab assignments and discussions through a student-centered approach. Students work with faculty to identify technology-related learning requirements, learning strategies and assessment criteria based on students' prior skills and interests. Students gain experience in the application of productivity tools, educational software, presentation graphics, multimedia and telecommunication technologies.

Prerequisites: Basic computer literacy.

INST 4355 eLearning**Credit: 3 | Lecture: 3 | Lab: 0**

Apply internet knowledge and skills to design and develop learning environments on the internet. Apply current research-based strategies for effective web-enhanced learning and the assessment of that learning. Demonstrate safe, legal and healthy use of the internet.

Prerequisites: Basic computer literacy.

INST 4357 Multimedia for Instruction**Credit: 3 | Lecture: 3 | Lab: 0**

Introduces students to topics of multimedia for the web. Students will learn how to plan a multimedia web site and design the user interface. Focus is on five multimedia elements: text, graphics, animation, sound, and video. Participants will design multimedia elements appropriate for integration in online learning environments.

INST 4365 Web Development**Credit: 3 | Lecture: 3 | Lab: 0**

Examines the design, development and distribution of electronic documents. Participants will learn the basic components of how web documents are created, various design approaches for a variety of user-friendly tools for web page development, how to include eye-catching graphics, interactive multimedia components and sophisticated programming in a web page.

Prerequisites: Basic computer literacy.

INST 4389 Independent Study in Instructional Technology**Credit: 3 | Lecture: 3 | Lab: 0**

Prerequisites: Approval of instructor and associate dean.

INST 4391 Selected Topics in Instructional Technology**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by title each time course is offered.

ISAM Information Systems Administration and Management

ISAM 1305 Business Computer Applications**Credit: 3 | Lecture: 3**

Computer terminology, hardware, software, operating systems and information systems relating to the business environment. The main focus of this course is on business applications of software, including word processing, spreadsheets, databases, presentation graphics and business-oriented utilization of the internet.

ISAM 3303 Information Systems for Management**Credit: 3 | Lecture: 3**

Fundamentals of information systems to assist management in the operation and control of complex organizations. Includes IS for decision making and problem solving, IS for competitive advantage, enterprise resource planning systems and database processing. Course contains numerous hands-on, business-oriented IS projects.

Prerequisites: ISAM 1305 or equivalent.

ISAM 3304 Introduction to Business Applications Programming**Credit: 3 | Lecture: 3**

This course covers fundamental concepts used in the design and development of business applications. It describes program methodologies, control techniques and the development of programs using a high-level business-oriented programming language. Includes numerous hands-on assignments.

ISAM 3314 Applications Development with Java**Credit: 3 | Lecture: 3**

The course covers the development of Java applications/applets running in the Java Runtime Environment. It demonstrates important object-oriented programming concepts such as data abstraction, encapsulation, polymorphism and inheritance. Includes numerous hands-on assignments.

Prerequisites: ISAM 3304 or equivalent.

ISAM 3331 Introduction to Business Database Applications Development**Lecture: 0 | Lab: 1**

Overview of database concepts and techniques (database models, modeling techniques, normalization, etc.) used in the design of business databases. The course covers development, manipulation and maintenance of a business database (such as sales, inventory, customer, employee, etc.) with a relational database management system. Includes numerous hands-on class assignments.

Prerequisites: ISAM 3303 or equivalent.

Corequisites: ISAM 3303 or equivalent

ISAM 3333 Applications Development with C#**Credit: 3 | Lecture: 3**

The course covers graphical user interface concepts and programming constructs related to object-oriented programming, exception handling, forms, multidimensional arrays, and data extrapolation. Includes numerous hands-on assignments.

Prerequisites: ISAM 3304 or equivalent.

ISAM 4331 Introduction to Business Internet Applications Development**Credit: 3 | Lecture: 3**

The role of internet, intranets, and internet tools in business; design and development of business-oriented web applications using modern web technology standards, languages, and tools. Includes numerous hands-on assignments.

Prerequisites: ISAM 3304 or equivalent.

ISAM 4332 Advanced Business Internet Applications Development**Credit: 3 | Lecture: 3**

An advanced-level course on the design and development of Internet applications using modern Web technology standards, languages, and tools. Topics include client-side scripts, server-side processing, Web forms processing, use of databases, and dynamic Web applications. Includes numerous hands-on assignments. The course includes completion of a professional certification in Internet Application Development.

Prerequisites: ISAM 3331, 3332, 4331 or equivalents.

ISAM 4360 Advanced Business Spreadsheet Applications Development**Lecture: 3**

This course covers advanced topics related to the design, development and maintenance of a business spreadsheet application. These topics include the following: advanced techniques for working with formulas, functions and formatting; what-if analysis, creating charts and working with multiple worksheets; creating, sorting and querying a table; working with SmartArt and Images, etc. Includes numerous hands-on assignments. Coursework requirements include Microsoft Excel certification exam.

Prerequisites: ISAM 3303 or equivalent.

ISAM 4362 Advanced Business Database Applications Development**Lecture: 0 | Lab: 1**

This course covers advanced topics related to the design, development and maintenance of a business database application. Also covered are advanced techniques for query formulation, information retrieval and report generation. Includes numerous hands-on assignments. Coursework requirements include Microsoft ;MySQL; certification exam.

Prerequisites: ISAM 3331 or equivalent

ISAM 4365 Analysis and Design of Information Systems**Credit: 3 | Lecture: 3**

This course covers the systems development life cycle, systems development methodologies, systems requirement analysis, user interface designs, program design methodologies, and system architecture. Includes hands-on assignments using computer-aided software engineering and project management tools.

Prerequisites: ISAM 3331 or equivalent.

ISAM 4366 Introduction to Computer Networks Management**Credit: 3 | Lecture: 3**

The course covers network hardware, software, protocols and administration. It includes internetworking, TCP/IP protocols, IP addressing, routing, and network switching. Includes numerous hands-on assignments.

Prerequisites: ISAM 3303 or equivalent.

ISAM 4367 Advanced Computer Network Protocols**Credit: 3 | Lecture: 3**

This course covers advanced networking topics such as VLANs, spanning tree protocol, routing protocols, packet filtering, address translation, the new generation of IP addressing, wireless networks, and network design and implementation. Includes numerous hands-on lab experiments.

Prerequisites: ISAM 4366 or equivalent.

ISAM 4379 Internship in Management Information Systems**Credit: 3 | Lecture: 3**

Supervised work experience related to management information systems with an approved business, industrial firm, or governmental agency; written and oral reports as required.

Prerequisites: Bachelor's degree candidacy, completion of at least 18 hours of B.S. in M.I.S. required computing courses, and approval of academic adviser, faculty chair and associate dean.

ISAM 4389 Independent Studies in Management Information Systems**Credit: 3 | Lecture: 3**

Independent directed study in Management Information Systems.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

ISAM 4391 Selected Topics in Management Information Systems**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

ITEC Information Technology

ITEC 1310 Introduction to Information Technology

Credit: 3 | Lecture: 3 | Lab: 0

This course is an introduction to the concepts and technologies used in the field of Information Technology and ethical issues related to the impact of Information Technology. This class will also prepare students for CompTIA A+ certification exams.

ITEC 2313 Scripting I

Credit: 3 | Lecture: 3 | Lab: 0

This course will introduce practical script programming for computer programming tasks, data manipulation and decision support. Students will be introduced to the structure of scripting languages with emphasis on Python. Laboratory instruction.

ITEC 2351 Web Fundamentals

Credit: 3 | Lecture: 3 | Lab: 0

Introduces the basic languages and tools involved in web publishing. Topics covered will include core publishing technologies such as HTML5, CSS3 and JavaScript. This course also covers the use of Web technology in solving IT problems. Students will build and publish a Web site. The technologies used will include HTML5, CSS5, and JavaScript. Laboratory instruction.

ITEC 2381 Forensics Fundamentals

Credit: 3 | Lecture: 3 | Lab: 0

Introduces the study of digital forensics. Coursework focuses on obtaining forensics evidence, validating image file integrity, data storage methods, deleted file recovery methods, imaging drives, and basic evidence analysis. Laboratory instruction.

ITEC 3312 Scripting II

Credit: 3 | Lecture: 3

This course will build on basic script programming knowledge. Topics will include: problem solving using built-in functions and lambdas; data structures such as lists, tuples, sets, and dictionaries; comprehensions and generators; visualization; and processing data using databases and files including binary, text, and CSV files, etc. Students will work with Python. Laboratory instruction.

Prerequisites: ITEC 2313 or CSCI 1470 or instructor approval.

ITEC 3335 Database Development

Credit: 3 | Lecture: 3

Introduces database theory, design and implementation. Topics covered include business data modeling using the entity-relationship (ER) model, logical database design using the relational data model and database querying using structured query language (SQL). Database design issues are studied in the context of solving business problems. Laboratory instruction.

Prerequisites: ITEC 3312

ITEC 3365 Network Fundamentals

Lecture: 3

Introduces the architecture, structure, functions, components and models of the internet and computer networks. Describes and details the OSI and TCP/IP models. The principles of IP addressing and fundamentals of ethernet, media and operations are introduced. This course also covers LAN topologies and basic configuration of routers and switches. Laboratory instruction.

ITEC 3388 Cyber Security I**Credit: 3 | Lecture: 3**

This course is the first of a two-course sequence which will cover the ten different security areas (a.k.a. domains) considered important to becoming an information systems security professional. This course will introduce an overview of the fundamental technology, principles and practices of security operations. Students will be introduced to the concepts of information security, risk management, security governance, identification, methods and technologies, intrusion detection systems. Students will also learn about the principles of security architecture and design, and physical and environmental security. They will also be introduced to the notions of telecommunication and network security.

Prerequisites: CENG 3331 or CINF 3331 or ITEC 3365 or CSCI 1471.

ITEC 4189 Independent Study in Information Technology**Credit: 1 | Lecture: 1**

Prerequisites: Approval of instructor, chair and associate dean.

ITEC 4195 Cooperative Education Work Term**Credit: 1 | Lecture: 1**

Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description).

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

ITEC 4313 Emerging Information Technology**Credit: 3 | Lecture: 3**

Today's business environment is often called the information age and knowledge economy. Today, IT is not just the back-office enabler rather is of strategic importance to any enterprise. In order to meet the challenges of this new environment this course provides an introduction to strategic management of information systems in light of the emerging technologies and their usage in the enterprise environment.

ITEC 4335 Database Administration**Credit: 3 | Lecture: 3**

This course focuses on providing coverage of DBA tasks including creating database environments, performance, data integrity, security, backup/recovery, data and storage management, tools and other related concepts fundamental to administration of databases. Laboratory instruction.

Prerequisites: ITEC 3335.

ITEC 4342 Information Technology Project Management**Credit: 3 | Lecture: 3**

The course examines the defining characteristics of technology-oriented projects, especially involving the development of software intensive systems, and introduces students to a variety of project management techniques that can be applied in a technology-oriented project context. Project management issues including estimation, risk-assessment, quality management, monitoring and control will be discussed. While technology-intensive projects are similar in some respects to other types of projects, they also pose unique challenges for the managers and organizations that undertake them. Technology-intensive project management is particularly challenging because of several factors including: (1) the rapid pace of technological changes occurring in the IS and IT fields, (2) the invisible nature of software, (3) the ever-present pressure to add new features and functionality to systems, and (4) the difficulty of managing the organizational changes that accompany most technology implementations. This course gives students an understanding of the most common processes, tools, techniques, and theories that are necessary to manage technology-intensive projects.

Prerequisites: ITEC 3312 or instructor approval.

ITEC 4351 Web Design**Credit: 3 | Lecture: 3**

This course will cover advanced Web publishing skills as well as introduce broader publishing topics relevant to publishers, developers, designers and webmasters. The course will also cover topics such as issues related to the practice of user experience. Students will also learn fundamental webmaster topics such as web analytic, search engine optimization and other web tools. The technologies used will include HTML5, CSS3, JavaScript and jQuery. Laboratory instruction.

Prerequisites: ITEC 2351

ITEC 4352 Backend Web Development**Credit: 3 | Lecture: 3**

The course will focus on the server-side of Web development and the building dynamic database-driven web sites. Students will learn how to structure content for Websites in a database and how to retrieve that data and manipulate and place it in pages. Laboratory instruction.

Prerequisites: ITEC 3335, ITEC 4351.

ITEC 4365 Network Administration**Credit: 3 | Lecture: 3**

Describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch. By the end of this course, students will not only be able to configure and troubleshoot routers and switches but also will be able to resolve common issues with RIPv1, RIPv2, single area and multi area OSPF, virtual LANs and Inter-VLAN routing in both IPv4 and IPv6 networks. Laboratory Instruction.

Prerequisites: ITEC 3365.

ITEC 4366 Computer Security and Disaster Recovery**Credit: 3 | Lecture: 3**

This course covers general concepts of information systems security and disaster recovery. Topics covered include physical and logical security threats, security vulnerabilities, risk analysis, types of attacks, access control and user authentication, firewalls, database security, intrusion prevention systems and intrusion detection systems, and network security concepts (wired and wireless). This course also provides a managerial perspective on computer security and prepares students for managing information systems security within organizations. Various organizational security policies and mechanisms are discussed. Students are taught to identify critical business systems and functions, data storage and recovery sites, and to develop and test a disaster recovery plan.

ITEC 4379 Internship in Information Technology**Credit: 3 | Lecture: 3**

Supervised work experience each week in an approved Information Technology field.

Prerequisites: Approval of faculty chair and associate dean required.

ITEC 4381 Computer Forensics**Lecture: 3**

This course examines the various media and strategies of storing information. Students will learn different aspects of computer crime and ways in which to protect, uncover and understand digital evidence. Students will gain experience using hardware and software tools to perform investigations. Laboratory instruction.

Prerequisites: CSCI 1471 or CINF 1370 or ITEC 2381.

ITEC 4382 Registry & Internet Forensics**Lecture: 3**

Introduces the registry structure and focuses on creating preliminary reports, searching for evidence in the NTuser.dat, SAM, SYSTEM, SOFTWARE and SECURITY artifacts to analyze user behavior on the system. Laboratory instruction.

Prerequisites: ITEC 2381 or instructor approval.

ITEC 4383 Cyber Security II**Credit: 3 | Lecture: 3**

This course is the second of a two-course sequence which will cover the ten different security areas (a.k.a. domains) considered important to becoming an information systems security professional. It presents an overview of technology, principles and practices of security operations. The students will be introduced to the concepts of Cryptography, public key infrastructure, quantum cryptography, secure protocols, different attack types, business continuity planning and management. The students will also learn about secure software development approaches, database concepts and security issues, malware types and attacks. They will be introduced to policy and procedure related to- evidence collection, incident handling etc.

Prerequisites: ITEC 3388.

ITEC 4388 Senior Project in Information Technology**Credit: 3 | Lecture: 3**

May be taken only during the final semester before graduation. Registration is restricted to students with an approved Candidate Plan of Study. Students design and implement a solution to a realistic IT project. Emphasis will be on practical experience, professional behavior, ethics and teamwork. Students prepare written reports and give oral presentations.

ITEC 4389 Independent Study in Information Technology**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean.

LEGL Legal Studies

LEGL 2301 Legal Environment of Business**Credit: 3 | Lecture: 3**

Major content areas include general principles of law and the legal system, contracts, sales, commercial paper, bank-customer relations, agency and property.

LEGL 3301 Business Law**Credit: 3 | Lecture: 3 | Lab: 0**

Course reviews various areas of law that directly affect business operations. This course examines the nature and source of law and the legal system as well as understanding contracts, courts and procedures, sales, commercial paper and bank-customer relations as well as agency and community property.

LEGL 3307 Legal Writing and Appellate Process**Credit: 3 | Lecture: 3**

Principles of legal drafting and case analysis; preparation of legal documents and rules of appellate process.

Prerequisites: LEGL 3351 or equivalent

LEGL 3313 Introduction to Law and the American Legal System**Credit: 3 | Lecture: 3**

Overview of the American legal system and the structure of law and legal institutions in the United States.

LEGL 3321 Logic**Credit: 3 | Lecture: 3**

An investigation of traditional approaches to correct and incorrect reasoning.

LEGL 3342 American System of Trial By Jury**Credit: 3 | Lecture: 3**

This course provides an analysis of process of trial by jury from the initial examination of the jury panel through closing arguments. Emphasis will be placed on the preparation of a case to be tried in small claims court.

LEGL 3351 Legal Research**Credit: 3 | Lecture: 3**

The law library, research, briefing and case preparation through the use of digests, encyclopedias and other research sources.

LEGL 3353 Introduction to the Texas Rules of Civil Procedure**Credit: 3 | Lecture: 3**

This course will cover the rules of civil procedure that govern the drafting of the plaintiff's original petition through the drafting of discovery.

LEGL 4189 Independent Studies in Legal Studies**Credit: 3 | Lecture: 3**

Independent directed study in Legal Studies.

*Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.***LEGL 4324 The U.S. Constitution and the Bill of Rights****Credit: 3 | Lecture: 3**

Study of the evolution of the U.S. Constitution from the passage of the Declaration of Independence to the present.

LEGL 4325 Legal Concepts for Human Resource Professionals**Credit: 3 | Lecture: 3**

This course provides students with a basic understanding of the federal laws governing the employee/employer relationship with emphasis on non-discrimination, wage and hour laws, and employee benefits.

LEGL 4332 Legal Dimensions of Healthcare Law**Credit: 3 | Lecture: 3**

Legal aspects of the doctor-patient-nurse-other health professional relationships; individual, corporate and institutional liability and responsibility. (Cross-listed with HADM 4332.)

LEGL 4352 Family Law and Procedure**Credit: 3 | Lecture: 3**

Study of the fundamental principles of the law of family relations, divorce, adoption, custody, marriage, juvenile, etc.; includes analysis of family law procedures, appropriate forms and pleadings.

LEGL 4353 Dispute Resolution**Credit: 3 | Lecture: 3**

Analysis of the various methods of resolving disputes between citizens outside the traditional adversarial system.

LEGL 4354 Property Transactions**Credit: 3 | Lecture: 3**

Study of the fundamental principles and procedures of law related to the acquisition, control and disposition of property.

LEGL 4355 Criminal Law and Procedure**Credit: 3 | Lecture: 3**

This course will introduce students to the substantive law of crime and punishment, the law of arrest through trial, and conviction and the constitutional protection involved in the process.

LEGL 4356 Torts**Credit: 3 | Lecture: 3**

Study of the principles of the law of torts focusing on learning the causes of action, the elements of each and how to recognize the causes of action given certain facts.

LEGL 4359 Wills, Probate and Estate Administration**Credit: 3 | Lecture: 3**

This course is designed to introduce the broad subject of estate planning, including basic will preparation and the drafting of statutory form powers of attorney, medical directives and medical powers of attorney. The various forms of estate administration in Texas will be studied.

LEGL 4361 Texas Consumer Law**Credit: 3 | Lecture: 3**

An analysis of the principle consumer protection statues in Texas and related federal laws. Special emphasis will be placed on The Texas Deceptive Trade Practices Act.

LEGL 4362 Elder Law**Credit: 3 | Lecture: 3**

This course will focus on a variety of legal issues related to the aging of America. The Texas law of guardianship will be reviewed in depth including the state specific certification requirements to become a registered professional guardian.

LEGL 4365 Mock Trial**Lecture: 3**

Students enrolled in this course will study and execute a complete mock trial based on an assigned civil or criminal case file published by the National Institute of Trial Advocacy. Students will also be required to perform a mock trial demonstration as part of the Annual Student Conference for Research and Creative Arts.

Prerequisites: LEGL 3342 or equivalent.

LEGL 4368 Seminar on the U.S. Constitution and Bill of Rights**Credit: 3 | Lecture: 3**

Field experience involving traveling to the National Constitution Center in Philadelphia to meet and study with the Center's staff of constitutional experts and to explore the historic sites such as Independence Hall.

LEGL 4375 Professional Development for Legal Studies Students**Credit: 3 | Lecture: 3 | Lab: 0**

This course is intended to be capstone course in the legal studies program to provide students with an understanding of the practice of law in Texas as well as non-traditional opportunities for student with a legal education; a final project will be assigned

Prerequisites: Course is taken in the last or next to the last semester in the legal studies program

LEGL 4379 Internship in Legal Studies**Credit: 3 | Lecture: 3**

Supervised field experience with an approved agency or office. Written and oral reports required.

Prerequisites: Approval of faculty adviser and program director.

LEGL 4389 Independent Studies in Legal Studies**Credit: 3 | Lecture: 3**

Independent directed study in Legal Studies.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

LEGL 4391 Selected Topics in Legal Studies**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

LEGL 5131 Legal Concepts for the Business Professional**Credit: 3 | Lecture: 3 | Lab: 0**

This course examines the legal implications of business transactions and will be of particular value to students seeking degrees in accounting, finance and business. Explores legal issues emphasized by the AICPA and other national professional organizations.

LITR Literature

LITR 2321 British Literature

Credit: 3 | Lecture: 3 | Lab: 0

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.

Prerequisites: WRIT 1301

LITR 2326 American Literature

Credit: 3 | Lecture: 3 | Lab: 0

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, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors for what they reflect and reveal about the evolving American experience and character.

Prerequisites: WRIT 1301

LITR 2341 Literature and Experience

Credit: 3 | Lecture: 3 | Lab: 0

The study of one of more literary genres including poetry, fiction, drama, and film.

Prerequisites: WRIT 1301

LITR 2371 Introduction to Creative Writing

Credit: 3 | Lecture: 3 | Lab: 0

Instruction and practical experience in techniques and genres of imaginative writing. May include lyric poetry, short fiction, drama, and/or creative nonfiction. Fulfills Core Creative Arts requirement.

Prerequisites: WRIT 1301 and WRIT 1302

LITR 3301 Literary Studies: Genres and Critical Perspectives

Credit: 3 | Lecture: 3 | Lab: 0

Introduction to the close study of literary and dramatic texts and issues affecting interpretation.

LITR 3302 Principles of Composition

Credit: 3 | Lecture: 3 | Lab: 0

Advanced study of the principles of composition with emphasis on grammatical theory and analysis; discourse theory; and the cognitive, rhetorical, and linguistic aspects of writing; emphasis on recent developments in theory.

LITR 3334 Mythology

Credit: 3 | Lecture: 3 | Lab: 0

Greco-Roman and other selected mythological texts important in world literature, such as Homeric or Akkadian epic, the Eddas, the stories of the Arthurian cycle, and the Native American myths.

LITR 3338 Modern Fantasy Literature

Credit: 3 | Lecture: 3 | Lab: 0

This course surveys the development of the fantasy genre in English and American literature from its origins in the late 19th c., through the works of Tolkien and on to contemporary fantasy authors such as George R.R. Martin. The course also looks at the ways fantasy has proliferated into popular culture, especially roleplaying games such as D&D and computer gaming.

LITR 3361 Shakespeare

Credit: 3 | Lecture: 3 | Lab: 0

Shakespeare's major plays and their production in the theatre of the English Renaissance.

LITR 3371 Creative Writing**Credit: 3 | Lecture: 3 | Lab: 0**

Practice and instruction in writing fiction, poetry, creative nonfiction, drama, and/or other genres. Exercises in creative process and workshop discussions of participants' work. Multi-genre survey (poetry, fiction, etc.) or single-genre topics course. May be repeated for credit with permission of instructor.

Prerequisites: WRIT 1301 and WRIT 1302

LITR 4301 Literary Theory**Credit: 3 | Lecture: 3 | Lab: 0**

Theories about the nature of verbal art and the relationship between literature and reality.

Prerequisites: LITR 3301

LITR 4304 Workshop in Poetics**Credit: 3 | Lecture: 3 | Lab: 0**

The language, formal strategy, and mechanical techniques of poetry. A practical sense of how poems work. Designed for teachers, readers, and writers of poetry.

Prerequisites: LITR 3301

LITR 4312 Chaucer**Credit: 3 | Lecture: 3 | Lab: 0**

The art of England's greatest narrative poet: Canterbury Tales, Troilus, and Criseyde.

LITR 4316 16th- and 17th-Century British Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Non-Shakespearean poetry, drama, and prose of early modern Britain, including selections from writers such as Wyatt, Marlowe, Spenser, Jonson, Donne, Wroth, Lanyer, Milton, and Marvell.

LITR 4318 Restoration and 18th-Century British Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Representative British texts and authors of the period 1660-1790, such as Dryden, Behn, Pope, Swift, Defoe, Johnson, and Boswell.

LITR 4320 The Romantic Movement in British Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Major Romantic poets and novelists: Coleridge, Wordsworth, Byron, Scott, Mary Shelley, Bronte, and others. Topics may include revolution and war, gender issues, rise of the individual, colonialism, exoticism, science, or art.

LITR 4321 Jane Austen**Credit: 3 | Lecture: 3 | Lab: 0**

An overview of the life and work of Jane Austen, focusing on major novels, such as *Pride and Prejudice*, and early works, such as *Lady Susan*, in relation to literary and cultural traditions of the period.

LITR 4322 Victorian Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Major Victorian essayists, poets, and novelists, including Tennyson, the Brontes, George Eliot, Gaskell, Stoker, and Wilde; literary responses to industrialization, empire, and class struggle; examination of social, artistic, and moral tensions in Victorian literature.

LITR 4324 Rise and Development of the British Novel**Credit: 3 | Lecture: 3 | Lab: 0**

Origins and development of the novel in English; major British novelists from the late 17th through the early 20th centuries, such as Behn, Defoe, Richardson, Austen, Dickens, Hardy, and Conrad.

LITR 4326 Early American Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Multicultural voices and texts from Native America, Spanish America, and African America; early dominant cultures of Puritans and Founders; spoken traditions, cultural history, and early modern literature.

LITR 4328 The American Renaissance**Credit: 3 | Lecture: 3 | Lab: 0**

The Romantic period of American literature featuring Transcendentalists, classic and popular fiction, slave narratives in context of antebellum culture; authors include Emerson, Poe, Hawthorne, Stowe, Douglass, Dickinson, Whitman, and others.

LITR 4330 American Realism and Naturalism**Credit: 3 | Lecture: 3 | Lab: 0**

Literature of social observation and criticism, psychological realism, effect of social and natural science on literary form, literature of American folkways. Authors may include Twain, Wharton, James, Chesnutt, and Crane.

LITR 4334 The American Novel**Credit: 3 | Lecture: 3 | Lab: 0**

Focus on development of form, style, and theme in American fiction; major and lesser-known novelists over two centuries.

LITR 4335 American Modernism**Credit: 3 | Lecture: 3 | Lab: 0**

Literary experimentation in context of international Modernism; expressions of social and cultural dislocation or search for order. Authors may include Eliot, Fitzgerald, Faulkner, and Hurston.

LITR 4336 Contemporary American Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Diverse writings from recent decades; topics addressed may include revisions of traditional narrative; conformity and counter-culture; postmodernism; re-imagining ethnic, gender, national or planetary identity. Authors may include Toni Morrison, Thomas Pynchon, Colson Whitehead, and Lydia Davis.

LITR 4338 American Minority Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Survey or in-depth focus on classic and contemporary texts for America's ethnic and/or gender minorities: African Americans, Native Americans, Mexican Americans, women and others may be included.

LITR 4340 American Immigrant Literature**Credit: 3 | Lecture: 3 | Lab: 0**

America's fundamental narrative of immigration, the "American Dream" and its variations, told in voices from the Pilgrims through Jewish, European, Asian, Central American, and Caribbean writers of the 20th and 21st centuries.

LITR 4342 Modern and Contemporary Drama**Credit: 3 | Lecture: 3 | Lab: 0**

A century of national and international playwrights from Henrik Ibsen and Anton Chekhov to Sam Shepard and August Wilson; realism, symbolism, expressionism, and theatre of the absurd.

LITR 4344 The Modern Novel**Credit: 3 | Lecture: 3 | Lab: 0**

Major works of such novelists as Conrad, Joyce, Faulkner, Mann, and Garcia-Marquez.

LITR 4345 Contemporary Novel**Credit: 3 | Lecture: 3 | Lab: 0**

Novels of recent decades from around the world; topics may include postcolonialism, postmodernism, transnationalism, technology, and virtuality. Authors may include Atwood, Ben Jelloun, Bolano, Coetzee, Djebbar, Lahiri, Mieville, Morrison, Murakami, Ondaatje, Pamuk, Powers, and Winterson.

LITR 4346 Medieval Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Romance, lyric, fabliau, epic, play, and story. Selections from such medieval masters as Dante; the Gawain, Tristan and Beowulf poets; Boccaccio; and Chretien de Troyes. Texts will be read in translation.

LITR 4350 Masterpieces of 19th-Century European Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Revolutionary literary and philosophical works from 19th-century European tradition; includes such writers as Balzac, Flaubert, Nietzsche, Marx, Dostoevski, Austen, Dickens, Blake, and Turgenev.

LITR 4352 Masterpieces of 20th-Century European Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Major works by 20th-century European writers, including James, Conrad, Woolf, Proust, Colette, Camus, Mann, Kafka, Nabokov, and Duras; topics may include the problems of modern existence, war, human rights, the citizen, and the writer.

LITR 4356 Modern American and British Poetry**Credit: 3 | Lecture: 3 | Lab: 0**

Myth and epic, the personal poem, Expressionism, neo-Romanticism; includes such poets as Yeats, Auden, Stevens, and Frost.

LITR 4358 Contemporary Poetry**Credit: 3 | Lecture: 3 | Lab: 0**

Poetry in English after 1950, American or transnational focus; may include such figures as Lowell, Ginsberg, Rich, Heaney, and Walcott.

LITR 4360 Film as Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Understanding films through the language of film (shots, montage, framing, lighting, sound, genre, classical Hollywood, and avant-garde). Film interpretation and critique.

LITR 4362 The Literature of Adolescence**Credit: 3 | Lecture: 3 | Lab: 0**

Growing up: variance and continuity in depictions of adolescence by American and other writers.

LITR 4364 Women in Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Heroines from Eve to Molly Bloom; how literature constructs the female; emphasis on 19th- and 20th-century works. Women's Studies Course.

LITR 4366 Literature and Religion**Credit: 3 | Lecture: 3 | Lab: 0**

Texts concerning spiritual journeys, religious passion, and impact of belief on character. Religions may be Western or non-Western, world or folk. Genres may range from scriptures to novels, memoirs to poetry. Topics, texts, and themes will vary. May be repeated for credit with permission of instructor.

LITR 4368 Literature of the Future**Credit: 3 | Lecture: 3 | Lab: 0**

Apocalyptic, evolutionary, and alternative narratives for literature depicting human society in the near and deep future; genres include classic and current science fiction, prophecy, utopias, dystopias, and ecotopias.

LITR 4370 Tragedy**Credit: 3 | Lecture: 3 | Lab: 0**

The dimensions of tragic experience as expressed in Western literature.

LITR 4371 Comedy**Credit: 3 | Lecture: 3 | Lab: 0**

The comic view of the human predicament as seen in writers such as Aristophanes, Moliere, Wilde, and others.

LITR 4389 Independent Study in Literature**Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required. May be taken for 3 hours of credit. For 1 hour of Independent Study credit, students should enroll in LITR 4189.

LITR 4391 Selected Topics in Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

LLAS Latinx and Latin American Studies

LLAS 2301 Topics in Latinx and Latin American Studies, Humanities**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of topics in Latinx and Latin American Studies. Topics vary; may be repeated for credit with permission of instructor.

LLAS 2302 Topics in Latinx and Latin American Studies, Human Sciences**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of topics in Latinx and Latin American Studies. Topics vary; may be repeated for credit with permission of instructor.

LLAS 4309 Topics in Latinx and Latin American Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Upper-level course on topics in Latinx and Latin American Studies. Topics vary; may be repeated for credit with permission of instructor.

LLS Literacy, Language Arts and Literature Studies

LLS 4311 Survey of Reading**Credit: 3 | Lecture: 3 | Lab: 0**

Theories and approaches to teaching reading from emergent to proficient reading including word recognition skills, phonemic awareness, vocabulary development, comprehension, materials and methods for structuring of reading programs.

LLS 4312 Literacy Issues of Secondary Students**Credit: 3 | Lecture: 3 | Lab: 0**

Theories and approaches for teaching reading in intermediate and high school. Field experiences required.

LLLS 4313 Corrective and Remedial Reading**Credit: 3 | Lecture: 3 | Lab: 0**

Study of neurophysiology and psychology in treating disabled readers, including dyslexia and related disorders. Evaluation of strategies of correction and remediation. Field experiences required.

Prerequisites: LLLS 4311 or LLLS 4352 and concurrent enrollment in LLLS 4332

LLLS 4332 Diagnostic and Prescriptive Reading**Credit: 3 | Lecture: 3 | Lab: 0**

Diagnostic evaluation of readers; remedial approaches to vocabulary, comprehension, word identification, phonemic awareness and fluency. Field experiences required.

Prerequisites: LLLS 4311 or LLLS 4352 and concurrent enrollment in LLLS 4313

LLLS 4344 Literacy Methods for EC-6**Credit: 3 | Lecture: 3 | Lab: 0**

This course examines the application of theories and strategies for teaching the language arts for EC-6. Field experience is required.

Prerequisites: Students must complete LLLS 4311 and TCED 4303 prior to taking this course.

LLLS 4345 Survey of Children's Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of literature for children focusing on titles appropriate for grades EC-8 students.

LLLS 4346 Literacy Methods for 4-8**Credit: 3 | Lecture: 3 | Lab: 0**

This course examines the application of theories and strategies for teaching the language arts for 4-8. Field experience is required.

Prerequisites: Students must complete LLLS 4311 and TCED 4304 prior to taking this course.

LLLS 4347 Multicultural Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of multicultural literature for children focusing on titles which reflect the diverse cultures and exceptionalities in the EC-8 classroom.

LLLS 4348 Selecting Literature for the Very Young Child**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of literature for very young children focusing on titles appropriate for children from birth to age five.

LLLS 4351 Reading in Content Subjects**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of current reading and writing development in content subjects.

LLLS 4352 Young Adult Literature and Reading**Credit: 3 | Lecture: 3 | Lab: 0**

Selection and use of literature for young adults, focusing on titles appropriate for students in grades 8-12.

LLLS 4364 Methods in Secondary English/Language Arts**Credit: 3 | Lecture: 3 | Lab: 0**

Implementation of instructional plans and teaching strategies. Review of current research, theories and exemplary practices of teaching secondary English/Language Arts. Field experiences required.

Prerequisites: Admission to Teacher Education.

LLLS 4379 Practicum in Clinical Reading**Credit: 3 | Lecture: 3 | Lab: 0**

Practices of diagnosing reading difficulties, grouping techniques and clinical evaluations; and three hours each week in a reading laboratory setting using selected materials and reading aids.

Prerequisites: 12 hours of Reading coursework including LLLS 4313 and LLLS 4332 or equivalent and approval of instructor and associate dean.

LLLS 4389 Independent Study in Reading**Credit: 3 | Lecture: 3 | Lab: 0**

Prerequisites: Approval of instructor and associate dean.

LLLS 4391 Selected Topics in Reading**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered.

MATH Mathematics

MATH 1314 College Algebra**Credit: 3 | Lecture: 3**

Study of quadratics; polynomial, rational, logarithmic and exponential functions; systems of equations; progressions; sequences and series and matrices and determinants.

Prerequisites: Meet TSI college-readiness standard for Mathematics; or equivalent.

MATH 1324 Mathematics for Business and Social Sciences.**Credit: 3 | Lecture: 3**

Topics from college algebra (linear equations, quadratic equations, functions and graphs, inequalities), mathematics of finance (simple and compound interest, annuities), linear programming, matrices, systems of linear equations, applications to management, economics and business.

Prerequisites: Meet TSI college-readiness standard for Mathematics; or equivalent.

MATH 1325 Calculus for Business and Social Sciences**Credit: 3 | Lecture: 3**

Limits and continuity, derivatives, graphing and optimization, exponential and logarithmic functions, anti-derivatives, integration, applications to management, economics and business.

Prerequisites: MATH 1324 or MATH 1314 with a C- or better or meet requirement in UHCL Mathematics Department Placement and Testing policy.

MATH 1332 Contemporary Mathematics**Credit: 3 | Lecture: 3**

Topics include introductory treatments of sets, logic, number systems, number theory, relations, functions, probability and statistics. Appropriate applications are included.

Prerequisites: Appropriate score on placement exam.

MATH 1342 Elementary Statistical Methods**Credit: 3 | Lecture: 3**

Collection, analysis, presentation and interpretation of data; probability, sampling, correlation and regression, analysis of variance and the use of statistical software.

Prerequisites: Meet TSI college-readiness standard for Mathematics; or equivalent.

MATH 1350 Mathematics for Teachers I**Credit: 3 | Lecture: 3**

Concepts of sets, functions, numeration systems, number theory and properties of the natural numbers, integers, rational and real number systems with an emphasis on problem solving critical thinking. Open only to teacher certification students.

Prerequisites: MATH 1314 or higher with a C- or better.

MATH 1351 Mathematics for Teachers II**Credit: 3 | Lecture: 3**

Concepts of geometry, probability and statistics; as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. This course is designed specifically for students who seek middle grade (4-8) teacher certification. Open only to teacher certification students.

Prerequisites: MATH 1350

MATH 2305 Discrete Mathematics**Credit: 3 | Lecture: 3**

Introductory mathematical logic, mathematical induction, relations and functions, basic counting techniques, graphs and trees and applications to computing devices. Designed for students majoring in the computer related disciplines.

Prerequisites: MATH 2413 or MATH 1325.

MATH 2315 Calculus III**Credit: 3 | Lecture: 3**

Vectors and vector valued functions, functions of multiple variables, partial derivatives, multiple integrals, volume and surface area and vector calculus.

Prerequisites: MATH 2414

MATH 2318 Linear Algebra**Credit: 3 | Lecture: 3**

Systems of linear equations; vector spaces, linear transformations, determinants, matrices, eigenvalues and eigenvectors; applications to coding and difference equations.

Prerequisites: MATH 2412 or MATH 2413

MATH 2320 Differential Equations**Credit: 3 | Lecture: 3**

Solutions of ordinary differential equations of the first and second order, Laplace transforms, power series techniques, systems of equations, stability, numerical methods, geometric and physical applications.

Prerequisites: MATH 2414

MATH 2412 Pre-Calculus Mathematics**Credit: 4 | Lecture: 4**

In-depth combined study of algebra, trigonometry and other topics for calculus readiness.

Prerequisites: MATH 1314 with a C- or better or meet requirement in UHCL Mathematics Department Placement and Testing policy.

MATH 2413 Calculus I**Credit: 4 | Lecture: 4**

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.

Prerequisites: MATH 2412 with a C- or better or meet requirement in UHCL Mathematics Department Placement and Testing policy.

MATH 2414 Calculus II**Credit: 4 | Lecture: 4**

Differentiation and integration of transcendental functions; parametric equations and polar coordinates; techniques of integration; sequences and series; improper integrals.

Prerequisites: MATH 2413 with a C- or better or meet requirement in UHCL Mathematics Department Placement and Testing policy.

MATH 3300 Introduction to Modern Algebra and Number Theory**Credit: 3 | Lecture: 3**

An introduction to techniques of proof, problem solving and applications using topics from number theory, discrete mathematics and logic such as symbolic logic, various proof methods, sequences and recursion, congruence classes, modular arithmetic, permutations and inductive and deductive argument forms.

Prerequisites: MATH 2413

MATH 3301 History of Mathematical Sciences**Credit: 3 | Lecture: 3**

Temporal relationships of concepts by means of biographic studies; development of mathematical theory and applications from ancient to contemporary times.

Prerequisites: MATH 1314 or MATH 1324 or MATH 1332

MATH 3304 Algebra Through Technology**Credit: 3 | Lecture: 3**

Using technology topics in elementary functions, simultaneous equations, polynomials and elementary topics in number theory. This course for Teaching Certification students only.

Prerequisites: MATH 1314

MATH 3305 Euclidian and Non-Euclidian Geometry**Credit: 3 | Lecture: 3**

Formal set theory, logical structure and measurement.

Prerequisites: MATH 1314

MATH 3306 Problem Solving**Credit: 3 | Lecture: 3**

Problem solving through experiences and reasoning; ideas from areas such as pattern recognition, simulation and logical deduction.

Prerequisites: MATH 1351, MATH 3304, or equivalent or instructor permission

MATH 3307 Functions and Modeling**Credit: 3 | Lecture: 3**

Students will engage in lab-based activities designed to strengthen and expand their knowledge of the topics in secondary mathematics, focusing on topics from pre-calculus and elementary calculus. Explorations will involve the use of multiple representations, transformations, data analysis techniques and interconnections among geometry, probability, and algebra. The use of quantitative approaches and building relationships between discrete and continuous reasoning will be recurring themes. Only for UTeach certificate students.

Prerequisites: MATH 2412

MATH 3312 Number Theory**Credit: 3 | Lecture: 3**

Properties of divisibility. Prime numbers, congruence arithmetic, Fermat's and Euler's Theorem, multiplicative functions, cryptology and applications of these ideas, an overview of techniques of mathematical proof.

Prerequisites: MATH 3300 or MATH 3331.

MATH 3331 Advanced Calculus**Credit: 3 | Lecture: 3**

Set theory. Real number system. Sequences and series. Differentiation. The Riemann integral.

Prerequisites: MATH 2315 or equivalent.

MATH 4313 Introduction to Topology**Credit: 3 | Lecture: 3**

Topological techniques in analysis, metric spaces, continuous transformations, connectivity, separation, compactness; nets and filters, cardinal arithmetic.

Prerequisites: MATH 3331.

MATH 4315 Numerical Analysis and its Applications**Credit: 3 | Lecture: 3**

Introduction to methods and algorithms in numerical computation. The topics include techniques for finding the roots of equations and interpolation functions, numerical approximation of differentiation and integration, numerical solutions to ordinary differential equations, linear systems and nonlinear systems.

Prerequisites: MATH 2315, MATH 2318, MATH 2320, MATH 3331, C/C++ or equivalent.

MATH 4316 Mathematic Software Applications**Credit: 3 | Lecture: 3**

This course covers a number of applied mathematics models through scientific software simulators; Matlab and Mathematica, Symbolic, numerical and graphical simulations and symbolic operations will be applied to various mathematical problems normally viewed as beyond the scope of the course in which they are first introduced. A variety of programming paradigms, such as procedural programming and function programming will be emphasized.

Prerequisites: MATH 2315, MATH 2818, MATH 2320, CSCI 1320, CSCI 1470.

MATH 4321 Predicate Logic**Credit: 3 | Lecture: 3**

An introduction to predicate logic; elements of formal logic systems; set theory and propositional calculus, completeness theorems and the nature of proofs.

MATH 4322 Introduction to Abstract Algebra**Credit: 3 | Lecture: 3**

Study of algebraic structures: maps, operations, permutations and homomorphisms. Groups, rings, integral domains and fields; applications to symmetry; techniques of mathematical proof.

Prerequisites: MATH 3312 or MATH 3331.

MATH 4325 Nonlinear Dynamics and Applications**Credit: 3 | Lecture: 3**

Simulation and analysis on continuous and discrete mathematical models in science. It also includes the study of nonlinear dynamics, chaos and fractals.

Prerequisites: MATH 2318 and MATH 2320 or equivalent.

MATH 4341 Introduction to Analysis**Credit: 3 | Lecture: 3**

Real numbers, sequences and series, differentiation and measure theory; Riemann, Stieltjes and Lebesgue integrals.

Prerequisites: MATH 3331 or equivalent.

MATH 4344 Introduction to Probability**Credit: 3 | Lecture: 3**

Sample space, probability function, combinatorics, discrete and continuous random variables, special probability distributions, moment generating function, multivariate distribution and central limit theorem.

Prerequisites: MATH 2414

MATH 4345 Introduction to Statistics**Credit: 3 | Lecture: 3**

Sampling distributions, point and interval estimation, hypothesis testing, regression and correlation, nonparametric statistics, analysis of variance.

Prerequisites: MATH/STAT 4344

MATH 4346 Probability for Actuarial Exam P1**Credit: 3 | Lecture: 3**

This course is designed to prepare students for the first actuarial exam. This course consists of introducing, reviewing concepts and rules of probability and statistics and studying sample actuarial examinations and related material. Students are given sample problems from past actuarial examinations to study outside of class. The solution of these problems and related material are discussed in class.

Prerequisites: MATH/STAT 4344

MATH 4348 Introduction to Financial Math for Exam FM**Credit: 3 | Lecture: 3**

This course is designed to help students for the second actuarial exam. This course consists of introducing the basics of sample interest and discount, compound interest and simple annuities and studying sample actuarial examinations and related material. Students are given sample problems from past actuarial examinations to study outside of class. The solution of these problems and related material are discussed in class.

Prerequisites: MATH 2414

MATH 4350 Financial Economics for Actuarial Exam MFE**Credit: 3 | Lecture: 3**

A mathematical insight of some fundamental concepts of financial mathematics and financial economics, and their application to real world business situations and basic risk management. An introduction to mathematical approach to understanding stochastic calculus, asset pricing, hedging and portfolio theory.

Prerequisites: MATH/STAT 4344

MATH 4363 Functions of a Complex Variable**Credit: 3 | Lecture: 3**

The theory of limits, differentiation and integration in the complex plane. Gauss' theorem and residue calculations.

Prerequisites: MATH 2315 or equivalent.

MATH 4379 Internship in Mathematics**Credit: 3 | Lecture: 3**

Supervised work experience in an approved industrial firm or government agency. Written or oral report required.

Prerequisites: 15 hours of upper-level credit; approval by program chair and associate dean.

MATH 4389 Independent Study in Mathematics**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean.

MATH 4391 Selected Topics in Mathematics**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

MENG Mechanical Engineering**MENG 1204 Engineering Graphics for Mechanical Engineers****Credit: 2 | Lecture: 1 | Lab: 3**

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. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MATH 1314 or equivalent.

MENG 3210 Mechanical Engineering Lab I**Credit: 2 | Lecture: 1 | Lab: 3**

Applications of statistical principles to engineering measurements. Laboratory techniques to measure engineering quantities such as displacement, pressure, temperature, and strain with a primary focus on steady state measurements. The course includes an introduction to transient transducer response, filtering and signal conditioning. An introduction to experimental methods and procedures, estimation of measurement uncertainty, reduction of data to significant form, and the organization of experimental results in written reports. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: ENGR 2305, PHYS 2326, PHYS 2126

MENG 3211 Mechanical Engineering Lab II**Credit: 2 | Lecture: 1 | Lab: 3**

A continuation of MENG 3210 with increased focus on dynamic systems measurements and measurements relevant to thermal and fluid systems. Dynamic and transient considerations in instruments, physical systems, and experimental data are investigated. Additional introduction to experimental methods and procedures, estimation of measurement uncertainty, reduction of data to significant form, and the organization of experimental results in written reports. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 3210, MENG 3310

Corequisites: MENG 3316

MENG 3303 Solid Mechanics**Credit: 3 | Lecture: 3 | Lab: 0**

Stress, strain, and their relationships. Stress and deformation analysis of beams subjected to axial, torsional, bending, and distributed loads. Elastic and plastic deformation of engineering materials. Buckling analysis, energy methods, and thermal stress analysis. Physics majors may substitute PHYS 3321 for ENGR 2301 as a prerequisite for this course. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: ENGR 2301, PHYS 3321 (PHYS majors only)

MENG 3310 Introduction to Fluid Mechanics**Credit: 3 | Lecture: 3 | Lab: 0**

Properties of fluids, fluid statics and resistance of fluids in laminar and turbulent flows. Fundamental mechanics of compressible and incompressible fluid motion with application to engineering problems. Control volumes and application to fluid flow analysis. Dimensional analysis, similitude, dimensionless properties. Internal and external flows. Introduction to computational fluid dynamics and concepts of turbomachinery. Physics majors may substitute PHYS 3311 and PHYS 3321 for MATH 2320 and ENGR 2302 as prerequisites for this course. Grades of "C" or better in MATH 2315, MATH 2320 (or equivalent), ENGR 2302, or PHYS 3321 are required to enroll in this course.

Prerequisites: ENGR 2302, MATH 2315, MATH 2320, PHYS 3311, PHYS 3321.

MENG 3314 Design Methodology**Credit: 3 | Lecture: 3 | Lab: 0**

An overview of the design activity in engineering. Topics include the product design process, project planning, quality function deployment, design specification, concept generation and selection, system and subsystem design. Also, an introduction to engineering economics and its application to the design process. Design team projects. MENG 3316 or MENG 3344 shall be taken prior to, or concurrent with, enrollment in this course. As the first of a three-course sequence, it is expected that students enrolled in this course must reasonably expect to complete their Mechanical Engineering Degree requirements and graduate within the next three long semesters. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 1204, MENG 3303, MENG 3310, MENG 3316 or MENG 3344

Corequisites: MENG 3316, MENG 3344

MENG 3316 Heat Transfer**Credit: 3 | Lecture: 3 | Lab: 0**

The study of the conduction, convection, and radiation modes of heat transfer; both steady and unsteady state systems. Governing equations, boundary conditions, and initial conditions are considered. One and two-dimensional heat flow and thermal circuit concepts. Heat sinks and heat exchanger characteristics and applications of heat transfer to thermal systems design are included. Physics majors may substitute PHYS 3311 and PHYS 3351 for MATH 2320 and MENG 3334 as prerequisites for this course. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MATH 2315, MATH 2320 or PHYS 3311, MENG 2334 or PHYS 3351 and MENG 3310.

MENG 3324 Introduction to Materials Science**Credit: 3 | Lecture: 2 | Lab: 3**

An introduction to the behavior and structure of engineering materials. Grain structure, behavior, and failure analysis of metals with emphasis on controlling structure and mechanical properties. Phase distribution analysis and heat treating of engineered metals. Generalized characteristics of polymers and composite materials. Prior successful completion of or concurrent enrollment in MENG 3303 is required. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: CHEM 1111, CHEM 1311.

Corequisites: MENG 3303

MENG 3334 Thermodynamics I**Credit: 3 | Lecture: 3**

Key thermodynamics properties such as enthalpy, entropy, work, heat, compressibility and phase. First and second laws of thermodynamics and applications. Important thermal cycles and modeling of closed and open systems. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MATH 2315, CHEM 1311, CHEM 1111, PHYS 2325, PHYS 2125.

MENG 3344 Introduction to Manufacturing Processes**Credit: 3 | Lecture: 2 | Lab: 3**

An introduction to casting, forming, machining, and joining processes for metals and nonmetals using traditional and computer aided manufacturing techniques. Includes a survey of manufacturing technologies and industrial practice. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 3324, MENG 3303.

MENG 4143 Thermal/Fluid Laboratory**Credit: 1 | Lecture: 0 | Lab: 3**

Laboratory application of principles of fluid mechanics, thermodynamics, and heat transfer. Experience with typical thermal and fluids lab equipment, such as wind tunnels, flumes and piping systems. Measurements using various sensors, such as orifice plates, turbines, pitot tubes, anemometers and thermocouples.

Corequisites: MENG 4343

MENG 4179 Internship in Mechanical Engineering**Credit: 1 | Lecture: 1**

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: 15 hours of upper-level credit; approval by program chair and associate dean.

MENG 4189 Independent Study in Mechanical Engineering**Credit: 1 | Lecture: 1 | Lab: 0**

Prerequisites: Approval of instructor, program chair and associate dean.

MENG 4240 Senior Design Project I**Credit: 2 | Lecture: 0 | Lab: 6**

This is the second course of a three-course sequence in which student teams apply the techniques learned in MENG 3314 to design and prototype practical engineering systems to meet customer requirements and realistic constraints. This course covers project planning, project specification and scoping, quality function deployment (QFD), functional decomposition, preliminary design, and initial prototype development; including preliminary analysis and testing. The students gain experience in written and oral engineering communications and applying knowledge and techniques acquired during their engineering education. Students must reasonably expect to complete their mechanical engineering degree requirements within 2 long semesters upon completion of this course. Successful completion of (with a grade of "C" or better) or concurrent enrollment in MENG 4310 or MENG 4343 is required.

Prerequisites: MENG 3314, MENG 4310, MENG 4343

Corequisites: MENG 4310, MENG 4343.

MENG 4241 Senior Design Project II**Credit: 2 | Lecture: 0 | Lab: 6**

This is the third course of a three-course sequence. The project initiated in MENG 4340 is completed. The course will focus on converting the design into a working system. Teams will develop and conduct testing of their system, demonstrate and document successfully meeting the design requirements. The students will gain additional experience in practical engineering communications and will investigate funding, entrepreneurship, and intellectual property associated with their designs. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 4240.

MENG 4279 Internship in Mechanical Engineering**Credit: 2 | Lecture: 2**

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: 15 hours of upper-level credit; approval by program chair and associate dean.

MENG 4289 Independent Study in Mechanical Engineering**Credit: 2 | Lecture: 2**

Prerequisites: Approval of instructor, program chair and associate dean.

MENG 4302 Introduction to Mechatronics**Credit: 3 | Lecture: 2 | Lab: 3**

Characterization, design, selection, and integration of mechatronic systems and components including AC and DC motors, generators, servo-motors, stepper motors, controllers, solenoids, hydraulic and pneumatic actuators. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 3211, MATH 2320,

Corequisites: MENG 4310

MENG 4305 Finite Element Analysis**Credit: 3 | Lecture: 3 | Lab: 0**

Fundamental concepts of finite element analysis including matrix methods, boundary value solution techniques, interpolation techniques and mesh refinement. Applications to trusses, beams, and two-dimensional solids. Pre and post processing, error analysis and interpretation of the results. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 3303, MATH 2318

MENG 4307 Alternative Energy Systems**Credit: 3 | Lecture: 3 | Lab: 0**

A survey of alternative and sustainable energy sources; primarily solar (photovoltaic and thermal), wind, and hydrogen fuel cell technologies will be investigated. Other technologies investigated depending on interest. Current technical literature will be reviewed to assess state of the art. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 2334

Corequisites: MENG 4343

MENG 4309 Design for Manufacturing**Credit: 3 | Lecture: 3 | Lab: 0**

Design principles for achieving quick, low cost product introduction through consideration of costs, quality, reliability, maintainability, appearance and ergonomics. The effects of production volume, production methods, materials selection, and part geometry on manufacturing costs are considered. Methods for estimating and reducing tooling costs are presented. A significant focus is placed on production methods for mass production from a single machine. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 3344, MENG 3314.

MENG 4310 Dynamics and Control of Mechanical Systems**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to automatic control systems; mathematical models of physical systems; block diagrams and signal flow graphs; transient and steady state responses; P, PI, PD, and PID controllers; stability of linear feedback systems; root-locus and Routh's criteria; frequency response methods; Nyquist and Bode plots; stability margins; state-variable formulation of dynamic systems. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: ENGR 2302, ENGR 2304, MATH 2320, MENG 3211.

MENG 4331 Design of Machine Elements**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis for the design and manufacture of basic mechanical elements, and their role in the design of machines. A brief review of relevant topics including stress/deflection, failure theories, and contact stress. These topics are extended to the design of fundamental mechanical components including shafts, gears, springs, bearings, fasteners, and clutches/brakes. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: ENGR 2302, MENG 3303 and MENG 3314.

MENG 4333 Vibrations**Credit: 3 | Lecture: 3 | Lab: 0**

Development of equations of motion for multi-degree of freedom systems. Concepts of vibration and damping using scalar and matrix approaches. Modal analysis, vibration of beams, and boundary condition application. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: ENGR 2302, MATH 2320

Corequisites: MENG 4310

MENG 4340 Mechanical Engineering Capstone I**Credit: 3 | Lecture: 1 | Lab: 4**

The senior capstone project is a two-semester sequence in which student teams will apply the techniques learned in MENG 3314 to design and build practical engineering systems to meet customer requirements and realistic constraints. The first semester covers project planning, project specification and scoping, Quality Function Deployment, Functional Decomposition, preliminary design, and partial prototype development; including preliminary analysis and testing. The students will gain experience in written and oral engineering communications. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 3314

Corequisites: MENG 4331, MENG 4343

MENG 4341 Mechanical Engineering Capstone II
Credit: 3 | Lecture: 1 | Lab: 4

This is the second course in the two-semester sequence. The project initiated in MENG 4340 is completed. The course will focus on converting the design into a working system. Teams will develop and conduct testing of their system, demonstrate and document successfully meeting the design requirements. The students will gain additional experience in practical engineering communications and will investigate funding, entrepreneurship, and intellectual property associated with their designs. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 4340

MENG 4343 Thermal/Fluid System Design

Credit: 3 | Lecture: 3 | Lab: 0

Applications of the engineering design process, thermodynamics, fluid dynamics, and heat transfer to practical engineering problems in the thermal/fluids domain. Heat exchanger design, pump and piping selections, mathematical techniques, economic considerations, curve fitting, and system identification. Use of relevant engineering codes and standards. Students are required to take MENG 2334 or MENG 3334 as prerequisites. A grade of "C" or better is required in all prerequisite courses.

Prerequisites: MENG 2334, MENG 3334, MENG 3310, MENG 3314, MENG 3316.

Corequisites: MENG 4143

MENG 4379 Internship in Mechanical Engineering

Credit: 3 | Lecture: 3

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: 15 hours of upper-level credit; approval by program chair and associate dean.

MENG 4389 Independent Study in Mechanical Engineering

Credit: 3 | Lecture: 3

Prerequisites: Approval of instructor, program chair and associate dean.

MENG 4391 Selected Topics in Mechanical Engineering

Credit: 3 | Lecture: 3 | Lab: 0

Advanced topics relevant to any area of mechanical engineering, identified by title each time the course is offered.

MGMT Management

MGMT 3301 Management Theory and Practice

Credit: 3 | Lecture: 3

Management policies and processes including planning, organizing and controlling; overview of the functions of organization theory and behavior.

MGMT 3313 Organizational Communication

Credit: 3 | Lecture: 3

A study of theories and practices in organizational communication, dissemination of information in organizational settings, effectiveness, relative costs and feedback potential.

Prerequisites: MGMT 3301 or equivalent.

MGMT 3331 Human Resource Management**Credit: 3 | Lecture: 3**

Problems and practices in human resource management; selection, placement, evaluation, promotion and termination.

Prerequisites: MGMT 3301 or equivalent.

MGMT 3341 Human Resource Planning, Staffing and Selection**Credit: 3 | Lecture: 3**

Techniques for planning and recruiting human resource needs in the context of organizational requirements. Staffing and selection techniques and practice relative to legal concerns and labor market considerations.

Prerequisites: MGMT 3331 or equivalent.

MGMT 3351 Wage and Salary Administration**Credit: 3 | Lecture: 3**

Job performance evaluation and development of compensation plans and programs.

Prerequisites: MGMT 3301 or equivalent.

MGMT 4189 Independent Studies in Management**Credit: 3 | Lecture: 3**

Independent directed study in Management.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

MGMT 4312 Strategic Management (Capstone)**Credit: 3 | Lecture: 3**

In addition, registration is restricted to students with an approved Candidate Plan of Study. The study of the formulation, implementation and assessment of strategic decisions.

Prerequisites: MGMT 3301, MKTG 3301, FINC 3331 and LAST SEMESTER.

MGMT 4316 Human Resource Management Information Systems**Credit: 3 | Lecture: 3**

Principles and procedures and contemporary programs used in the development of information systems to aid human resource decision making.

MGMT 4325 Legal Concepts for Human Resource Professionals**Credit: 3 | Lecture: 3**

This course provides students with a basic understanding of the federal laws governing the employee/employer relationship with emphasis on non-discrimination, wage and hour laws, and employee benefits

MGMT 4326 Effective Negotiations**Credit: 3 | Lecture: 3**

This course is designed to provide a basic foundation in negotiation theory and practice. The focus of this course will be upon developing analytical and interpersonal skills in the context of negotiation simulations and discussions using a variety of settings and media, reflecting on the various situations in which negotiations take place today. The student will be given the opportunity to practice negotiation skills in one-on-one and team simulations.

MGMT 4327 Leadership**Credit: 3 | Lecture: 3**

The course will examine and focus on proven executive leadership best practices across a range of complex organizations.

MGMT 4328 Cross Cultural and International Leadership**Credit: 3 | Lecture: 3**

This course will focus on identifying and evaluating leadership dimensions from a cross-cultural perspective. The central theme of the course is to cultivate leadership behaviors for success in the international organization environment.

MGMT 4332 Organizational Design and Learning**Credit: 3 | Lecture: 3**

Surveys theory and research on the structure of business organizations and processes affecting their management.

Prerequisites: MGMT 3301 or equivalent.

MGMT 4333 Collective Bargaining in the Public Sector**Credit: 3 | Lecture: 3**

Comparisons and contrasts of collective bargaining in the public and private sectors; the impact of unionization on public administration.

Prerequisites: MGMT 3301 or equivalent.

MGMT 4334 Leading Teams**Credit: 3 | Lecture: 3**

Exploring issues related to team membership, including leading teams, team foundation and development, roles within the teams, effective team member interactions, and the successful management of team processes.

Prerequisites: MGMT 3301 & MGMT 4354.

MGMT 4336 Principles of Entrepreneurship**Credit: 3 | Lecture: 3**

Examines the preparation and foundation of new ventures. Topics include opportunity recognition, market analysis, organizational forms and ownership structures, venture capital, strategy formulation and feasibility analysis. This course includes preparation and presentation of a comprehensive business plan.

Prerequisites: MGMT 3301 and MKTG 3301 or equivalents.

MGMT 4337 Applied Small and Family Business Management**Credit: 3 | Lecture: 3**

This course will provide students with an opportunity to practice entrepreneurial skills and tools while supporting local businesses, nonprofit firms, or the community.

Prerequisites: MGMT 4336 or equivalent

MGMT 4341 Leadership in a Global Business Environment**Credit: 3 | Lecture: 3**

The topic of leadership will be explored in the context of the global business environment.

MGMT 4351 Industrial Labor Relations**Credit: 3 | Lecture: 3**

Collective bargaining processes in American industry; impact of labor management relations on wage and employment levels and on national income.

Prerequisites: MGMT 3301 or equivalent.

MGMT 4353 International Business Management**Credit: 3 | Lecture: 3**

Managerial considerations in international business operations; government involvement, organizational structure, operating policies and market peculiarities.

Prerequisites: MGMT 3301 or equivalent.

MGMT 4354 Organizational Behavior Theory and Application**Credit: 3 | Lecture: 3**

Exploring the dynamics of human behavior in organizations in order to better understand and evaluate how people and groups in organizations behave, react, and interpret events, and to apply these concepts successfully in a management context.

Prerequisites: MGMT 3301 or equivalent.

MGMT 4355 Seminar in International Management**Credit: 3 | Lecture: 3**

Field experience involving meetings with top management personnel of businesses operating outside the United States. Discussions will center on the economic, cultural, social, legal and other environmental constraints that affect firms in other countries.

MGMT 4356 Employee Training and Organizational Development**Credit: 3 | Lecture: 3**

This course is designed to explore the field of employee and organization development. The course explores the fundamentals of training and organizational development, critical models and approaches utilized by training and organizational development professionals, and critical elements necessary for a successful training and/or organizational development program.

Prerequisites: MGMT 3331 and MGMT 4354 or equivalent.

MGMT 4371 Seminar on the Social Responsibility of Business**Credit: 3 | Lecture: 3**

The changing role of business enterprise in society; influences of government regulatory agencies on social consciousness in the business world.

Prerequisites: MGMT 3301 or equivalent.

MGMT 4379 Internship in Management**Credit: 3 | Lecture: 3**

Three or six hours of supervised work experience each week in an approved business or industrial firm.

Prerequisites: 15 hours of upper-level credit and approval of program director.

MGMT 4389 Independent Studied in Management**Credit: 3 | Lecture: 3**

Independent directed study in Management.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

MGMT 4391 Selected Topics in Management**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

MKTG Marketing

MKTG 3301 Principles of Marketing**Credit: 3 | Lecture: 3**

Focus is on initiating, building and maintaining mutually beneficial relationships with customers through the strategic use of the marketing mix. Topics include marketing research, market segmentation and targeting, buyer behavior, product development, brand management, promotion, international marketing, e-marketing, and ethical marketing practices.

MKTG 3313 Marketing Channels and Distribution**Credit: 3 | Lecture: 3**

Examination of the strategic role of distribution within the overall marketing strategy. Specific managerial and regulatory issues in designing and coordinating industrial distribution channels and channel relationships are discussed.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3314 Logistics Strategy**Credit: 3 | Lecture: 3**

An in-depth analysis of logistics and its role within the distribution strategy. The functional components such as inventory control, transportation, warehousing, purchasing, and supply chain management are examined.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3331 Integrated Marketing Communications**Lecture: 0 | Lab: 1**

Focus is on building relationships between brands and customers through the strategic use of the elements of the marketing communication mix, including advertising, sales promotion, direct marketing, personal selling and public relations.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3332 Professional Selling**Credit: 3 | Lecture: 3**

A study of the field of professional selling as an integral component of the promotional activities of the organization. Discussions focus on the selling of goods and services to organizational buyers in the context of long-term relationships.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3342 Brand Management**Credit: 3 | Lecture: 3**

An in-depth analysis of the power of branding on customer behavior and its impact on business results. Topics covered include the importance of branding, brand equity, characteristics of a good brand name and brand mark, brand identity and design, brand promise, brand positioning and repositioning, brand attributes and personality, messaging and taglines, measuring success, and emerging issues.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3343 Consumer Behavior**Credit: 3 | Lecture: 3**

This course focuses on the individual consumer as a primary consideration in strategic marketing decisions. It provides insight into the motivations, influences, and processes underlying consumption behavior, including psychological, situational, and socio-cultural factors. Specific topics include perception, attitudes, values, consumer decision-making, and customer satisfaction, among others.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3344 Internet Marketing**Credit: 3 | Lecture: 3**

An examination of how the internet is transforming relationships between organizations and their customers, as well as changing the competitive dynamics of the marketplace, with an emphasis on the strategic role of the internet in the marketing plan.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3346 Healthcare Marketing**Credit: 3 | Lecture: 3**

The growth of competition among healthcare providers provides new and exciting opportunities for marketers. This course provides students with the knowledge and skills needed to effectively market health care products and services. Students examine consumer needs, target market concepts, service development, pricing strategies, customer communications, channel management, cost benefit analysis, ethical considerations, and emerging issues in healthcare.

MKTG 3347 Customer Relationship Management**Credit: 3 | Lecture: 3**

This course covers relationship management as an effective component of an organization's marketing effort. The primary emphasis is on the effort of the firm to manage its relationship with customers, including the capture, storage and analysis of customer information, with discussion of the people, processes, and technology involved in taking full advantage of this information.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3348 Retail Management**Credit: 3 | Lecture: 3 | Lab: 0**

The study of fundamental retailing concepts and practices from a management perspective. Topics include location selection, store layout, store operation and management, branding, merchandising, shelf management, pricing alternatives, point-of-sale merchandising, advertising and communication effectiveness, customer service, customer analysis, and retail information systems and control.

Prerequisites: MKTG 3301 or equivalent.

MKTG 3351 Marketing Research**Credit: 3 | Lecture: 3**

Focus is on the use of market intelligence to provide marketing decision-makers with data on the effectiveness of the current marketing mix, direction for necessary changes, and insight into new opportunities in the marketplace.

Prerequisites: MKTG 3301 or equivalents.

MKTG 3360 Social Media Marketing**Credit: 3 | Lecture: 3 | Lab: 0**

An introductory look at the history, theory, technology, and uses of social media as a component of an organization's integrated marketing communications plans. The course surveys current and emerging trends in the digital marketing space, and how it all fits together within a strategic marketing framework.

Prerequisites: MKTG 3301 or equivalent.

MKTG 4189 Independent Studies in Marketing**Credit: 3 | Lecture: 3**

Independent directed study in Marketing.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

MKTG 4311 Sales Management**Credit: 3 | Lecture: 3**

A study of the tasks of the sales manager including the organization, planning, operation and control of a field sales force. The course emphasizes managerial problem solving in business-to-business marketing.

Prerequisites: MKTG 3332 or equivalent.

MKTG 4332 Services Marketing**Credit: 0 | Lecture: 3**

Concepts and strategies in service industries which serve business and organizational customers. Examines the role of pricing, promotion, distribution, and product strategies in the business service sector.

Prerequisites: MKTG 3301 or equivalent or permission of instructor for non-majors.

MKTG 4333 Marketing for Entrepreneurs**Credit: 3 | Lecture: 3**

Application of marketing theories and principles to small businesses and new business ventures.

Prerequisites: MKTG 3301 or equivalent.

MKTG 4334 Marketing Strategy**Lecture: 0 | Lab: 1**

Integrating marketing concepts such as purchasing, market segmentation and the 4 Ps and applying them to develop market strategies.

Prerequisites: MKTG 3301 or equivalent.

MKTG 4335 Brands and Brand Management**Credit: 3 | Lecture: 3**

Effective brand management drives customer loyalty and superior long-term company performance. Brands and Brand Management is an undergraduate course that explores why brands are important, what they represent to consumers, and what firms should do to manage them effectively. Some of the topics covered in this course include brand positioning and repositioning; choosing brand elements such as brand names, brand marks, spokes-characters, and endorsers; brand architecture and brand extensions; measuring brand performance; and managing brands over time and across geographic boundaries.

Prerequisites: Prerequisite: MKTG 3331

MKTG 4338 Sports Marketing**Credit: 3 | Lecture: 3**

Sports marketing examines the world of sports from a strategic marketing perspective. More specifically, this course examines the strategic decisions related to target market, product, price and promotion within sports marketing context. An integrating strategic concept will be moving spectators up the 'fan ladder'. The course concludes with a discussion of emerging issues in sports marketing.

Prerequisites: MKTG 3301 and MKTG 3343

MKTG 4351 International Marketing**Credit: 3 | Lecture: 3**

Begins with a discussion of incentives for and barriers to international trade, and foreign market selection and entry strategies. Examines product, price, distribution, and promotion decisions in an international context. Involves analysis and critique of the marketing strategies used by a multinational firm.

Prerequisites: MKTG 3301 or equivalent.

MKTG 4352 Seminar in International Marketing**Credit: 3 | Lecture: 3**

Field experience involving meetings with the chief marketing officers of firms operating in areas outside the United States. Sessions will concentrate on marketing problems found in other cultures, the solutions used to address those problems and how these problems and solutions are different from the American experience.

MKTG 4379 Internship in Marketing**Credit: 3 | Lecture: 3**

Three or six hours of supervised work experience each week in an approved marketing unit.

Prerequisites: 15 hours of upper-level credit and approval of program director.

MKTG 4389 Independent Studies in Marketing**Credit: 3 | Lecture: 3**

Independent directed study in Marketing.

Prerequisites: Approval of instructor, Faculty Chair and Associate Dean required.

MKTG 4391 Selected Topics in Marketing**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

MSCI Military Science

MSCI 3310 Advanced Military Science**Lecture: 0 | Lab: 1**

Leadership; preparing combat orders; military instruction principles; small unit tactics; tactical communications; fitness training. Class is designed to prepare students for Advanced Camp. Fitness training required three times per week in addition to class and lab.

Prerequisites: MSCI 2220 or consent of the chair.

MSCI 3320 Advanced Military Science**Lecture: 0 | Lab: 1**

Leadership; preparing combat orders; military instruction principles; small unit tactics; tactical communications; fitness training. Class is designed to prepare students for Advanced Camp. Fitness training required three times per week in addition to class and lab.

Prerequisites: MSCI 2220 or consent of the chair.

MSCI 3398 Special Problems**Lecture: 0 | Lab: 1**

Prerequisites: junior standing and consent of department chair.

MSCI 3491 leadership development and assessment course**Lecture: 0 | Lab: 1**

Off-campus field training practicum stressing application of leadership management with emphasis on tactical and special military skills. Places students in demanding and stressful leadership situations.

Prerequisites: MSCI 3320 or consent of the chair.

MSCI 4310 Advanced Military Science**Lecture: 0 | Lab: 1**

Leadership and command; military law; administration/staff operations and procedures; dynamics of the military team; training management; ethics and professionalism. Fitness training required three times per week in addition to class and lab.

Prerequisites: MSCI 3320 or consent of the chair.

MSCI 4320 Advanced Military Science**Lecture: 0 | Lab: 1**

Leadership and command; military law; administration/staff operations and procedures; dynamics of the military team; training management; ethics and professionalism. Fitness training required three times per week in addition to class and lab.

Prerequisites: MSCI 3320 or consent of the chair.

MSCI 4398 Special Problems**Lecture: 0 | Lab: 1**

Prerequisites: senior standing and consent of department chair.

NCBM Non-Course Based Option**NCBI 0001 NCB Integrated Reading and Writing**

Students attend a series of workshops designed to enhance critical reading and academic writing skills. Topics include reading comprehension, application of prior learning, and strategies for approaching college writing.

Prerequisites: By placement.

Corequisites: WRIT 1301

NCBM 0001 NCB MATH

Students move through a series of content modules using a mastery learning approach in a lab environment. Topics include solving systems of equations, applications involving systems of equations, solving radiation and quadratic equations and functions.

Prerequisites: By placement.

Corequisites: MATH 1314 or MATH 1332

NCBR 0001 NCB Reading

Students attend a series of workshops designed to enhance reading skills. Topics include literary analysis, analyzing author's use of language, surmising inferences in a text or texts, and identifying main ideas and supporting details. Workshops are assigned based on individual student needs. Students must demonstrate mastery of topics assigned as they progress through the workshop series.

Prerequisites: By placement.

Corequisites: WRIT 1301

NCBW 0001 NCB Writing

Students attend a series of workshops designed to enhance writing skills. Topics include understanding sentence structure and sentence logic, mastering agreement, and learning strategies for essay revision. Workshops are assigned based on individual student needs. Students must demonstrate mastery of topics assigned as they progress through the workshop series.

Prerequisites: By placement.

Corequisites: WRIT 1301

NURS Nursing

NURS 3309 Role Transition

Credit: 3 | Lecture: 3 | Lab: 0

Explores the transition of the registered nurse to the role of the baccalaureate nurse. Emphasis is placed on demonstration of professionalism, leadership, critical thinking, clinical reasoning and application of the nursing process in the care of culturally diverse populations across the lifespan and at various stages of the wellness/illness continuum. Roles of the nurse as member of the profession, provider of patient-centered care, patient safety advocate and member of the interdisciplinary team will be explored.

Prerequisites: RN license

NURS 3310 Legal and Ethical Issues

Credit: 3 | Lecture: 3 | Lab: 0

Identifies current ethical and legal issues facing nursing today. Explores basic legal and ethical principles and value formation. The role of the state board of nursing in the regulation of nursing practice is reviewed along with landmark court cases affecting nursing practice.

Prerequisites: RN license

NURS 3311 History and Theories of Nursing

Credit: 3 | Lecture: 3 | Lab: 0

Explore the historical development of nursing. Introduction of nursing theorists and how nursing theories influence nursing practice today.

NURS 3313 Community Health Nursing

Credit: 3 | Lecture: 3 | Lab: 0

Provides an overview of the delivery of nursing care in a variety of community-based settings. Examination of spiritual, cultural, and socioeconomic factors and their impact on the health care of individuals, families, communities, and populations. Role of the nurse as patient advocate within an interdisciplinary team for health promotion and disease prevention for at-risk populations.

Corequisites: NURS 3323

NURS 3314 Trends and Issues in Nursing Practices

Credit: 3 | Lecture: 3 | Lab: 0

Current professional, political, and social issues and trends that affect the nursing profession today and in the future. Strategies for individual and collective participation in decisions that influence professional nursing practice and health care delivery will be explored.

NURS 3323 Community Health Nursing Project

Credit: 3 | Lecture: 3 | Lab: 0

Provides the opportunity to apply principles and methods for comprehensive assessment, program planning and intervention in an identified population. Focus is on the application of the knowledge and skills of community health nursing.

Corequisites: NURS 3313

NURS 4313 Nursing Research**Credit: 3 | Lecture: 3 | Lab: 0**

Introduces students to the research process and provides students with the knowledge and competence needed to critique a research article and to apply research to support their evidenced-based practice.

NURS 4314 Advanced Leadership and Management**Credit: 3 | Lecture: 3 | Lab: 0**

This course introduces students to the research process and will provide students with the knowledge and competence needed to critique a research article and to apply research to support their evidenced-based practice.

Corequisites: NURS 4324

NURS 4324 Advanced Leadership and Management Practicum**Credit: 3 | Lecture: 3 | Lab: 0**

Emphasis critical thinking and clinical reasoning in the application of the leader/manager role. Clinical experience will focus on the application of leadership and management practices, including organization, planning, staffing, directing and controlling resources.

Corequisites: NURS 4314

NURS 4389 Independent Study in Nursing**Credit: 3 | Lecture: 0 | Lab: 0**

Advanced instructional concepts, methods, and technologies in teaching and administering secondary level physical education programs.

OSHE Occupational Safety and Health**OSHE 3304 Safety, Health and Liability in Schools****Credit: 3 | Lecture: 3**

Safety and health principles and practice as applied to schools. Includes hazard recognition and control infield, laboratory and classroom environments, emergency response, regulations, guidelines and teacher liability. Science majors may use only as an unrestricted elective.

OSHE 3311 Industrial Health and Hygiene**Credit: 3 | Lecture: 3**

General review of industrial health. Basic principles of industrial hygiene investigation. Physical and chemical hazards in the industrial workplace. Workplace environmental control.

Prerequisites: CHEM 2323, PHYS 1301

OSHE 3332 Principles of Professional Safety**Credit: 3 | Lecture: 3**

Includes how to organize and administer effective safety programs. Looks at future trends for business and industry and what changes the safety professional must keep abreast of in economic, environmental, regulatory and technical advances affecting their field.

OSHE 3340 Techniques of Safety Engineering and Analysis**Credit: 3 | Lecture: 3**

Practical application of basic engineering skills in the identification, evaluation and control of industrial hazards. Emphasis is on effective solution to safety design and operational problems and application of the Safety Precedence Sequence in the selection of hazard control measures.

Prerequisites: PHYS 1302

OSHE 4195 Cooperative Education Work Term
Credit: 1 | Lecture: 1

Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description.)
Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

OSHE 4314 Personal Protective Equipment
Credit: 3 | Lecture: 3

Basic design and use of commonly used protective equipment in industry with emphasis on respiratory protection principles including approaches to training and instruction for proper usage.

OSHE 4315 Industrial Radiological Health
Credit: 3 | Lecture: 3

Non-calculus based presentation of the principles of ionizing radiation and non-ionizing intended to provide basic competency in radiation protection through an understanding of the nature, uses, health effects, measurement and control of radiation.
Prerequisites: PHYS 1302

OSHE 4316 System Safety and Accident Investigation**Credit: 3 | Lecture: 3**

The course handles applications of system safety techniques in the industrial work environment and accident investigation theory and practice. Review of loss control management concepts, risk management, S & H training acceptance of risk, identification and initiation of corrective actions, pre-accident planning, emergency response, collection of evidence, analysis of information, investigation, organization, management and report writing.

OSHE 4321 Ergonomics, Human Factors and Workspace Design**Credit: 3 | Lecture: 3**

Ergonomics. Use of biological and engineering principles to design a safe and efficient workplace environment including biomechanics, anthropometry, heat and cold stress, vibration, pressure, illumination, work station and tool design and the presentation of visual, auditory and other sensory forms of information.

Prerequisites: BIOL 2302

OSHE 4323 Hazardous Materials and Emergency Management**Credit: 3 | Lecture: 3**

This course studies hazardous material storage, handling, effects and use as well as the most effective ways to respond to hurricanes, terrorist attacks and/or hazmat spills. It provides information to students as to how to deal with officials, how to establish command & control, coordinate communications, evacuate people and perform clean up. The course also includes emergency management, preparedness, local, state and federal government emergency management; as well as disaster relief organizations.

*Prerequisites: CHEM 2323***OSHE 4324 Fire Safety Engineering****Credit: 3 | Lecture: 3**

This course studies fire science, causes, prevention, inspection, etc. This includes purpose; definition; fire prevention activities, extinguishment, detection, hazards, fire behavior, fire causes, types of construction including structural features, flame spread, occupancy and fire load; inspection techniques, conducting inspections.

*Prerequisites: CHEM 1311, PHYS 1301***OSHE 4331 Air Pollution Science****Credit: 3 | Lecture: 3**

This course studies air pollution science and air quality. This includes historical events, sources and emissions, sampling and analysis, visibility and climate, indoor air quality, regulations, abatement, human exposures, health effects, toxicology, epidemiology and risk assessment.

*Prerequisites: BIOL 2302, CHEM 2323***OSHE 4333 Construction and General Industry Safety****Credit: 3 | Lecture: 3**

This covers safety and health principles in the construction and general industries as well as OSHA policies, procedures and standards. Special emphasis is placed on those areas that are most hazardous in construction and general industry.

OSHE 4334 Chemical Processing and Petroleum Refining**Credit: 3 | Lecture: 3**

This course covers the fundamentals of chemical processing, including basic process chemistry, equipment, diagrams, process flows, feedstock, and chemical products necessary to manufacturer chemical products on an industrial scale.

*Prerequisites: CHEM 2323***OSHE 4335 Process Safety and Chemical Risk Management****Credit: 3 | Lecture: 3**

This course covers the fundamentals of process safety management, risk-based process safety, and risk management plans to safeguard industrial chemical facilities that process flammable, combustible, reactive or toxic materials. The aim is on the prevention of toxic releases, fires and explosions that could cause loss of life, property damage and environmental harm. Includes historical incidents and their contributing causes and outcomes, as well as safety management systems and process safety regulations.

Prerequisites: CHEM 2323

OSHE 4336 Environmental Safety and Health**Credit: 3 | Lecture: 3**

Principles and concepts of environmental health and safety including essential information related to the recognition, evaluation and control of occupational and environmental hazards.

OSHE 4341 Advanced Studies in Occupational Safety and Health**Credit: 3 | Lecture: 3**

Approval of faculty adviser and associate dean. The selection, study and formal presentation of topics in Occupational Safety and Health based on advanced field, laboratory, library research study, supervised work experience in an approved industrial firm or government agency or educational work assignments. Written and oral reports required.

Prerequisites: 15 hours of upper-level credit.

OSHE 4379 Internship in Occupational Safety and Health**Credit: 3 | Lecture: 3**

Supervised work experience in an approved industrial firm or government agency. Written and oral reports required.

Prerequisites: 15 hours of upper-level credit; Approval of faculty adviser and associate dean

OSHE 4389 Independent Study in Occupational Safety and Health**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean

OSHE 4391 Selected Topics in Occupational Safety and Health**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

OSHE 4411 Noise and Hearing Conservation**Credit: 4 | Lecture: 3 | Lab: 1**

Anatomy and physiology of the human ear; sound propagation and the mechanism of hearing loss; federal and state noise regulations; noise measurement and analysis; establishing a hearing conservation and noise control program in industry. Includes laboratory and field experience with calibration and use of noise instrumentation.

Prerequisites: PHYS 1302

OSHE 4413 Industrial Ventilation**Credit: 4 | Lecture: 3 | Lab: 1**

General principles of ventilation, dilution ventilation, comfort ventilation; heat-cold stress control, hood design, air contaminant control; testing ventilation systems and industrial ventilation guidelines. Includes laboratory and field experience with industrial ventilation.

Prerequisites: MATH 1314 or higher.

OSHE 4422 Industrial Hygiene Sampling and Analysis**Credit: 4 | Lecture: 3 | Lab: 1**

Sampling and analysis for common occupational hazards including principles of calibration, laboratory and field management techniques. Includes laboratory and field experience with sampling and analysis methods and instrumentation.

Prerequisites: CHEM 2323, STAT 3308

PHIL Philosophy

PHIL 1301 Introduction to Philosophy

Credit: 3 | Lecture: 3 | Lab: 0

A study of major issues in philosophy and/or the work of major figures in philosophy. Topics in philosophy may include theories of reality, theories of knowledge, theories of value, and their practical applications.

PHIL 3321 Logic

Credit: 3 | Lecture: 3 | Lab: 0

An investigation of traditional approaches to correct and incorrect reasoning. The application of logic to our "everyday world" is an integral part of the course.

PHIL 3331 Ethics

Credit: 3 | Lecture: 3 | Lab: 0

A primary course in assessing ethical questions, judgments, and systems of morality. Readings will address contemporary ethical issues.

PHIL 3343 Philosophy of Knowledge

Credit: 3 | Lecture: 3 | Lab: 0

Historical approach to the theory of knowledge (epistemology). Issues addressed include skepticism, the role of sense perception, and the justification of knowledge claims. Readings include works by Plato, Descartes, Hume, and Kant.

PHIL 4314 The Great Philosophers I

Credit: 3 | Lecture: 3 | Lab: 0

Survey of the ideas of the great philosophers of the Western tradition from ancient Greece through the Middle Ages.

PHIL 4315 The Great Philosophers II

Credit: 3 | Lecture: 3 | Lab: 0

Survey of the ideas of the great philosophers of the modern Western world.

PHIL 4322 Philosophy of Religion

Credit: 3 | Lecture: 3 | Lab: 0

Investigation of the responses of philosophers and theologians to questions about the nature of God and the problem of evil.

PHIL 4389 Independent Study in Philosophy

Credit: 3 | Lecture: 0 | Lab: 0

Permission of instructor required.

PHIL 4391 Selected Topics in Philosophy

Credit: 3 | Lecture: 3 | Lab: 0

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

PHYS Physics

PHYS 1101 Laboratory for College Physics I

Credit: 1 | Lecture: 0 | Lab: 3

Laboratory to reinforce topics in College Physics I. Experiments on motion, Newton's laws, wave mechanics, heat and thermodynamics.

Corequisites: PHYS 1301

PHYS 1102 Laboratory for College Physics II

Credit: 1 | Lecture: 0 | Lab: 3

Laboratory to reinforce topics in College Physics II. Experiments conducted on electric fields, DC and AC circuits, magnetism, electromagnetic induction, light and optics.

Corequisites: PHYS 1302

PHYS 1301 College Physics I**Credit: 3 | Lecture: 3**

Algebra based introductory physics course. Fundamentals of mechanics, kinematics, Newton's laws, conservation of energy, momentum, rigid body motion, waves, sound, fluids, heat and thermodynamics.

Prerequisites: MATH 1314 and Trigonometry or MATH 2412

Corequisites: PHYS 1101

PHYS 1302 College Physics II**Credit: 3 | Lecture: 3**

Algebra based introductory physics course. Electric forces and fields, current, DC and AC circuits, magnetism, electromagnetic induction, electromagnetic waves, light and optics.

Prerequisites: PHYS 1101, PHYS 1301

Corequisites: PHYS 1102

PHYS 2125 Laboratory for University Physics I**Credit: 1 | Lecture: 0 | Lab: 3**

Introduction to data acquisition and analysis in physics. Instrumentation used to conduct experiments on motion, kinematics, wave mechanics, sound and heat. Topics also to include statistical methods, graphing, error analysis, computer techniques and reporting results.

Corequisites: PHYS 2325

PHYS 2126 Laboratory for University Physics II**Credit: 1 | Lecture: 0 | Lab: 3**

Instrumentation used to conduct experiments on electrical circuits and optics. Topics include Ohm's Law, series and parallel circuits, electrical power EMF, RLC Components, optical elements and visual phenomena.

Corequisites: PHYS 2326

PHYS 2325 University Physics I**Credit: 3 | Lecture: 3**

Calculus based introductory physics course. Fundamentals of linear and rotational kinematics and dynamics, Newton's laws, work, energy, conservation, gravitation, wave mechanics, sound, fluid mechanics, heat and thermodynamics.

Prerequisites: MATH 2413

Corequisites: PHYS 2125

PHYS 2326 University Physics II**Credit: 3 | Lecture: 3**

Calculus based introductory physics course. Electric forces and fields, Gauss' laws, DC and AC circuits, magnetic forces and fields, electromagnetic induction, Maxwell's equations, electromagnetic waves, geometric optics and introduction to modern physics.

Prerequisites: MATH 2414, PHYS 2325

Corequisites: PHYS 2126

PHYS 3103 Laboratory for Modern Physics**Credit: 1 | Lecture: 0 | Lab: 3**

This course provides students with the exposure to modern physics phenomena and a variety of experimental techniques which develops a broad background essential for the future understanding of and the performance of research in physics. It includes experimental testing of quantum mechanics and its applications to atomic physics and light.

Corequisites: PHYS 3303

PHYS 3303 Modern Physics**Credit: 3 | Lecture: 3**

An introduction to topics in modern physics. Black-body radiation, quantum mechanics, atomic and molecular physics, solid state physics, special relativity, nuclear and particle physics.

Prerequisites: PHYS 2326 or equivalent

Corequisites: PHYS 3103

PHYS 3311 Mathematical Methods for Physics and Engineering I**Credit: 3 | Lecture: 3**

Overview of the essential mathematics needed for advanced Physics courses including: Vector Analysis in flat and curved coordinates, Matrices, Group Theory, Infinite Series, Complex Variables and Differential Equations.

Prerequisites: MATH 2315

PHYS 3312 Mathematical Methods for Physics and Engineering II**Credit: 3 | Lecture: 3**

A continuation of Mathematical Methods for Physicists I including such topics as Special Functions, Legendre Polynomials, Bessel Functions, Fourier Series, Integral Transforms, Partial Differential Equations, Probability and Calculus of Variations.

Prerequisites: PHYS 3311 or equivalent.

PHYS 3321 Intermediate Mechanics**Credit: 3 | Lecture: 3**

This course is an advanced undergraduate study of the classical motion of particles according to Newton's Theory. In this course we study Rectilinear motion, Oscillations, Noninertial Reference Systems, Central Forces, Systems of Particles and Rigid Body Motion.

Prerequisites: PHYS 3303 or equivalent.

PHYS 3331 Intermediate Electromagnetism**Credit: 3 | Lecture: 3**

A thorough introduction to electrostatics, magnetostatics and electrodynamics. Practical examples and some demonstration experiments will be used to connect the elegant mathematical theory of electromagnetism with physical intuition.

Prerequisites: PHYS 3303 or equivalent.

PHYS 3342 Quantum Theory I**Credit: 3 | Lecture: 3**

Experimental basis of quantum theory. Postulates of quantum mechanics. Uncertainty principle. Operator methods and the wave equation, Time-independent Schrodinger equation, Wave-equation in three dimensions, Angular momentum and the Hydrogen atom.

Prerequisites: PHYS 3303 or equivalent.

PHYS 3343 Quantum Theory II**Credit: 3 | Lecture: 3**

Continuation of Quantum Theory I. This course covers quantum physics with applications drawn from modern physics. Topics include general formalism of quantum mechanics, harmonic oscillator, quantum mechanics in three dimensions, angular momentum, spin, and addition of angular momentum.

Prerequisites: PHYS 3342

PHYS 3351 Thermodynamics & Statistical Mechanics**Credit: 3 | Lecture: 3**

Temperature, heat and work, thermodynamic properties of gases, solids and solutions; homogeneous and heterogeneous equilibria; thermodynamics of electrochemical cells; statistical thermodynamics; calculation of thermodynamic properties; chemical kinetics.

Prerequisites: PHYS 3303 or equivalent.

PHYS 4115 Physics Practicum**Credit: 1 | Lecture: 0 | Lab: 3**

Practical experience at an on-campus or off-campus facility. Requires junior or senior standing, pre-acceptance interview, minimum of 50 hours of work over the term and approval of instructor.

PHYS 4189 Independent Study in Physics**Credit: 1 | Lecture: 1**

Prerequisites: Approval of instructor, chair and associate dean.

PHYS 4195 Cooperative Education Work Term**Credit: 1 | Lecture: 1**

Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester. (Specific requirements are noted in the Cooperative Education Catalog description).

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

PHYS 4201 Advanced Physics Lab**Credit: 2 Lab: 6**

Experimental physics lab utilizing advanced instrumentation and techniques.

Prerequisites: PHYS 3103, PHYS 3303

PHYS 4202 Computational Physics**Credit: 2 | Lecture: 1 | Lab: 3**

This course is a project-driven lecture/lab intended to give students a deeper understanding of how to solve physics problems through a series of computational projects. Projects will cover topics from introductory physics courses including projectile motion, oscillatory motion, Newton's law of gravity and electric and magnetic fields. Students will learn to write computer programs on computers using the Linux operating system.

PHYS 4322 Statics and Mechanics of Materials**Credit: 3 | Lecture: 3**

This course introduces students to the fundamental principles and methods of structural mechanics. Topics covered include: static equilibrium, force resultants, support conditions, analysis of determinate planar structures (beams, trusses, frames), stresses and strains in structural elements, states of stress (shear, bending, torsion), statically indeterminate systems, displacements and deformations, introduction to matrix methods, elastic stability, and approximate methods.

Prerequisites: PHYS 2325

PHYS 4333 Special Relativity**Credit: 3 | Lecture: 3**

In this course we derive Einstein's theory of special relativity, Lorentz transformations and relativistic electrodynamics using tensor analysis and spacetime diagrams.

Prerequisites: PHYS 3331 or Instructor approval.

PHYS 4352 Fluids and Heat Transfer**Credit: 3 | Lecture: 3**

The course introduces fluid mechanics and heat transfer. The fluid mechanics section includes the flow of gases and liquids through tubing and various kinds of process apparatus. The flow of bubbles in liquids and drops in gases will also be discussed along with the flow of gases and liquids through packed and fluidized particle beds. Bernoulli's equation will be used. The heat transfer section includes heat transfer by conduction, convection and radiation in liquids, gases and solids.

Prerequisites: PHYS 2325, PHYS 2326

PHYS 4362 Fundamentals of Astroparticle Physics**Credit: 3 | Lecture: 3**

Topics include: Introduction to high energy physics, symmetries and conservation rules, neutrino astrophysics, particle cosmology and astrophysics.

Prerequisites: PHYS 3303 or equivalent.

PHYS 4371 Research Seminar I**Credit: 3 | Lecture: 3**

First of a two-semester capstone experience. Research methods, literature search, writing a scientific paper. Seminar speaker reviews on current research in physics, space science and engineering. Development of a supervised research project. Written report and oral presentation.

Prerequisites: Senior standing, Instructor approval required.

PHYS 4372 Research Seminar II**Credit: 3 | Lecture: 3**

Second of a two-semester capstone experience. Supervised research in physics. Seminar speaker reviews on current research in physics, space science and engineering. Written report and oral presentation.

Prerequisites: PHYS 4371.

PHYS 4379 Internship in Physics**Credit: 3 | Lecture: 3**

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: 15 hours of upper-level credit; approval by program chair and associate dean.

PHYS 4389 Independent Study in Physics**Credit: 3 | Lecture: 3**

Prerequisites: Approval of instructor, chair and associate dean.

PHYS 4391 Selected Topics in Physics**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

POLS Political Science

POLS 2305 Federal Government**Credit: 3 | Lecture: 3 | Lab: 0**

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.

POLS 2306 Texas Government**Credit: 3 | Lecture: 3 | Lab: 0**

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, and the political culture of Texas.

POLS 3301 Contemporary Issues in Political Science**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of current issues and problems in American and international politics.

POLS 3331 Legislative Process**Credit: 3 | Lecture: 3 | Lab: 0**

Functions of the United States Congress and the Texas Legislature; legislative relationships with other sectors of government.

POLS 3332 State and Local Government**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis of state and local government with special emphasis on the Texas State Legislature and the Houston City Council.

POLS 3361 Politics and Film**Credit: 3 | Lecture: 3 | Lab: 0**

Relationship between film and politics with special attention given to the role of film in the transmission of political information and ideas.

POLS 4312 Race and Ethnic Politics**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of relationship between racial and ethnic minorities and the American political system.

POLS 4313 Civil Liberties in America**Credit: 3 | Lecture: 3 | Lab: 0**

Factors and forces that have altered the scope of civil liberties in the U.S.; history and analyses.

POLS 4314 Chief Executive**Credit: 3 | Lecture: 3 | Lab: 0**

Constitutional, political, and administrative responsibilities of chief executives in government in comparison to the President of the United States.

POLS 4315 Judicial Process**Credit: 3 | Lecture: 3 | Lab: 0**

The role of law, lawyers, and judges in influencing social and political change in America; history and analyses.

POLS 4317 Voting and Elections**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis of electoral behavior in the United States including determinants of the vote, election turnout, issues and elections, and media in elections.

POLS 4342 International Relations**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis of the major theoretical approaches to international politics; explores important historical and contemporary questions and debates in international affairs.

POLS 4355 Political Philosophy**Credit: 3 | Lecture: 3 | Lab: 0**

This course provides a frame of reference for classifying and assessing the merits of individual political theories in terms of their philosophical foundations.

POLS 4391 Selected Topics in Political Science
Credit: 3 | Lecture: 3 | Lab: 0

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

PSLD Public Service Leadership

PSLD 4325 Budgeting in Public Service**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the theory and practice of budgeting in the public setting.

PSLD 4326 Human Resources**Credit: 3 | Lecture: 3 | Lab: 0**

Problems and practices in human resource management; selection, placement, evaluation, promotion, and termination in the public sector.

PSLD 4327 Organizational Behavior**Credit: 3 | Lecture: 3 | Lab: 0**

This course exposes students to advanced behavioral science theories and applications in management and draws from numerous disciplines including law, psychology, sociology, economics, organization theory, and statistics.

PSLD 4340 Current Issues in Representative Bureaucracy**Credit: 3 | Lecture: 3 | Lab: 0**

This course will cover both intellectual and practical bureaucratic issues facing public servants over the past decade. The topics covered in this course will provide a foundation for further academic research, as well as important knowledge of the extant research for practitioners in public organizations.

PSLD 4342 Project Management**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of organization, planning, and implementation of activities related to a project. Provides practical knowledge on managing project scope, schedule, and resources.

PSLD 4343 Public Service Management**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of basic theories of administrative organization, relationships, and behavior. How to structure, manage, direct, and control units within fire service organizations.

PSLD 4344 Public Service Leadership**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of determinants and consequences of effective and ineffective leadership in fire service organizations.

PSLD 4345 Strategic Planning**Credit: 3 | Lecture: 3 | Lab: 0**

Strategic planning and facilitation of organizational change in fire service organizations.

PSLD 4347 Managerial Issues in Diversity**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of the ideas necessary for leading a diverse workforce successfully.

PSLD 4348 Crisis and Emergency Management**Credit: 3 | Lecture: 3 | Lab: 0**

The focus of this course is to provide students with an understanding and overview of crisis management and the constituent elements and implications of crises that professional may face on the personal, work, local, regional, national, and international levels.

PSLD 4349 Ethics and Law**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the unique ethical challenges faced by leaders with an emphasis on building ethical competency while investigating the legal aspects.

PSLD 4389 Independent Study in Public Service Leadership**Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required.

PSLD 4391 Selected Topics in Public Service Leadership**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

PSYC Psychology

PSYC 1100 Learning Frameworks**Credit: 1 | Lecture: 1 | Lab: 1**

An inquiry around the broad, interdisciplinary concepts of civic engagement and citizenship for students to explicitly examine and engage in advanced critical thinking for university study. This course promotes intellectual readiness by helping students build and find the resources to become personally responsible and active members of the university community, their education, and their world.

PSYC 1300 Learning Frameworks**Credit: 3 | Lecture: 3 | Lab: 1**

An inquiry around the broad, interdisciplinary concepts of civic engagement and citizenship for students to explicitly examine and engage in advanced critical thinking and cognition, acquisition of resources, introduction to research, and service learning.

PSYC 2301 Introduction to Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of the major psychological topics, theories, and approaches to the scientific study of behavior and mental processes.

PSYC 2314 Human Growth and Development Lifespan**Credit: 3 | Lecture: 3 | Lab: 0**

Lifespan Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death.

PSYC 2317 Statistical Methods in Psychology**Credit: 3 | Lecture: 3**

An introduction to and application of commonly used quantitative statistics in psychology and other behavioral sciences. It will focus on answering research questions using appropriate statistical techniques and interpretation of results.

PSYC 2319 Social Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

Attitudes, social cognition, personal perceptions, self, social influences, relationships, prejudice, helping, and aggression. Theories, research, and application.

PSYC 2330 Biological Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

The biological basis for how one thinks, feels, and acts.

PSYC 3311 Careers and Writing in Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

This course covers careers in psychology, provides experience with preparing for job searches and graduate school application process, and introduces students in APA style writing in the social sciences. For Psychology majors only. Psychology majors should take this course in the first semester of their junior year at the latest.

PSYC 3315 Psychological Thinking**Credit: 3 | Lecture: 3 | Lab: 0**

Focuses on gaining skills necessary to understand and critique issues and research from a psychological perspective. Emphasis will be on critical thinking and expression of ideas, APA style, and journal reading. Psychology majors must take this course in the first semester of their junior year.

PSYC 3321 Learning**Credit: 3 | Lecture: 3 | Lab: 1**

Basic principles of learning and how they apply to human behavior. For students interested in taking the Board Certified Behavior Analyst (BCBA) exam, this course serves as the first course in a 4-course sequence. Prerequisite: PSYC 2301 Introduction to Psychology.

PSYC 3327 Practicum in Peer Mentoring and Leadership**Credit: 3 | Lecture: 0 | Lab: 0**

This upper-level course will focus on applying the tenants of critical thinking to higher education students' success and development through the practice of peer mentoring. This is a rigorous course using research from the fields of psychology and higher education within service learning.

Prerequisites: Students must have completed 45 credit hours and must have a 2.75 G.P.A.

PSYC 3331 Theories of Personality**Credit: 3 | Lecture: 3 | Lab: 0**

Theories of the origins, structure, and dynamics of personality; emphasis on the "normal" personality.

PSYC 3333 Human Sexuality**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of psychological, biological, and cultural viewpoints on sexual behavior, including research on attraction, gender, sexual dysfunction, sexual variations, sexual orientation, and sexual coercion.

PSYC 3334 Drugs and Behavior**Credit: 3 | Lecture: 3 | Lab: 0**

Mechanisms and effects of alcohol, opiates, sedatives, tranquilizers, stimulants, psychedelics, and other psychotropic drugs; problems of abuse and attempts at control and education.

PSYC 3335 Behavioral Pharmacology Research
Credit: 3 | Lecture: 0 | Lab: 3

Laboratory investigation of drug/brain/behavior relationships in the rat. Readings from primary research literature, laboratory experiments, and research reports. Permission of instructor required.

PSYC 3336 Behavioral Neuroscience Research
Credit: 3 | Lecture: 0 | Lab: 3

Laboratory investigation of brain/behavior relationships in the rat. Readings from primary research literature, laboratory experiments, and research reports. Permission of instructor required.

PSYC 3341 Human Factors Psychology
Credit: 3 | Lecture: 3 | Lab: 0

Covers how users should be included in design process including needs analysis, requirements writing, iterative testing of low/medium/high fidelity prototypes, and implementation.

PSYC 4189 Independent Study in Psychology
Credit: 1 | Lecture: 0 | Lab: 0

Permission of instructor required. May be taken for 1 hour of credit. For 3 hours of Independent Study credit, students should enroll in PSYC 4389.

PSYC 4314 Child Psychology
Credit: 3 | Lecture: 3 | Lab: 0

Cognitive, social, and emotional development of children; psychoanalytic, behavioristic, and Piagetian approaches.

PSYC 4315 Adolescent Psychology
Credit: 3 | Lecture: 3 | Lab: 0

Problems of role and identity in relation to adolescents' needs for acceptance, autonomy, and intimacy; special attention will be given to topics such as sexual maturation, love and friendship, and drug abuse.

PSYC 4318 Sensation and Perception
Credit: 3 | Lecture: 3 | Lab: 0

This course will expose students to the complexities and mechanism of human perception. Class will focus not only on the details of human perception but also the application of such knowledge. The design of the course will utilize applied learning techniques and will involve work outside the classroom.

PSYC 4321 Applied Behavior Analysis I
Credit: 3 | Lecture: 3 | Lab: 0

Second course in a 4-course sequence to prepare students for the Board Certified Assistant Behavior Analyst (BCaBA) exam. This course covers the essential components of behavior change and specific behavior change procedures.
Prerequisites: Pre- or Co-requisite: PSYC 3321

PSYC 4322 Applied Behavior Analysis II
Credit: 3 | Lecture: 3 | Lab: 0

Third course in a 4-course sequence to prepare students for the Board Certified Assistant Behavior Analyst (BCaBA) exam. Topics include: use of learning principles in applied areas such as education, business, health and human services, behavior change systems and management; and professional issues in behavior analysis. Prerequisites: Pre or Co-requisite: PSYC 3321
Prerequisites: Pre or Co-requisite: PSYC 3321

PSYC 4323 Research and Practice in Behavior Analysis**Credit: 3 | Lecture: 3 | Lab: 0**

This course covers data analysis, research methods, ethics, and professional issues in behavior analysis. The course also will help prepare students to sit for the Board Certified Assistant Behavior Analyst (BCaBA) exam. Pre- or Co-requisite: PSYC 3321.

Prerequisites: Pre- or Co-requisite: PSYC 3321.

PSYC 4327 Practicum in Applied Behavior Analysis**Credit: 3 | Lecture: 3 | Lab: 0**

Supervised application of behavioral principals and methods in community settings. Students may enroll in this course twice.

Prerequisites: Pre- or Co-requisites: PSYC 3321

PSYC 4332 Psychology of Work**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of the issues, problems, and practices in industrial/organizational psychology. Topics include work group dynamics, attitudes, job analysis, employee selection, performance appraisal, training, and organizational development.

PSYC 4334 Psychology of Women**Credit: 3 | Lecture: 3 | Lab: 0**

The development of sex differences and sex roles; modern viewpoints on gender-appropriate behavior. Women's Studies Course.

PSYC 4341 Human Factors Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

Covers how users should be included in design process including need analysis, requirements writing, iterative testing of low/medium/high fidelity prototype, and implementation.

PSYC 4348 Development of Gender and Racial Identity**Credit: 3 | Lecture: 3 | Lab: 0**

Explores how children and adolescents come to understand gender and race and with their changing understanding, how they incorporate gender and race into their self-concept, and use them to define/categorize others.

PSYC 4349 Psychology of Latina/os in the U.S.**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the ways gender, race, culture, immigration, and social class shape the psychology of Latina/os in the United States. The course will consider identity development as a psychological construct and will explore identity formation of individual Latina/os as well as group identity for multiple sub-groups of Latina/os (e.g., Mexican, Puerto Rican, Cuban, Dominican, etc.)

PSYC 4356 The Aging Experience**Credit: 3 | Lecture: 3 | Lab: 0**

Examines cross-cultural differences, retirement, generational issues, death and dying, and political and social implications of the aging experience for today's and tomorrow's elderly. (Cross-listed with SOCI 4356.)

PSYC 4370 Nonexperimental Methods and Statistics**Credit: 3 | Lecture: 3 | Lab: 0**

This course will introduce you to the procedures for conducting non-experimental, correlational and qualitative, research in psychology. We will discuss nonexperimental methods and the appropriate procedures for analyzing nonexperimental data.

PSYC 4371 Experimental Methods and Statistics**Credit: 3 | Lecture: 3 | Lab: 0**

This course will introduce you to the procedures for conducting experimental research in psychology. We will discuss the experimental method and the appropriate statistical procedures for analyzing experimental data.

PSYC 4375 Personal Stress Management**Credit: 3 | Lecture: 3 | Lab: 0**

Various methodologies for stress management emphasizing personal applications.

PSYC 4382 Cognitive Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

An empirical and theoretical examination of human cognitive processes. Possible topics include perception, memory, problem solving, and artificial intelligence.

PSYC 4389 Independent Study in Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

Permission of instructor required. May be taken for 3 hours of credit. For 1 hour of Independent Study credit, students should enroll in PSYC 4189.

SENG Systems Engineering**SENG 4310 Introduction to Systems Engineering****Credit: 3 | Lecture: 3**

Overview of the systems engineering discipline. Topics include the systems engineering process, fundamentals of engineering economy and an introduction to probability and expectation with systems engineering applications.

Prerequisites: MATH 2315

SILC Studies in Language and Culture**SILC 4301 Spanish for Bilingual Teachers****Credit: 3 | Lecture: 3 | Lab: 0**

Development of advanced reading and writing skills in Spanish with special emphasis on communication with the bilingual community. Course taught in Spanish.

Prerequisites: Fluency in Spanish.

SILC 4302 Introduction to the Study of Languages**Credit: 3 | Lecture: 3 | Lab: 0**

Study of phonology, morphology, syntax and semantics of the English language.

SILC 4310 Foundations of Bilingual and ESL Education**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of social, political, economic and educational issues related to the development and implementation of bilingual education and ESL programs.

SILC 4311 ESL Methods**Credit: 3 | Lecture: 3 | Lab: 0**

Emphasis on teaching English to second language learners in the ESL classroom and on putting theory into practice.

SILC 4312 Content-Based ESL**Credit: 3 | Lecture: 3 | Lab: 0**

Issues related to the integration of content with ESL instruction. Field experiences required.

SILC 4313 Language Learning**Credit: 3 | Lecture: 3 | Lab: 0**

Analysis of language acquisition and second language learning.

SILC 4315 Theories of American Pluralism**Credit: 3 | Lecture: 3 | Lab: 0**

A review of theoretical foundations of pluralism and their impact on mainstream America.

SILC 4316 Bilingual Curriculum in the Content Areas**Credit: 3 | Lecture: 3 | Lab: 0**

Study and design of the content area curriculum within a bilingual education program. Course taught in Spanish and English.

Prerequisites: Fluency in Spanish and SILC 4301.

SILC 4317 Developing Content Literacy in the Bilingual Classroom**Credit: 3 | Lecture: 3 | Lab: 0**

Methods of developing English literacy in the bilingual classroom content areas. Emphasis is on the relationship between native language and second language development.

SILC 4318 Linguistic Diversity in Young Children**Credit: 3 | Lecture: 3 | Lab: 0**

The purpose of this course is to examine the language development of children from birth to age five. Emphasis is placed on first and second language acquisition, the role of the first language, and how second language development can be supported.

SILC 4351 Development of Biliteracy**Credit: 3 | Lecture: 3 | Lab: 0**

A comprehensive study of theories and research dealing with the development of biliteracy. Course taught in Spanish and English.

Prerequisites: Fluency in Spanish and SILC 4301.

SILC 4389 Independent Study in Bilingual Education/ESL**Credit: 3 | Lecture: 3 | Lab: 0**

Prerequisites: Approval of instructor and associate dean.

SILC 4391 Selected Topics in the Studies of Language and Culture**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by title each time course offered.

SOCI Sociology

SOCI 1301 Introduction to Sociology**Credit: 3 | Lecture: 3 | Lab: 0**

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**Credit: 3 | Lecture: 3 | Lab: 0**

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 Intro to Social Work**Credit: 3 | Lecture: 3 | Lab: 0**

Lower Level Sociology Elective

SOCI 2319 Multi-Cultural Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Lower Level Sociology Elective

SOCI 3312 Criminology**Credit: 3 | Lecture: 3 | Lab: 0**

Theories of causation, patterns, and social response.

SOCI 3316 Global Sociology**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the way the worldwide process of globalization is connected to local economic, political, and cultural practices and identities.

SOCI 3317 Religion and Immigration Studies in Houston**Credit: 3 | Lecture: 3 | Lab: 0**

This course will explore the religious diversity of Houston. Of particular interest is the diversity of religious practices new immigrants bring with them to the U.S. This diversity is not limited to variations across religious traditions but diversity within religious traditions as well. (Cross-listed with SOCI 5233.)

SOCI 3335 Deviance**Credit: 3 | Lecture: 3 | Lab: 0**

Theories of the existence of deviance in society; management of spoiled identities.

SOCI 3351 Political Sociology**Credit: 3 | Lecture: 3 | Lab: 0**

The social bases of power; strategies for developing political influence; focus of power in America; relations between citizens and authorities; problems of political legitimacy.

SOCI 3352 Urban Sociology**Credit: 3 | Lecture: 3 | Lab: 0**

The social organization of urban life and the structure of power in communities; urban problems and strategies for change.

SOCI 4306 Service Learning**Credit: 3 | Lecture: 3 | Lab: 0**

Service Learning is a course designed for students to take an active part in organized experiences that meet actual community needs combined with academic instruction, focusing on critical, reflective thinking and personal and civic responsibility. This course will involve students in activities that address community-identified needs with service integrating academic skills.

SOCI 4308 Perspectives in Women's and Gender Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Interdisciplinary topics course in women's and gender studies, topic to be determined by instructor at time of offering. Introduces students to analytical concepts and critical approaches for understanding the lives of women and the construction of gender within larger social, political, and cultural structures.

SOCI 4311 Social Psychology**Credit: 3 | Lecture: 3 | Lab: 0**

Conformity, mass communication and propaganda, self-justification, prejudice, human aggression, attraction, cooperation and competition theory, research, and application. (Cross-listed with PSYC 4311.)

SOCI 4312 Social Structure: Class, Power, and Status**Credit: 3 | Lecture: 3 | Lab: 0**

Various interpretations of America's system of social stratification.

SOCI 4313 Juvenile Delinquency**Credit: 3 | Lecture: 3 | Lab: 0**

Individual and community aspects of juvenile delinquency; theories of causes and modes of control.

SOCI 4316 Women and the Law**Credit: 3 | Lecture: 3 | Lab: 0**

Evolution of women's legal rights in the United States. Examination of contemporary issues in the context of human rights law. Legal status of women in economic, political, and judicial sectors. (Cross-listed with WGST 4316.)

SOCI 4317 Race and the Law**Credit: 3 | Lecture: 3 | Lab: 0**

Evolution of legal rights of race/ethnic groups in U.S. from a sociological perspective. Examination of civil rights movement, hate crimes, and Affirmative Action policy.

SOCI 4322 Theories of Society**Credit: 3 | Lecture: 3 | Lab: 0**

A review of historical and contemporary statements on the nature of society by philosophers and scientists.

SOCI 4323 Religion in Society**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the major theories of religion in society and empirical research on religious membership and participation; study of issues such as secularization and the role of religion in modern society.

SOCI 4324 Organizations in Society**Credit: 3 | Lecture: 3 | Lab: 0**

Study of several aspects of our organizational society such as roles, power, and membership; investigation of many types of organizations and their influence on individuals.

SOCI 4328 Social Conflict and Mediation**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of theories of social conflict and application of dispute resolution/mediation techniques to needs of community groups, courts, churches, businesses, and non-governmental agencies.

SOCI 4329 Egypt in Transition**Credit: 3 | Lecture: 3 | Lab: 0**

Course will expose students to culture, history, religion, and politics of Egypt and the Middle East. It explores sociological, historical, and cross-cultural forces shaping modern Egypt.

SOCI 4330 Cultural Study Abroad**Credit: 3 | Lecture: 3 | Lab: 0**

Course will expose students to culture, history, religion, and politics of another country. Involves foreign travel and includes prerequisite of semester-long course focusing on the study-abroad country. Permission of instructor required.

SOCI 4331 Prison and Society**Credit: 3 | Lecture: 3 | Lab: 0**

Correctional institutions in the United States; analysis of their changing roles and functions.

SOCI 4332 Sociology of Law**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the classic confrontation between the rights of the individual and the welfare of the greater society and an examination of the most emotionally charged and problematic issues from the perspectives of sociological, philosophical, and legal theories.

SOCI 4334 Criminal Law**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of structure and rationale for criminal law; topics include criminal liability, criminal defenses, and types of offenses.

SOCI 4335 Social Change and Social Movements**Credit: 3 | Lecture: 3 | Lab: 0**

This course will explore macrosocial historical change in American society through protest, innovation, and social movements.

SOCI 4341 Women in Society**Credit: 3 | Lecture: 3 | Lab: 0**

A cross-cultural study of the environment, biological and cultural factors in the division of labor and assignment of roles, male and female. Women's Studies Course (Cross-listed with ANTH 4341 and WGST 4341).

SOCI 4343 Public Service Management**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of basic theories of administrative organization, relationships, and behavior. How to structure, manage, direct, and control units within governmental organizations. (Cross-listed with PSLD 4343.)

SOCI 4344 Public Service Leadership**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of determinants and consequences of effective and ineffective leadership in non-profit and governmental organizations. (Cross-listed with PSLD 4344.)

SOCI 4355 Minorities in America**Credit: 3 | Lecture: 3 | Lab: 0**

Economic, political, and social status of minority subcultures; the changing nature of minority/majority relations. May include Women's Studies content.

SOCI 4356 The Aging Experience**Credit: 3 | Lecture: 3 | Lab: 0**

Examines cross-cultural differences, retirement, generational issues, death and dying, and political and social implications of the aging experience for today's and tomorrow's elderly. (Cross-listed with PSYC 4356.)

SOCI 4357 Sociology of Family, Work, and Gender**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of the competing responsibilities of market work and family work in the contemporary United States and the role gender has on both domains.

SOCI 4358 Family and Society**Credit: 3 | Lecture: 3 | Lab: 0**

Social and legal foundations of the family as an institution, examined in the context of marriage, sex roles, and child rearing.

SOCI 4359 Family Policy**Credit: 3 | Lecture: 3 | Lab: 0**

An in-depth examination of family policy in the U.S. and the tools to analyze critically any family policy.

SOCI 4363 American Immigration and the Immigrant Experience**Credit: 3 | Lecture: 3 | Lab: 0**

Examines the history of American immigration with particular emphasis on Asian and Hispanic/Latino migration and explores sociological issues surrounding the contemporary immigration debate in the U.S.

SOCI 4364 Medical Sociology**Credit: 3 | Lecture: 3 | Lab: 0**

Examines the sociological dimensions of health, illness, and healing, focusing on health disparities, social causes of health and illness, illness and identity, and the organization and delivery of health care in the U.S. and beyond.

SOCI 4365 Sociology of Mental Health and Illness**Credit: 3 | Lecture: 3 | Lab: 0**

An introduction to theoretical and substantive issues concerning mental health and illness, including historical perspectives, current patterns of health and illness, help-seeking behavior, and identity and labeling.

SOCI 4367 Women's Health and Sexuality**Credit: 3 | Lecture: 3 | Lab: 0**

Focuses on social factors that affect women's health, health care, and medical attitudes toward the female body. We will also explore how social and policy changes can improve or threaten women's health. (Cross-listed with WGST 4335.)

SOCI 4384 Statistics**Credit: 3 | Lecture: 3 | Lab: 1**

Teaches students how to use, understand, and conduct data analysis.

Prerequisites: College Algebra. SOCI 4385

SOCI 4385 Research Methods**Credit: 3 | Lecture: 3 | Lab: 0**

Teaches students how to design, understand, evaluate, and conduct various forms of social research. Students are encouraged to take Research Methods before taking Statistics.

Prerequisites: College Algebra.

SOCI 4389 Independent Study in Sociology**Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required.

SOCI 4391 Selected Topics in Sociology**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

SPAN Spanish

SPAN 1311 Beginning Spanish I**Credit: 3 | Lecture: 3 | Lab: 0**

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**Credit: 3 | Lecture: 3 | Lab: 0**

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**Credit: 3 | Lecture: 3 | Lab: 0**

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**Credit: 3 | Lecture: 3 | Lab: 0**

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 3311 Intensive Spanish II**Credit: 3 | Lecture: 3 | Lab: 0**

Focus on the intensive study of spoken and written language to facilitate spontaneity of expression.

Prerequisites: 2000-level Spanish or the equivalent.

SPAN 3312 Intensive Spanish III**Credit: 3 | Lecture: 3 | Lab: 0**

Focus on the intensive study of spoken and written language to facilitate spontaneity of expression.

Prerequisites: SPAN 3311 or the equivalent.

SPAN 4391 Selected Topics in Spanish**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

SPED Special Education**SPED 2301 Introduction to Special Populations****Credit: 3 | Lecture: 3 | Lab: 0**

This course provides foundational knowledge of various categories of disabilities and its effects on different variables to include the perspectives of gender, socioeconomic status, cultural responsiveness, and access to the general education curriculum.

Prerequisites: TCED 1301

SPED 4300 Survey of Exceptionalities**Credit: 3 | Lecture: 3 | Lab: 0**

The course will provide a study of teaching students with disabilities and diverse needs with an emphasis on making individualized effective instructional decisions.

Prerequisites: SPED 2301 or equivalent

SPED 4311 Assessment in Special Education**Credit: 3 | Lecture: 3 | Lab: 0**

A survey of special education assessment procedures with a focus on alternate assessment procedures used in inclusive settings to link assessment and instruction.

Prerequisites: SPED 2301 or equivalent

SPED 4312 Diagnostic Instruction for Learners With Special Needs**Credit: 3 | Lecture: 3 | Lab: 0**

Covers the development and application of curricula, materials, methodologies and classroom practices in response to the strengths and needs of all low-performing students in special education and inclusive settings. Field experiences required.

Prerequisites: SPED 2301 or equivalent, SPED 4311 or equivalent.

SPED 4313 Individualizing Instruction for Students With Disabilities**Credit: 3 | Lecture: 3 | Lab: 0**

This course is for undergraduate students only. Covers necessary adaptations to meet the learning needs of exceptional students, for prescriptive models for intervention and ways of observing, recording and responding to behaviors. Field experiences required.

Prerequisites: SPED 2301, SPED 4311, SPED 4312, SPED 4321, SPED 4332 or equivalents.

SPED 4321 Implementing Positive Behavior Supports**Credit: 3 | Lecture: 3 | Lab: 0**

A comprehensive study of related legal and social issues and the implementation of techniques for supporting students with challenging behaviors in home and school settings. Field experiences required.

Prerequisites: SPED 2301

SPED 4332 Early Childhood Special Education**Credit: 3 | Lecture: 3 | Lab: 0**

This course provides a comprehensive overview of early childhood special education. Content integrates theory, law, research, and current evidence-based practices associated with serving young children (birth through age eight), who present a wide range of special needs. Emphasis of content is on early childhood programs associated with public schools. Field experience is required.

Prerequisites: SPED 2301

SPED 4333 Advanced Early Childhood Special Education**Credit: 3 | Lecture: 3 | Lab: 0**

This course will extend key topics in early childhood special education presented in the SPED 4332/ECED 4332 course, specifically strategies and techniques used by practitioners in early childhood special education settings serving children birth to age five.

SPED 4377 Practicum in Special Education for Young Children**Credit: 3 | Lecture: 3 | Lab: 0**

Fieldwork with infants and/or young children with special needs to include school-based, agency-based or private programs.

Prerequisites: Completion of all prior coursework for the Early Childhood Handicapped Endorsement.

SPED 4389 Independent Study of Individual Differences**Credit: 3 | Lecture: 3 | Lab: 0**

Prerequisites: Approval of instructor and associate dean.

SPED 4391 Selected Topics in Special Education**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered.

STAT Statistics

STAT 1342 Elementary Statistical Methods

Credit: 3 | Lecture: 3

Collection, analysis, presentation and interpretation of data; probability, sampling, correlation and regression, analysis of variance and the use of statistical software. Not available for mathematics majors.

Prerequisites: Meet TSI college-readiness standard for Mathematics; or equivalent.

STAT 3308 Computational Statistics

Credit: 3 | Lecture: 3

Descriptive statistics, basic probability concepts, normal distribution, parameter estimation, testing of hypothesis, correlation and regression, statistical computation using Excel.

Prerequisites: MATH 1314 or equivalent. Not available for mathematics majors.

STAT 3334 Probability and Statistics for Scientists and Engineers

Credit: 3 | Lecture: 3

Graphical representation of data, measures of centrality and variability, concepts and rules of probability, discrete probability distribution, normal distribution, sampling distributions, central limit theorem, parameter estimation, testing of hypothesis, two sample methods, analysis of variance, correlation and regression analysis.

Prerequisites: MATH 2413, MATH 2414; Not available for mathematics majors.

STAT 4315 Applied Statistical Methods

Credit: 3 | Lecture: 3

One and two sample methods, analysis of variance, correlation and regression, analysis of covariance, statistical modeling and robustness. Introduction to statistical computation using Excel and statistical software packages.

Prerequisites: STAT 3308 or equivalent.

STAT 4326 Introduction to Survey Sampling

Credit: 3 | Lecture: 3

An introduction to the design of sample surveys and the analysis of survey data. This course emphasizes practical applications of survey methodology. Sample designs covered include simple random sampling, systematic sampling; stratified, cluster and multistage sampling. Analytical methods include sample size determination, ratio and regression estimation and imputation for missing data.

Prerequisites: Consent of Instructor

STAT 4328 Introduction to Statistical Computing Packages

Credit: 3 | Lecture: 3

An introduction to the statistical computing packages, such as Microsoft Excel, Minitab, R, SAS, etc. The course will focus on basic data display (including various plots and tables) and fundamental statistical analysis, such as one and two-sample hypothesis test, simple analysis of variance, simple regression data analysis.

Prerequisites: MATH 2413

STAT 4333 Statistical Computing**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to SAS and R; topics include data management, reporting, graphical displays, macros, statistical analysis and interpretation and related topics.

Prerequisites: MATH/STAT 4345 or instructor approval.

STAT 4344 Introduction to Probability**Credit: 3 | Lecture: 3**

Sample space, probability function, combinatorics, discrete and continuous random variables, special probability distributions, moment generating function, multivariate distributions and central limit theorem.

Prerequisites: MATH 2414

STAT 4345 Introduction to Statistics**Credit: 3 | Lecture: 3**

Sampling distributions, point and interval estimation, hypothesis testing, regression and correlation, nonparametric statistics, analysis of variance.

Prerequisites: MATH/STAT 4344

STAT 4346 Probability for Actuarial Exam P1**Credit: 3 | Lecture: 3**

This course is designed to help students prepare for the first actuarial exam preparation. This course consists of introducing/ reviewing concepts and rules of probability and statistics and studying sample actuarial examinations and related material. Students are given sample problems from past actuarial examinations to study outside of class. The solution of these problems and related material are discussed in class.

Prerequisites: MATH/STAT 4344

STAT 4348 Introduction to Financial Math for Exam FM**Credit: 3 | Lecture: 3**

This course is designed to help students prepare for the second actuarial exam preparation.

This course consists of introducing the basics of sample interest and discount, compound interest and discount and simple annuities and studying sample actuarial examinations and related material. Students are given sample problems from past actuarial examinations to study outside of class. The solution of these problems and related material are discussed in class.

Prerequisites: MATH 2413

STAT 4350 Financial Economics**Credit: 3 | Lecture: 3**

A mathematical insight of some fundamental concepts of financial mathematics and financial economics and their application to real world business situations and basic risk management. An introduction to mathematical approach to understanding stochastic calculus, asset pricing, hedging and portfolio theory.

Prerequisites: MATH/STAT 4344

SWEN Software Engineering

SWEN 3314 Interface Engineering

Credit: 3 | Lecture: 3 | Lab: 0

The user interface of a software product is a key factor which determines whether a software project succeeds or fails. This course assesses current UI design issues and explores innovative approaches to UI design in terms of cognitive engineering, human perception, attention and language. The intent is to develop new design methodologies, experimenting with new hardware devices, prototyping new software systems, exploring new paradigms for interaction and developing models and theories of interaction.

Prerequisites: CSCI 2315

SWEN 3320 Engineering Multimedia Software

Credit: 3 | Lecture: 3

Course examines object-oriented design and development of multimedia software. At a high level, the course examines the physics, biology and psychology of visual and auditory perception and the implications of these processes for the characterization of multimedia software. At an intermediate level, it discusses the use of various patterns in the design of multimedia software. At a lower level, it discusses different ways of adding multimedia functionality to applications with visual and auditory examples (such as image processing, vector graphics, video, animation, audio processing and musical scores).

Prerequisites: CSCI 1370 or CSCI 1471

SWEN 3340 Principles of Engineering Software

Credit: 3 | Lecture: 3

Study of software design models and as well as implementation techniques. Design patterns, frameworks, architecture design and component-based design. Designing for qualities such as performance, safety, security, reusability, reliability, etc. is covered as well as principles of OO design and OO analysis using UML (Unified Modeling Language). Introduction to topics of aspect oriented design, model-driven architectures and service-oriented architectures.

Prerequisites: SWEN 3350 or CSCI 2315

SWEN 3350 Data Structures for Software Engineering

Credit: 3 | Lecture: 3

This course will study the design and implementation issues surrounding the common data structures including arrays, linked lists, queues and stacks; abstract data types, binary trees, binary search trees, heaps, hashing techniques, recursion, as well as the implementation of searching and sorting algorithms.

Prerequisites: CSCI 1320 or CSCI 1370 or equivalent

SWEN 4195 Cooperative Education Work Term

Credit: 1 | Lecture: 1

Educational paid work assignment by a student in the field of career interest and course of study. A technical report will be required at the end of the semester (Specific requirements are noted in the Cooperative Education Catalog description.)

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

SWEN 4314 Interface Engineering**Credit: 3 | Lecture: 3**

The user interface of a software product is a key factor which determines whether a software project succeeds or fails. This course assesses current UI design issues and explores innovative approaches to UI design in terms of cognitive engineering, human perception, attention and language. The intent is to develop new design methodologies, experimenting with new hardware devices, prototyping new software systems, exploring new paradigms for interaction and developing models and theories of interaction.

Prerequisites: CSCI 2315.

SWEN 4317 Introduction to Game Design and Development**Credit: 3 | Lecture: 3**

Principles of game design and development of software for computer gaming.

Prerequisites: CSCI 2315

SWEN 4318 Virtual Worlds, Sims and Animation Scripting**Credit: 3 | Lecture: 3**

This is a project-based course that explores the design and development of Virtual Worlds and Sims using 3-D graphic software and animation scripting. Development work will include oral presentations, peer reviews and project documentation. Students will need their own laptop and may be required to purchase special software.

Prerequisites: CSCI 2315 and proficiency in programming.

SWEN 4320 Introduction to Software Process and Project Management**Credit: 3 | Lecture: 3**

Introduction to Software Process Models, process modeling and improvement; project planning, scheduling and project management.

Prerequisites: CSCI 2315.

SWEN 4330 Software Development in Emerging Domains**Credit: 3 | Lecture: 3**

Design and implementation of software in emerging new fields of interest. Topics will include software development in robotics and cell phone applications (apps).

Prerequisites: SWEN 3320, SWEN 3340.

SWEN 4342 Software Engineering**Credit: 3 | Lecture: 3**

Introduction to Software Engineering. Major phases of the software life cycle are introduced from requirements through maintenance.

Prerequisites: CSCI 2315 or equivalent

SWEN 4343 Current Tools and Innovative Technologies**Credit: 3 | Lecture: 3**

Review of current software engineering tools used in various lifecycle phases in traditional and novel domains. Survey of current and future trends in software engineering including evidence-based software engineering. Course will involve team work on small projects and oral presentation and project report writing.

Prerequisites: CSCI 2315 and one of (CSCI 1370 or CSCI 3311 or equivalent).

SWEN 4345 Introduction to Personal Software Process**Credit: 3 | Lecture: 3**

Personal evaluation and practice of the software design process, assessments, modeling and improving techniques.

Prerequisites: CSCI 1320 or CSCI 1470 or equivalent.

SWEN 4346 Software Testing**Credit: 3 | Lecture: 3 | Lab: 0**

Current and traditional testing techniques will be explored and exercised, including but not limited to black box testing, white box, equivalence partitioning, recurrence testing, validation testing, as well as validation and verification techniques. Integrated Laboratory instruction.

Prerequisites: CSCI 2315

SWEN 4365 Senior Project I**Credit: 3 | Lecture: 3**

Student must be in last year of study before graduation. Students will research a project topic in a chosen area. Students will be exposed to the process of research by writing a proposal for their senior project based on this research and preliminary and high-level designs submitted. Project proposals and design will go through a series of peer reviews with oral presentations and written reports required. Approved project proposals will be developed in Senior Project II.

Prerequisites: Approval of instructor.

SWEN 4366 Senior Project II**Credit: 3 | Lecture: 3**

Projects accepted and begun in Senior Project I are continued to completion in Senior Project II. Periodic presentation and peer reviews are required throughout the semester. A prototype implementation, a technical report and a public presentation are required at minimum at the end of semester.

Prerequisites: SWEN 4365 and approval of instructor.

SWEN 4391 Research Topics in SWEN**Credit: 3 | Lecture: 3**

Identified by specific title each time course is offered.

SWRK Social Work

SWRK 3301 Introduction to Social Work**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of the field of social work, including history, philosophy, values, roles, fields of practice, and settings for professional social work practice. Students are exposed to the Bio-Psycho-Social approach to practice. Students are required to complete a 40-hour volunteer service-learning placement.

SWRK 3304 Issues and Ethics in Social Work**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of professional values and behaviors specific to social work as set forth in NASW Code of Ethics and various other codes of ethics for social work professionals.

SWRK 3314 Diversity and Human Behavior in the Social Environment**Credit: 3 | Lecture: 3 | Lab: 0**

First of two courses on human behavior and the social environment. Overview of theories and knowledge related to human behavior, growth, and development throughout the life cycle with particular attention to human diversity.

Prerequisites: Pre- or Co-requisites: SWRK 3301 and SWRK 3304

SWRK 3317 Social Welfare Policy and Services**Credit: 3 | Lecture: 3 | Lab: 0**

Examination of the history and current patterns of provision of domestic and international social welfare policies and services as well as the effect of policy on social work practice. Overview of the role of social policy in helping or deterring people in maintaining or achieving optimal health and well-being and the impact of policy on client systems of all sizes is included.

Prerequisites: Pre- or Co-requisite: SWRK 3301 and SWRK 3304

SWRK 3324 Oppression, Diversity, and Social Justice**Credit: 3 | Lecture: 3 | Lab: 0**

Overview of theories and knowledge related to social, cultural, and systemic influences on human behavior with particular attention to social and economic justice and persons and groups most affected by oppression.

Prerequisites: Pre- or Co-requisite: SWRK 3301, and SWRK 3304

SWRK 4318 Social Work Practice I**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to theories, skills, values, and techniques for social work assessment, intervention, and practice evaluation with individuals with particular attention to human diversity and multicultural responsiveness. Only available to students admitted to the BSW program or students who have declared a minor in Social Work.

Prerequisites: SWRK 3301, SWRK 3304, SWRK 3314, and SWRK 3324; all with a "C" or better. Preferably completion of Overview Requirements (Psychology, Sociology, and/or Anthropology).

SWRK 4319 Social Welfare Policy Analysis**Credit: 3 | Lecture: 0 | Lab: 0**

Examination of social welfare policy perspectives, models of policy analysis, and contemporary social service/welfare policies. Special emphasis is placed on the skills of policy analysis as a means to achieving social and economic justice for oppressed groups within the context of historical and contemporary factors that shape policy. Only available to students admitted to the BSW program.

Prerequisites: SWRK 4317 with a "C" or better.

SWRK 4328 Social Work Practice II**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to theories, skills, values, and techniques for social work assessment, intervention, and practice evaluation with groups and families with particular attention to human diversity and multicultural responsiveness. Only available to students admitted to the BSW program.

Prerequisites: SWRK 4318 with a "C" or better.

SWRK 4338 Social Work Practice III**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to theories, skills, values, and techniques for social work assessment, intervention, planned change, and practice evaluation with communities and organizations. Only available to students admitted to the BSW program.

Prerequisites: SWRK 4318 with a "C" or better.

SWRK 4363 Experimental Methods and Statistics**Credit: 3 | Lecture: 3 | Lab: 0**

This course will introduce you to the procedures for conducting experimental research. We will discuss the experimental method and the appropriate statistical procedures for analyzing experimental data.

SWRK 4370 Nonexperimental Methods and Statistics**Credit: 3 | Lecture: 3 | Lab: 0**

This course will introduce you to the procedures for conducting nonexperimental, correlational and qualitative research. We will discuss nonexperimental methods and the appropriate procedures for analyzing nonexperimental data.

SWRK 4389 Independent Study in Social Work**Credit: 3 | Lecture: 0 | Lab: 0**

Permission of instructor required.

SWRK 4391 Selected Topics in Social Work**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

SWRK 4619 Social Work Internship I**Credit: 6**

First of two consecutive 240-hour generalist social work practice field placements. Requires participation in the Integrative Seminar. Students must have applied for and been accepted into a field placement with the Social Work program in order to register for this course.

Prerequisites: All other coursework must be completed with a "C" or better. Must have approval of the BSW Program and Field Director. Students may be concurrently enrolled in SWRK 4319 and/or Interdisciplinary Overviews. Any variations require prior approval of the Director of Field Education.

SWRK 4629 Social Work Internship II**Credit: 6 | Lecture: 0 | Lab: 0**

Second of two consecutive 240-hour generalist social work practice field placements.

Prerequisites: All other coursework must be completed. Must have approval of BSW faculty.

TCED Teacher Education

TCED 1101 Inquiry Approaches to Teaching Mathematics and Science Step I**Credit: 1 | Lecture: 1 | Lab: 0**

Introduction to mathematics and science teaching as a career. Discussions include standards-based lesson design and various teaching and behavior management strategies. Fieldwork consists of planning and teaching three inquiry-based lessons to students in grades three to five in local elementary schools. Every semester. Field component required.

TCED 1102 Inquiry Based Lesson Design in Mathematics and Science Step II**Credit: 1 | Lecture: 1 | Lab: 0**

Topics may include routes to teacher certification in mathematics and science teaching; various teaching methods that are designed to meet instructional goals; and learner outcomes. Students develop and teach three inquiry-based lessons in their field in a middle school, and participate in peer coaching. Every semester. Field component.

Prerequisites: TCED 1101 with a grade of at least C or consent of UHCLTeach Co-Director.

TCED 1301 Exploring Teaching as a Profession**Credit: 3 | Lecture: 3 | Lab: 0**

This course provides an introduction to the teaching profession and course content is aligned to the State Board for Educator Certification Pedagogy and Professional Responsibilities Standards. Field experiences required.

TCED 1306 Relational Aspects of Learning**Credit: 3 | Lecture: 3 | Lab: 0**

The social interaction and relational aspects of learning are explored in this course. Various interactional styles and supportive surveys are presented. Discussions are conducted regarding how these aspects of the affective domain of learning impact learner progress in the current public educational system. Observations of teachers interacting with learners in the school are included as reflection points of course papers. Field experience is required.

TCED 2301 Knowing and Learning**Credit: 3 | Lecture: 3 | Lab: 0**

Psychological foundations of learning; problem solving in mathematics and science education utilizing technology; principles of expertise and novice understanding of subject matter; implications of high stakes testing; and foundations of formative and summative assessment. Fall and spring semesters. No credit toward Education degree.

Prerequisites: Admission to the UHCLTeach program; university, STEM and major department grade point average of at least 2.5; TCED 1102 with a grade of at least C or consent of UHCLTeach Co-Director.

TCED 2302 Questioning Strategies to Promote Learning**Credit: 3 | Lecture: 3 | Lab: 0**

Various types of questions and the purpose of different questioning strategies are present in the course. Assignments that demonstrate application of questioning strategies through simulations with peers are utilized. In-class discussions on the effectiveness of various questioning strategies will be conducted, as well as, individual research on identified topics related to Bloom's Taxonomy.

TCED 2303 Classroom Interactions**Credit: 3 | Lecture: 3 | Lab: 0**

Principles of delivering effective instruction in various formats (lecture, lab, cooperative settings, examination of diversity including gender, class, race, exceptionalities, and culture in mathematics and science education; overview of policy related to mathematics and science education. Fall and Spring semesters. Field component. No credit toward Education degree.

Prerequisites: Admission to the UHCLTeach program; university, UHCLTeach, and major department grade point averages of at least 2.5; TCED 2301 with a grade of at least C or consent of UHCLTeach Co-Director. May not be used for graduate credit.

TCED 3300 Perspectives on Science and Math**Credit: 3 | Lecture: 3 | Lab: 0**

Introduction to the historical, social and philosophical implications of mathematics and science through investigations of pivotal experiments and findings. Fall and spring semesters. No credit toward Education degree.

Prerequisites: Admission to the UHCLTeach program; university, TCED, and major department grade point averages of at least 2.5; ENGL 1020 and completion of all 1000-level major courses with a grade of at least C; TCED 2302, with a grade of at least C or consent of UHCLTeach Co-Director.

TCED 3301 Research Methods in Science**Credit: 3 | Lecture: 3 | Lab: 0**

Recent developments and research methods in science. Fall and spring semesters. For UHCLTeach students only; no credit toward Education degree.

Prerequisites: Admission to the UHCLTeach program; university, TCED, and major department grade point averages of at least 2.5, an approved General Education statistics course and completion of all 1000-level major courses with a grade of at least C; TCED 2302 with a grade of at least C or consent of Co-Director.

TCED 3302 Instructional Practices in Education**Credit: 3 | Lecture: 3 | Lab: 0**

This course presents an overview of instructional practices used in public education. Observations of lessons taught by veteran teachers in the schools are included to build conceptual and experiential knowledge of common pedagogy. Critical examination of effectiveness of instructional practices is explored through discussion and assignments. Field experience required.

TCED 3304 Social Justice and Critical Issues in Education**Credit: 3 | Lecture: 3 | Lab: 0**

Coverage of social issues that currently exist in public schools will be presented and discussed. Socratic discussion circles will serve as one format for exploring issues. Critical examination of potential unexamined biases within learners' own world views are central to course coverage. Reflection in positional papers serve as main assignments.

TCED 4079 Post-Degree Internship in Teaching
Credit: 0 | Lecture: 0 | Lab: 0

This internship is restricted to members of UHCL's Alternative Certification Program. Field experiences required in a public school setting.

Prerequisites: TCED 4678 and TCED 4679 and approval of the associate dean.

TCED 4100 Core Subjects Teacher Seminar**Credit: 1 | Lecture: 1 | Lab: 0**

This course is designed to assist EC-6 and 4-8 candidates seeking core subjects certifications to understand the state and federal rules and standards for their chosen fields. Completion of the course is dependent upon candidates meeting syllabus requirements.

TCED 4102 Secondary (4-8 and 7-12) Content Teacher Seminar**Credit: 1 | Lecture: 1 | Lab: 0**

This course is designed to assist 4-8 and 7-12 candidates seeking content-specific certifications to understand the state and federal rules and standards for their chosen fields. Completion of the course is dependent upon candidate meeting syllabus requirements.

TCED 4300 Project Based Instruction**Credit: 3 | Lecture: 3 | Lab: 0**

Foundations of project-based, case-based, and problem-based learning environments; principles of project-based curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms. Spring and Fall semesters. Field component. No credit toward Education degree. *Prerequisites: Admission to UHCLTeach program; university, UHCLTeach, and major department grade point averages of at least 2.5; TCED 3301 with a grade of at least C or consent of UHCLTeach Co-Director. Not for graduate credit.*

TCED 4302 Inquiry Processes and Problem Solving Skills in Education**Credit: 3 | Lecture: 3 | Lab: 0**

Various inquiry thinking processes and problem solving skills are explored through actual application exercises in class. Different levels of cognitive development are presented as foundational information that impacts learner readiness for certain thinking processes. Individual research on an inquiry process or problem skill is required.

TCED 4303 Creating Positive Learning Environments in EC-6**Credit: 3 | Lecture: 3 | Lab: 0**

Theories and strategies for guiding young children's behavior and for effectively managing EC-6 classroom environments. Focus will be on approaches that promote autonomy in children.

TCED 4304 Creating Positive Learning Environments in 4-8**Credit: 3 | Lecture: 3 | Lab: 0**

Theories and strategies for guiding young adolescents' behavior and for effectively managing middle school classroom environments. The class focus will be on understanding the major concepts, principles, theories, and research underlying the philosophical foundations and organizational structure of developmentally appropriate middle-level programs and schools.

TCED 4306 Creating Positive Learning Environments in 7-12**Credit: 3 | Lecture: 3 | Lab: 0**

Theories and strategies for guiding adolescent learners' behavior and for effectively managing high school classroom environments. Focus will be on approaches that promote autonomy in adolescent learners.

TCED 4308 Assessments and Testing in Schools**Credit: 3 | Lecture: 3 | Lab: 0**

Different types of formative and summative assessments currently used in public education and covered in the course. Additionally, an overview of the types of tests used in local school districts and how they are utilized by educators to measure learner progress is presented and discussed. Mock tests and assessments will provide experiential knowledge of the purpose and impacts of diverse testing designs.

TCED 4321 Social Studies Methods for EC-6**Credit: 3 | Lecture: 3 | Lab: 0**

Curriculum planning, instructional activities and assessment techniques for developing social studies knowledge, citizenship and critical thinking skills; emphasis on sound practice and research-based strategies for teaching social studies for EC-6 students. Field experiences required.

Prerequisites: Admission to the Teacher Education Program and successful completion of TCED 4303.

TCED 4322 Science Methods for EC-6**Credit: 3 | Lecture: 3 | Lab: 0**

Development of science concepts in EC-6 instruction. An emphasis on curriculum materials and the process approach as a science teaching method. Field experiences required.

Prerequisites: Admission to the Teacher Education Program and successful completion of TCED 4303.

TCED 4323 Mathematics Methods for EC-6**Credit: 3 | Lecture: 3 | Lab: 0**

Methods of developing students' understanding of mathematics; emphasis on problem solving with manipulative and curriculum materials appropriate for use with EC-6 students. Field experiences required.

Prerequisites: MATH 3302 and admission to the Teacher Education Program and successful completion of TCED 4303.

TCED 4331 Social Studies Methods for Grades 4-8**Credit: 3 | Lecture: 3 | Lab: 0**

Curriculum planning, instructional activities and assessment techniques for developing social studies knowledge, citizenship and critical thinking skills; emphasis on best practice and research-based strategies for teaching social studies to students in grades 4-8. Field experiences required.

Prerequisites: Admission to Teacher Education Program and successful completion of TCED 4304.

TCED 4332 Science Methods for Grades 4-8**Credit: 3 | Lecture: 3 | Lab: 0**

Development of science concepts and teaching strategies for grades 4-8. Emphasis on the inquiry approach to teaching science consistent with concepts of cognitive development. Field experiences required.

Prerequisites: Admission to Teacher Education Program and successful completion of TCED 4304.

TCED 4333 Mathematics Methods for Grades 4-8**Credit: 3 | Lecture: 3 | Lab: 0**

Methods of developing students' understanding of mathematics. Emphasis on problem solving with manipulative and curriculum materials appropriate for use with students in grades 4-8. Algebraic and graphing technology will be addressed. Field experiences required.

Prerequisites: MATH 1315, admission to Teacher Education Program and successful completion of TCED 4304.

TCED 4361 Methods in Secondary Social Studies
Credit: 3 | Lecture: 3 | Lab: 0

Strategies for developing social studies activities; emphasis on instructional techniques, content disciplines, local community, values and controversial issues and national trends. Field experiences required.

Prerequisites: Admission to the Teacher Education Program and successful completion of TCED 4306.

TCED 4362 Methods in Secondary Science**Credit: 3 | Lecture: 3 | Lab: 0**

Strategies for teaching secondary science; emphasis on laboratory management and safety, development of scientific reasoning and issues and trends in secondary science education. Field experiences required.

Prerequisites: Admission to the Teacher Education Program and successful completion of TCED 4306.

TCED 4363 Methods in Secondary Mathematics**Credit: 3 | Lecture: 3 | Lab: 0**

Strategies for teaching secondary mathematics; emphasis on instructional techniques appropriate for secondary mathematics, development of problem-solving skills and issues and trends in secondary mathematics education. Field experiences required.

Prerequisites: MATH 3304 or equivalent, admission to the Teacher Education Program and successful completion of TCED 4306.

TCED 4364 Methods in Technology**Credit: 3 | Lecture: 3 | Lab: 0**

Strategies for teaching technology applications; emphasis on instructional techniques, development of problem-solving skills and issues and trends in technology applications. Field experiences required.

Prerequisites: Admission to Teacher Education Program, successful completion of or concurrent enrollment in TCED 4306.

TCED 4377 THECB Aide Project**Credit: 3 | Lecture: 3 | Lab: 0**

Supervised field project under the joint supervision of a public school district and the UHCL Center for Professional Development of Teachers. Student must be enrolled in the Texas Higher Education Coordinating Board (THECB) Aide Project. Field experiences required in a public school setting.

Prerequisites: Admission to Teacher Education Program and approval of the associate dean.

TCED 4378 Pre-Service Internship I**Credit: 3 | Lecture: 3 | Lab: 0**

Field experiences required in a public school setting. TCED 4100 or TCED 4102 must be taken prior to consideration for Internship I (TCED 4378).

Prerequisites: Approval of associate dean and completion of WRIT 3307 with a grade of C+ or better.

TCED 4389 Independent Study in Teacher Education**Credit: 3 | Lecture: 3 | Lab: 0**

Prerequisites: Approval of instructor and associate dean.

TCED 4391 Selected Topics in Teacher Education**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by title each time course is offered.

TCED 4678 Post-Degree Internship I**Credit: 6 | Lecture: 6 | Lab: 0**

Post-baccalaureate internship with joint supervision by the school district where the intern is employed and the UHCL Center for Professional Development of Teachers. Field experiences required in a public school setting.

Prerequisites: Approval of associate dean.

TCED 4679 Post-Degree Internship II/Student Teaching**Credit: 6 | Lecture: 6 | Lab: 0**

Post-baccalaureate internship with joint supervision by the school district where the intern is employed and the UHCL Center for Professional Development of Teachers. Field experiences required in a public school setting.

Prerequisites: Approval of associate dean.

TCED 4700 Apprentice Teaching and Seminar
Credit: 7 | Lecture: 3 | Lab: 0

Apprentice Teaching: Closely supervised fieldwork in cooperating school. Experience includes carrying out the duties of a secondary teacher. Twenty hours of fieldwork a week for one semester. Offered on a pass/fail basis only. Every semester. No credit toward Education degree. Field component. Student Teaching Seminar restricted to students in the UHCLTeach program who have earned a passing score on the preliminary portfolio. Discussions include student teaching experiences and contemporary critical issues in education. One lecture hour a week. Fall and Spring semesters. For UHCLTeach students only; not open to Education students. Prerequisite: Admission to UHCLTeach program, a university grade point average of at least 2.50, all UHCLTeach courses successfully completed, 90% of content exam courses, application for and admission to UHCLTeach Apprentice Teaching according to UHCLTeach guidelines, passing and score submission to UHCLTeach of all relevant state certification examinations, approval of preliminary portfolio by UHCLTeach, consent of UHCLTeach adviser. May not be used for graduate credit.

Prerequisites: Successful completion of Checkpoint 3 and all but at most two content courses successfully completed and a passing score on preliminary portfolio.

TCED 4978 Pre-Service Internship II/Clinical Teaching**Credit: 9 | Lecture: 9 | Lab: 0**

Internship II/Clinical teaching will provide Interns with experiences that will assist in the development and application of knowledge, skills and dispositions to continue their growth and development as new teachers. Interns will participate in ALL aspects of the professional role of teachers, including, but not limited to: professional committees and meetings, monitoring duty (cafeteria, bus lines, etc.), parent and student conferencing, extracurricular activities with prior approval of the District Supervisor, and other assigned professional duties. During the Internship II/Clinical teaching semester, the interns/clinical teachers will adhere to the instructional day of the PDS site Monday through Friday.

Prerequisites: TCED 4378 and approval of the associate dean.

WGST Women's and Gender Studies

WGST 1301 Gender Matters: Introduction to Women's and Gender Studies**Credit: 3 | Lecture: 3 | Lab: 0**

A general introduction to the study of women and gender across academic disciplines, appropriate as a first course for any student interested in the study of gender within their major. This course considers fundamental questions, such as: What is a woman? What is gender? What is sex? How does culture construct gender and gender difference? How do gender, race, class, ethnicity, and sexuality intersect?

WGST 3341 Women in American History**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of diversity within the historical gender-specific experience of women's participation in and contributions to the history of the United States (Cross-listed with HIST 3341.)

WGST 4189 Independent Study in Women's and Gender Studies**Credit: 1 | Lecture: 0 | Lab: 0**

Permission of instructor required. May be taken for 1 hour of credit. For 3 hours of Independent Study credit, students should enroll in WGST 4389.

WGST 4308 Perspectives in Women's and Gender Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Interdisciplinary topics course in women's and gender studies, topics to be determined by instructor at time of offering. Introduces students to analytical concepts and critical approaches for understanding the lives of women and the construction of gender within larger social, political, and cultural structures. Topics vary; may be repeated for credit with permission of instructor.

WGST 4312 Women of Color**Credit: 3 | Lecture: 3 | Lab: 0**

Focuses on diverse experiences of women of color, using race, class, and sexuality as analytical tools to explore these experiences. Topics vary; may be repeated for credit with permission of instructor.

WGST 4314 Latina Social Movements in the Americas**Credit: 3 | Lecture: 3 | Lab: 0**

This course invites students to use the historical record to imagine and analyze gender and the roles of women in Latin America.

WGST 4316 Women and the Law**Credit: 3 | Lecture: 3 | Lab: 0**

Evolution of women's legal rights in the United States. Examination of contemporary issues in context of human rights law. Legal status of women in economic, political, and judicial sectors. (Cross-listed with SOCI 4316.)

WGST 4329 History of Feminism**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of the development of those reform movements and individuals who shaped the growth of feminism in the 19th- and 20th-century U.S. and the world. May focus on a particular aspect of historical feminism. (Cross-listed with HIST 4329.)

WGST 4334 Psychology of Women**Credit: 3 | Lecture: 3 | Lab: 0**

Development of sex differences and sex roles; modern viewpoints on gender-appropriate behavior.

WGST 4335 Women's Health and Sexuality**Credit: 3 | Lecture: 3 | Lab: 0**

Survey of current issues in women's health and sexuality using a life-span perspective. (Cross-listed with SOCI 4367.)

WGST 4337 Violence Against Women**Credit: 3 | Lecture: 3 | Lab: 0**

Global perspectives of violence against women by men. Topics include rape, sexual abuse, incest, female genital mutilation, battering, sexual slavery, and sexual harassment. (Cross-listed with PSYC 4337.)

WGST 4341 Women in Society**Credit: 3 | Lecture: 3 | Lab: 0**

Cross-cultural study of the environmental, biological, and cultural factors in the division of labor and assignment of roles, male and female. (Cross-listed with ANTH 4341 and SOCI 4341.)

WGST 4348 Development of Gender and Racial Identity**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration of how children and adolescents come to understand gender and race, and with their changing understanding how they come to incorporate gender and race into their self-concept and use them to define/categorize others.

WGST 4360 Women in Literature**Credit: 3 | Lecture: 3 | Lab: 0**

Heroines from *Eve* to *Beloved*; literature constructs the female; emphasis on 19th- and 20th-century works.

WGST 4370 Gender and Identity in the Visual Arts**Credit: 3 | Lecture: 3 | Lab: 0**

History, theory, and criticism in relation to issues of gender, sexuality, and identity in the visual arts.

WGST 4372 Seminar in Women's and Gender Studies**Credit: 3 | Lecture: 3 | Lab: 0**

An advanced course in Women's and Gender Studies, designed to acquaint students with contemporary issues in scholarship on women's and gender studies across the disciplines. Topics may include feminist theories, methodologies, ethics, and philosophies. Prerequisites: Any previous course with Women's and Gender Studies content.

WGST 4389 Independent Study in Women's and Gender Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Permission of instructor required. May be taken for 3 hours of credit. For 1 hour of Independent Study credit, students should enroll in WGST 4189.

WGST 4391 Selected Topics in Women's and Gender Studies**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

WRIT Writing

WRIT 1301 Composition I**Credit: 3 | Lecture: 3 | Lab: 0**

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.

WRIT 1302 Composition II**Credit: 3 | Lecture: 3 | Lab: 0**

Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods, critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions.

Prerequisites: WRIT 1301 or equivalent.

WRIT 3304 Writing for Education**Credit: 3 | Lecture: 3 | Lab: 0**

Frequent writing practice with the study of composition theories and strategies for writing as a professional educator. Introduces prospective teachers to methods for evaluating student writing and designing effective writing assignments and instructional materials.

Prerequisites: WRIT 1301 and WRIT 1302 with a "C-" or better and junior-level standing.

WRIT 3305 Writing for the Humanities**Credit: 3 | Lecture: 3 | Lab: 0**

Concentrated instruction in the research methods and writing conventions widely used in the humanities, liberal arts, and some social sciences. Careful understanding and interpretation of primary source materials and critical reading of secondary source materials. Strong focus on research.

Prerequisites: WRIT 1301 and WRIT 1302 with a "C-" or better and junior level standing.

WRIT 3306 Writing for the Social Sciences**Credit: 3 | Lecture: 3 | Lab: 0**

Designed specifically for students in psychology, social work, criminal justice, anthropology, fitness and human performance, women's studies, and other Social Sciences majors. Covers genres students can expect to encounter in both academic and professional writing situations including paraphrases, summaries, annotated bibliographies, and literature reviews.

Prerequisites: WRIT 1301 and WRIT 1302 with a "C-" or better and junior level standing.

WRIT 3307 Advanced Writing**Credit: 3 | Lecture: 3 | Lab: 0**

Explores invention of ideas to strategies appropriate to various kinds of writing. Models of organization, analysis of style, role and importance of mechanics and syntax

Prerequisites: Completion of WRIT 1301 and WRIT 1302 with a grade of C- or better and junior-level standing.

WRIT 3312 Written Communications in Business**Credit: 3 | Lecture: 3 | Lab: 0**

Theory and practices of business communications: preparation of effective letters, policy statements, procedures, reports, and related documents.

Prerequisites: Completion of WRIT 1301 and WRIT 1302 with a grade of C- or better and junior-level standing.

WRIT 3315 Advanced Technical Writing**Credit: 3 | Lecture: 3 | Lab: 0**

Advanced approaches to the writing of technical documents for professional audiences: correspondence, proposal reports, manuals, and descriptions.

Prerequisites: Completion of WRIT 1301 and WRIT 1302 with a grade of C- or better and junior-level standing.

WRIT 4310 Writing for the Public: Developing Non-Profit Communication Strategies**Credit: 3 | Lecture: 3 | Lab: 0**

Exploration and implementation of the theories and practices of writing and rhetoric that serve the public interest. Focuses on the written and digital forms of communication important to non-profit organizations.

Prerequisites: WRIT 1301 and WRIT 1302 with a C- or better and in junior-level standing.

WRIT 4311 Grant and Proposal Writing**Credit: 3 | Lecture: 3 | Lab: 0**

Project-based, service-learning course covering the complete process of grant proposal development: identification of an achievable and fundable project, research and assessment of viable funding sources, proposal writing, budget development, preparation of a full proposal package for submission, and post-award or rejection follow-up with funders

Prerequisites: WRIT 1301 and WRIT 1302 with a C or better and in junior standing.

WRIT 4312 The Rhetoric of Popular Culture**Credit: 3 | Lecture: 3 | Lab: 0**

Combines rhetorical analysis with critical studies including Marxist, feminist, visual, and media-centered criticism and queer theory. Through these lenses, students will analyze movies, television, music, public speeches, advertising, and other media.

Prerequisites: WRIT 1301 and WRIT 1302 with a C or better and in junior standing.

WRIT 4313 Graffiti, Texting, and Networked Politics: The Sociolinguistics of Writing**Credit: 3 | Lecture: 3 | Lab: 0**

The study of writing as a sociolinguistic object. Examines a new sociolinguistics of globalization with a focus on mobility, multilingualism, and superdiversity.

Prerequisites: WRIT 1301 and WRIT 1302 with a C or better and in junior standing.

WRIT 4314 Collaborative Writing Pedagogy**Credit: 3 | Lecture: 3 | Lab: 0**

Introduces students to the theories and practices that inform collaborative pedagogy. Students will learn theories of collaboration, practice methods for one-on-one and small group conferencing, learn research skills, understand formatting styles for different academic disciplines, and practice the interpersonal skills necessary for working with a diverse student population.

WRIT 4391 Selected Topics in Writing**Credit: 3 | Lecture: 3 | Lab: 0**

Identified by specific title each time course is offered. Topics vary; may be repeated for credit with permission of instructor.

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