



University
of Houston
Clear Lake

2010-2011

UHCL Graduate Catalog

Courses, Degree Requirements, Faculty and General Information



PUBLICATION INFORMATION

This catalog is published annually by the University of Houston-Clear Lake. The university reserves the right to make changes in course offerings, degree requirements, charges, regulations and procedures contained herein as educational and financial considerations require, subject to and consistent with established procedures and authorizations for making such changes. Students are responsible for knowing current regulations regardless of matriculation date. Interpretations or explanations contrary to the regulations in this publication are not binding upon the university.

UHCL is fully committed to providing equal educational and employment opportunities for all persons regardless of race, color, sex, age, religion, marital status, national origin, veterans' status, mental or physical disability and/or any other category against which discrimination is prohibited by state or federal law. Inquiries concerning laws and regulations governing affirmative action, sexual harassment or problems related to equal opportunity should be directed to the Director of Human Resources and Affirmative Action, Box 167.

The University of Houston System is a state-assisted system comprising four universities: University of Houston, UHCL, UH-Downtown and UH-Victoria.

UHCL is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone number 404-679-4501) to award bachelor's, master's and doctorate degrees.

University of Houston-Clear Lake Terminology

The University of Houston-Clear Lake began using a new student information system called PeopleSoft in 2001. PeopleSoft uses different terminology than is normally used in college curriculums.

The chart below will assist you in becoming familiar with the terminology.

Old Terminology	Current Terminology
Major	Plan
Concentration/Certification	Subplan
Level	Career
School/Level	Program

2010 – 2011 Graduate Catalog

VOLUME 37

PLEASE VISIT OUR WEB SITE AT:

<http://www.uhcl.edu>

This publication is available on the internet at:

<http://www.uhcl.edu/catalog>

or by request to the
Office of Admissions

UNIVERSITY OF HOUSTON-CLEAR LAKE

2700 Bay Area Boulevard

Houston, Texas 77058-1098

Telephone: 281-283-2500

Important dates and Quick Reference Guide
are available at:

<http://www.uhcl.edu/records>

DIRECTORY

	Office	*Phone
Academic Records	S1109	283-2525
Admissions	S1101	283-2500
Alumni Relations	B1604	283-2021
Bookstore	B1206	283-2180
Business, Dean	B2239	283-3100
Academic Advising	B2111	283-3110
Administration	B2239	283-3100
Career Services	S3109	283-2590
Cashier and Collections	S1103	283-2170
Communications	B2519	283-2015
Community Relations	B1604	283-2021
Counseling Services	S3103	283-2580
Dean of Students	S1201	283-2567
Development	B1604	283-2021
Distance and Off-Campus Education	B1406	283-3031
Education, Dean	B1237	283-3501
Academic Advising	B1231	283-3615
Center for Educational Programs	A190	283-3530
Center for Professional Development of Teachers	B1231	283-3612
Teacher and Professional Certification	B1231	283-3618
Health and Disability Services	S1301	283-2626
Human Sciences and Humanities, Dean	B1529	283-3300
Academic Affairs	B1539	283-3400
Academic Advising	B1539	283-3333
Administration and Finance	B1617	283-3350
Intercultural and International Student Services	S1203	283-2575
International Initiatives	B1402	283-2531
Library	B2402	283-3900
Office of Online Programs	B1402	283-3056
Parking Permits	B1636	283-2222
Police	B1636	283-2222
Registrar	S1109	283-2525
Science and Computer Engineering, Dean	B3611	283-3703
Academic Affairs	B3611	283-3711
Academic Advising	B3611	283-3700
Student Assistance Center	S1102	283-2722
Student Financial Aid	S1105	283-2480
Student Information and Assistance (Bayou Bldg).	B1632	283-2614
Student Life	S1204	283-2560
Student Publications	B1239	283-2570
Student Services	B2525	283-3025
Support Center	B2300	283-2828
Computing Information	B2300	283-2828
Online Course Support	B2300	283-2828
Media Services	B2300	283-2828
Telephone Registration	S1101	212-8425

***Area Code for all numbers is 281.**

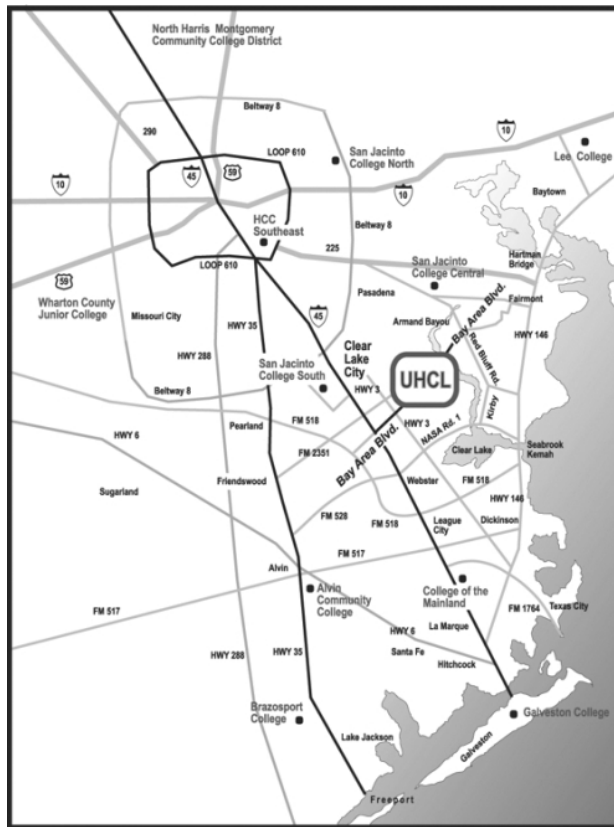
A = Arbor Building B = Bayou Building D = Delta Building S = Student Services and Classroom Building

Requests for information should be directed to the offices or persons above.

The university's address for all inquiries is:

2700 Bay Area Boulevard, Houston, Texas 77058-1098

Main Operator Phone: 281-283-7600



DIRECTIONS

From North on I-45: Travel south on I-45 to the Bay Area Blvd. exit. Continue east on Bay Area Blvd. Follow the signs four miles to UHCL. Enter Entrance 1 and follow the signs to the Bayou Building. Park in visitor parking, Lot D.

From South on I-45: Travel north on I-45. Exit at Bay Area Blvd. Right on Bay Area Blvd. four miles to UHCL. Enter Entrance 1 and follow the signs to the Bayou Building. Park in visitor parking, Lot D.

From Highway 225: Travel to I-45 and follow the directions to "From North on I-45."

From Highway 146: Travel south on Highway 146 to Fairmont Pkwy. Right on Fairmont Pkwy. to Bay Area Blvd. Left on Bay Area Blvd. to UHCL. Left at Brook Forest Entrance 2. Follow signs to visitor parking, Lot D.

From Highway 6 South: Travel northwest to Hwy. 35 Bypass. Go north on Hwy. 35 Bypass to FM 528. Right on FM 528 to I-45. Follow the directions to "From South on I-45."

From Highway 6 North: Travel southeast to Hwy. 35. Go north on Hwy. 35 to FM 528. Right on FM 528 to I-45. Follow the directions to "From South on I-45."

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The coffee lounge located in the Students Services and Classroom Building is a favorite meeting place for students and faculty before and after class.





At UHCL, students enjoy the outdoors while studying for their next class. UHCL's beautiful campus offers open spaces for students to relax between classes or just to take a few minutes to commune with nature.



THE UNIVERSITY

- Overview
- University Services

OVERVIEW

University of Houston-Clear Lake is an upper-level educational institution with a distinct identity, whose primary role is to provide fair and equitable learning opportunities to undergraduate and graduate students. 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 computer engineering. The university emphasizes high standards for teaching and learning in its bachelor's, master's and doctoral degree programs, as well as in its professional plans and collaboration in doctoral plans. All offerings are designed to develop creative, quantitative, communication and critical thinking skills of students.

The university's faculty, staff and administrators are committed to providing a humane, responsive and intellectually stimulating environment for productive learning and working. UHCL emphasizes (a) learning through teaching, research, scholarship and professional and community service; (b) the advancement of knowledge; (c) delivery of educational opportunities through new instructional technologies and through distance learning; (d) a commitment to high academic standards; (e) sensitivity to the needs of the students and communities served by the institution; and (f) above all, integrity in all institutional functions.

A METROPOLITAN UNIVERSITY

Located adjacent to the National Aeronautics and Space Administration Johnson Space Center, UHCL is situated in the heart of Clear Lake's high-technology 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 is committed to enhancing the educational, economic, cultural, scientific, business and professional environment of the region. Because a strong university is essential to the success of the area's industries, UHCL is dedicated to developing and strengthening programs supporting the region's various commercial, engineering, human services and trade sectors, especially in the computing, medical, petrochemical and space industries.

Academic theories are applied and research is conducted through UHCL's centers, institutes, clinics and laboratories. These entities include:

- Art School for Children and Young Adults
- Center for Advanced Management Programs
- Center for Autism and Developmental Disabilities

- Center for Behavioral Neuroscience Research
- Center for Economic Development and Research
- Center for Educational Programs
- Center for Professional Development of Teachers
- Counseling Clinic
- Diagnostic Reading Clinic
- Environmental Institute of Houston
- Greater Houston Area Writing Project
- High Technologies Laboratory
- Human Performance Institute
- Learning Resources Review Center
- Mathematics Institute
- Psychological Services Clinic
- Research Center for Language and Culture
- Small Business Development Institute

LOOKING BACK: 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) calling 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, the largest of the university's five principal buildings. September 1974 marked the beginning of regularly scheduled classes on the UHCL campus under the leadership of UHCL's founding chancellor, Alfred R. Neumann. Opening day enrollment totaled 1,069 students and 60 professors comprised the charter faculty. Today, the university has approximately 7,600 students and more than 600 full-time and adjunct faculty.

REACHING OUT: CREATION OF UHCL PEARLAND CAMPUS

In 2007, the Texas Higher Education Coordinating Board approved creation of UHCL Pearland Campus. 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. During spring 2009, construction began on a 30,659-square-foot building, with 22,616 square feet to house the university and the remaining 8,043 square feet for the Pearland Economic Development Corporation. UHCL Pearland Campus, located at 1200 Pearland Parkway, Pearland, Texas, 77581, features eight media-equipped classrooms, two teaching labs, a computer lab, a library and a variety of student resources. Fall 2010 marks the beginning of classes at the satellite campus, with degree offerings in disciplines such as accounting, business, criminology, education and psychology.

ACCREDITATIONS

UHCL is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's and doctoral degrees as listed in the General Program Requirements section of this catalog. The commission is located at 1866 Southern Lane, Decatur, Georgia 30033-4097. The phone number is 404-679-4501.

The School of Business maintains accreditation on its graduate and undergraduate business and accounting programs by The Association to Advance Collegiate Schools of Business (AACSB International), and on its graduate healthcare administration programs by the Commission on Accreditation of Healthcare Management Education (CAHME).

The School of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE), 2010 Massachusetts Ave. NW, Suite 500, Washington, D.C. 20036, phone 202-466-7496. This accreditation covers all of the institution's initial teacher preparation and advanced educator preparation programs. The School of Education is also accredited by the Texas State Board for Educator Certification.

The School of Human Sciences and Humanities' family therapy program is accredited by the Commission on Accreditation for Marriage and Family Therapy Education. The school psychology program is accredited by the National Association of School Psychologists (NASP). The Bachelor of Social Work is accredited by the Council on Social Work Education (CSWE).

The School of Science and Computer Engineering's undergraduate degree plan in computer engineering is accredited by the Engineering Commission of the Accreditation Board for Engineering and Technology (ABET) Inc. The undergraduate degree plans in computer science and computer information systems are accredited by the Computer Accreditation Commission of the ABET. The program in chemistry is accredited by the American Chemical Society (ACS).

The Office of Career and Counseling Services is accredited by the International Association of Counseling Services.

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 UHS Board of Regents and Chancellor Renu Khator. Administrative responsibility for UHCL is vested in its president, William A. Staples. UHCL's shared governance process includes the Faculty Senate, Professional and Administrative Staff Association, Support 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. Members of the UHCL Community Partners Council serve as business, education, government and non-profit organization advisers on current issues impacting the advancement of the university and as volunteers in helping UHCL acquire resources.

THE CAMPUS

UHCL's buildings, which comprise more than three-quarter million square feet of space, are surrounded by 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 and laboratories.

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, university police and the theater.

The Central Services Building is headquarters for building maintenance, grounds and custodial services, scheduling and space planning, vehicle maintenance, printing and graphic services and the animal care facility.

The Delta Building houses student computer laboratories and computing faculty offices.

The Student Services and Classroom Building accommodates five categories of functions including academic; enrollment; health, wellness and academic support; programming and general space. The one-stop Student Assistance Center provides enrollment, registration, fee payment, financial aid and scholarship services.

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, 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 tips 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, e-mail reference@uhcl.edu or online at www.uhcl.edu/library.

Visitors can receive help formulating effective search queries, becoming familiar with controlled vocabulary searching and identifying the best online resources out of a collection of more than 150 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 so that students may participate in a hands-on-learning environment. Students may also make appointments with librarians to explore more in-depth instruction on library research strategies in a comfortable one-on-one environment.

UHCL students, faculty and staff may also borrow books from UH and UH-Downtown quickly and easily through the shared catalog. The TexShare card, available upon request in Neumann Library, allows a UHCL student to go to any academic or public library in Texas and check out a book, which can then be returned to Neumann Library. 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 35 fixed computer workstations for student use.

The library occupies approximately 80,000 square feet in the Bayou Building and contains laptop-friendly study space, group study rooms and a soundproof quiet study room. The library contains more than 506,000 volumes, subscribes to more than 3000 print and electronic periodicals, and has approximately 1.8 million items in microform, as well as a collection of DVDs and audiobooks. A curriculum library for education students contains K-12 textbooks, classic children's literature and a review center for recent children's literature. Neumann Library also includes University Archives, which houses the NASA Johnson Space Center History Collection.

COMPUTING AND TELECOMMUNICATIONS

The UCT Support Center serves as the first point of contact for all computing and telecommunications needs. People 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, Room B2300, or contact the center by phone at 281-283-2828 or e-mail at supportcenter@uhcl.edu. Visit www.uhcl.edu/uct for details on available services, including documentation self-help guides, policies and "Today's News."

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

- E-mail accounts
- Various technology orientations and software training programs including student lab orientation and computer use training and faculty orientation for classroom technology
- 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 can be found at www.uhcl.edu/uct
- Specialized teaching labs including PC labs for students to work in teams, 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

- Web pages for the university, schools, programs, faculty and individual courses (www.uhcl.edu)
- Wireless access in all campus classroom buildings
- High-speed network for data, video and Internet access
- Up-to-date computing hardware and software including 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 (VPN)
- Strong commitment to software engineering and relational database technology
- Siemen's telecommunications system for voice communications, including phonemail and fax service for faculty and staff

WRITING CENTER

The Writing Center is an instructional facility where students, faculty and staff can work with trained tutors on their writing projects. Tutors collaborate with writers as they sort through ideas, analyze assignments and audiences, revise documents by clarifying ideas and structure, and learn stylistic and editing strategies. The Writing Center also offers online tutoring for currently registered students. For more information, contact the Writing Center at 281-283-2910, visit www.uhcl.edu/writingcenter, e-mail writingcenter@uhcl.edu, or simply drop by SSCB 2105.

UHCL ALUMNI ASSOCIATION

UHCL is committed to its alumni. The purpose of the Office of Alumni and Community Relations, and the alumni association as the volunteer leadership component, is to contact, engage, serve, empower and acknowledge alumni through programming, services, events and outreach.

All UHCL graduates and recipients of teacher's certificates are automatically members of the UHCL Alumni Association with no dues necessary. This means that UHCL graduates have access to the entire family of alumni, plus a host of great benefits. To learn more about the UHCL Alumni Association or to get involved, visit www.uhcl.edu/alumni or contact the Office of Alumni and Community Relations at 281-283-2021 or alumni@uhcl.edu.

UNIVERSITY POLICE

The University Police Department is responsible for law enforcement, security and emergency response at UHCL. 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.

The department is located in the Bayou Building, Suite B1636 and is operational 24 hours a day, seven days a week. Trained, professional police and communications

officers staff the department. Services provided by the university police include: issuance of all parking permits, lock shop services including the issuance of codes and keys, vehicle unlocks, vehicle jump-starts, airing deflated tires and safety escorts to your vehicle.

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 closing and other information, call the UHCL Hotline at 281-283-2221 or visit www.UHCLemergency.info. For a complete overview of the University Police Department and its services, visit www.uhcl.edu/police.



Distance Education programs are very attractive for students in Sugarland, Cinco Ranch and the Texas Medical Center.



NEW STUDENT ADMISSIONS

- General Information
- Admissions Policies and Procedures
- Graduate Admissions Process
- International Admissions Process
- Academic Advising

GENERAL INFORMATION

STATUS DESCRIPTIONS

Admission is defined as permission to enroll in courses for academic credit. Admission to the university does not guarantee admission to a specific major or academic program. Graduate applicants must have earned a bachelor's degree or higher and meet the university's admission requirements in order to enroll. Upon acceptance, students may enroll in degree-seeking programs, in other relevant course work as a non-degree-seeking student; or, they may pursue teacher certification while simultaneously completing graduate degrees. Some students, such as those admitted as Transients and those in certificate programs, can only enroll as non-degree-seeking. Students who would like to receive teacher certification without pursuing a graduate degree are also considered non-degree-seeking and should enroll as undergraduates in the post-baccalaureate status. For admission purposes, all students are categorized as "new" or "former". New and former students are defined as follows:

- New students - Students who have never enrolled or have not been enrolled at University of Houston-Clear Lake beyond the census date of any semester.
- Former students
Former UHCL graduate student interested in returning to the same program - Former graduate students who would like to return to their previous graduate program after three semesters of non-enrollment, must be readmitted. To qualify for readmission, these students must have left the university in good standing and should follow procedures outlined in the Readmission of Status Change Process section.

Former UHCL graduate students interested in returning, but to a different major - Former graduate students who are returning and would like to pursue a different graduate program should apply to that program by the posted deadline for new graduate students.

Former or current UHCL undergraduate students interested in enrolling a graduate degree program - Former undergraduate students who have earned a bachelor's degree or students who are eligible to graduate (see Applicants with Pending

Bachelor's Degrees) and are seeking admission to a graduate degree program must apply to that program by the posted deadline for new graduate students. These students are eligible for new student scholarships available to graduate students.

New and former students can enroll under the following classifications:

- Degree-seeking applicants - Students who are applying for admission to an academic degree program.
- Non-degree-seeking applicants - Students who are applying for admission for reasons other than the pursuit of a degree, (e.g. personal enrichment or job enhancement). 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. Credit earned in a non-degree status will not automatically be applicable to a specific academic degree program, and some courses are restricted to only degree-seeking students. Additionally, some academic departments limit the number of hours that can be taken in a non-degree-seeking status and applied to a Candidate Plan of Study (CPS). For specific policies regarding course availability and application procedures, please refer to the appropriate academic department's program section of this catalog.
- Transient students - Students who wish to enroll in a non-degree-seeking status at UHCL for only one semester, generally to transfer course work to another institution. Transient students must prove their eligibility by providing all documents required for their appropriate admission category prior to registration. Transients who wish to enroll in a second semester must obtain permission from the associate dean of their academic school of choice; and, they must reapply by submitting a new application and application fee to the Office of Admissions.

APPLICATION FEES

The current application fees are as follows:

Domestic applicants	\$35.00
Domestic doctoral applicants	\$95.00
International applicants	\$75.00
International doctoral applicants	\$135.00

New applicants are eligible to update their application within three semesters of their original application for admission. To update to a new semester, applicants should submit an *Application Update Form*. This form can be found on the Office of Admission's Web site. Application fees can be paid by credit card (MasterCard, VISA, American Express or Discover) at the time of online application or after the application submission. To submit the application fee online after applying, students must use their E-Services account or pay in person at the university Cashier's Office.

ADMISSION POLICIES AND PROCEDURES

TRANSCRIPTS, RECORDS AND TRANSFER WORK

Accredited Institutions

All transcripts submitted for admission purposes must be received from a regionally accredited institution. An acceptable accredited institution is a college or university that has earned accreditation from one of the following recognized regional accrediting commissions: New England Association of Colleges and Schools, Middle States Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Association of Colleges and Schools, Southern Association of Colleges and Schools or the Western Association of Colleges and Schools.

Proprietary, vocational-technical, bible and other specialized, single-purpose institutions that are not recognized by a regional accrediting agency are excluded. Credit earned prior to an institution receiving regional accreditation is excluded.

Documentation for Admission from US Institutions

All documents submitted to fulfill admission requirements must be official and from an institution awarded regional accreditation (see *Accredited Institutions*). Official transcripts must be mailed directly from the former institution(s) to the Office of Admissions. Hand-delivered transcripts will only be accepted as official if they have been printed within the past 60 days and are received in a sealed envelope from the issuing institution. Unofficial transcripts, student copies of transcripts, or transfer course work shown on transcripts will not be accepted as an official record of course work.

The Office of Admissions must receive all documents by the appropriate deadline (see *Deadlines*). If students knowingly withhold information or submit fraudulent information regarding enrollment at another collegiate institution, their application at University of Houston-Clear Lake will be considered invalid and the students may be administratively withdrawn from classes without a refund of fees paid.

Documentation for Admission from International Institutions

International students must provide the Office of Admissions with official transcripts, mark (grade) sheets and confirmation of degrees or diplomas for all academic studies attempted at other colleges/universities, prior to enrollment. All students should provide official transcripts and/or mark sheets in the original language and English translations describing all academic studies attempted and completed. This information must be received before the final evaluation can proceed. Transcripts should clearly indicate dates of attendance, subjects taken and marks (grades) earned. They should also reflect any degrees or diplomas awarded.

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

The university makes a reasonable determination of courses completed outside of the United States. However, if requested, students may be required to submit an independent evaluation of their course work. This evaluation must be performed by an approved accrediting agency to determine accurate course equivalencies. An evaluation of this type will occur at the student's expense. A list of acceptable agencies can be found on the Office of Admissions' Web site.

Repeated Transfer Courses

All attempted course work for credit will be counted in determining the transfer grade point average required for admission to a particular program or plan.

Records Retention and Release

Records from other institutions are kept on file for a period of five years. Former students who did not enroll during the past five years must resubmit transcripts, documentation, and pay the application fee when reapplying to the university.

Once a document is submitted to University of Houston-Clear Lake, it becomes the property of the university and will not be returned or otherwise sent by e-mail, fax or US mail to another institution or entity. Students may receive a copy of their previously submitted transcripts or scores in person, by bringing a valid Texas Driver's License or ID to the Office of Admissions and completing a request form to release the information.

Encumbrance Holds or Service Indicators

An encumbrance hold will prevent students from registering for the next enrollment term until all appropriate admissions documentation is received. Failure to provide official documents will result in an encumbrance hold that will hinder future registration attempts and stop the release of records, including University of Houston-Clear Lake transcripts. Encumbrances may vary by restriction and type and may be placed by various university departments.

Encumbrance holds placed by any University of Houston system campus (UHCL, University of Houston (UH), University of Houston-Victoria (UHV) or University of Houston-Downtown (UHD)) will not hinder registration and/or enrollment at a different campus unless the hold is a "Cross Campus B91, B92, B93 or B99" financial hold. A financial hold of this type will be applied to student records at each system campus. Although each campus applies the hold; it can only be cleared at the campus where the hold originated. The Cross Campus financial hold must be cleared, before students are eligible to register at any campus in the University of Houston system.

ADMISSIONS COMMUNICATIONS

E-mail

The university assigned campus e-mail address is the official communication vehicle for all student information and exchanges among academic administrative offices. Students are responsible for checking e-mail regularly to assure they receive important university

information in a timely manner. Students who choose to utilize e-mail addresses other than the one assigned to them by University of Houston-Clear Lake must log in to E-Services and forward their UHCL e-mail to another valid e-mail account to ensure access to important information and requests.

Notification of Admission

Upon receipt of appropriate documentation, the Office of Admissions will determine the eligibility of applicants to the university and will notify them of this determination. After acceptance, applicants will be notified of registration dates and procedures. This information is also available on the university's Web site.

Acceptance into a Degree Program

Acceptance of students into a degree program is determined by the admission standards of each academic school or department. Credit earned at University of Houston-Clear Lake is not automatically counted toward the completion of a degree program. Applicable credit is applied once the CPS has been completed and signed by both students and their advisers.

READMISSION OR STATUS CHANGE PROCESS

Former UHCL students

Former students (see *Status Descriptions*) seeking readmission should submit the following:

A completed Admissions Application

A non-refundable application fee (see *Application Fees*)

Official transcript(s) of any course work completed since the last semester of enrollment at University of Houston-Clear Lake. Students who graduate from UHCL and wish to enroll in additional course work must complete a new application and submit the appropriate application fee.

Former students are required to resubmit documents from other institutions for consideration of readmission if it has been more than five years since enrollment or if those items are no longer on file.

Students who leave the university on academic probation will be readmitted on probation. A degree-seeking student whose permission to register was terminated due to an academic deficiency must be reinstated by the appropriate dean prior to readmission. Non-degree-seeking students may be reinstated by the Associate Vice President of Enrollment Management.

Changing Careers or Classifications

Enrolled students who would like to change their academic careers from undergraduate to graduate (vice versa) or who would like to change their classification from non-degree-seeking to degree-seeking, must submit a new application to the Office of Admissions, pay the application fee and meet appropriate admission criteria and deadlines. Students who enroll in a degree-seeking status and wish to change to

non-degree-seeking should complete an Academic Records Change form (ARC) in the academic advising office of their program. This change will be processed in the Office of Academic Records.

Applicants to the university who applied to either an undergraduate or graduate career and would like to change their career can do so once without submitting a new application by completing an *Application Update Request* Form. After the initial change to a different career, students are required to reapply and submit a new application fee in order to make an additional career change. Program or classification changes within the same career are allowed using the Application Update Request form prior to the first day of classes.

ADMISSIONS REQUIREMENTS

Applicants who have earned a bachelor's degree or higher from an approved regionally accredited institution and who are eligible to return to the last institution attended will be considered for admission to University of Houston-Clear Lake. Admission to the university does not ensure admission to degree candidacy in an academic discipline and separate admission criteria must be met within each school.

ADMISSION PROCEDURES

All applicants for admission are encouraged to apply online and must present documented evidence that they meet the appropriate admission requirements. International students have additional documentation requirements (see *Documentation for Admission from International Institutions*).

Degree-seeking applicants must:

1. Submit an application for admission. To apply online, visit the *Office of Admission's Web site*. Some programs require a dual application process: a university application and a program application.
2. Submit a non-refundable application fee (see *Application Fees*)
3. An official transcript from each institution attended. Transcripts should be sent to the Office of Admissions from the previously attended institution. Transcripts from institutions outside of the United States must be accompanied by an English translation from an accredited agency.

An official graduate score report for the Graduate Management Assessment Test (GMAT), Graduate Records Examination (GRE) or Miller Analogies Test (MAT) per the requirements of the appropriate academic program or department. All score reports should be sent directly to the Office of Admissions.

Transcripts should reach the Office of Admissions by the published deadlines of the semester in which the student plans to enroll. If documentation is not received by this time; or, if the documentation is received and it indicates that admission requirements have not been met, an encumbrance hold will be placed on the students' record (see *Encumbrance Holds*). Students who have course work in progress at the time of admission and/or those who enroll in course work at another institution of higher

education after enrollment at University of Houston-Clear Lake, should send documentation directly to the Office of Admissions immediately upon the completion of that course work.

Applicants with pending bachelor degrees

Applicants who are transferring to University of Houston-Clear Lake or current UHCL undergraduate students applying to a graduate program may be admitted if they are pending receipt of a bachelor's degree. To qualify, students must meet current admission requirements and the following:

- Applicants who are transferring to UHCL from another institution must have already completed graduation requirements or be in progress for courses that will complete graduation requirements at their current school. They must also submit official documentation that a bachelor's degree will be awarded. A letter of standing from the associate dean or registrar at their home institution is required. These students must earn a bachelor's degree prior to enrollment at UHCL and an official transcript with the degree posted must be received prior the first day of classes.
- Current UHCL undergraduate students who apply to a graduate program while completing a bachelor's degree, must have an application for graduation on file with the Office of Academic Records that has not been denied. The Office of Admissions will verify pending degree information prior to approving admission to the graduate program. Approved students must earn their bachelor's degree prior to the first day of classes. Those who do not receive their bachelor's degree will be allowed to complete their undergraduate degree before enrolling in graduate studies.

Non-degree-seeking applicants

Non-degree-seeking graduate students are those who wish to enroll for reasons other than the pursuit of a degree at University of Houston-Clear Lake. Students wishing to enroll in a graduate non-degree-seeking status must submit an official transcript from the last institution attended and an official transcript showing their highest degree conferred. Credit earned in a non-degree-seeking status will not automatically be applicable to a specific academic degree program and some courses are restricted to only degree-seeking students. Additionally, some academic departments limit the number of hours that can be taken in a non-degree-seeking status that can be applied to a Candidate Plan of Study (CPS). Non-degree-seeking students planning to enroll in graduate course work in the School of Business must have permission from the associate dean or appropriate designee, prior to registering for classes. For a specific program's policies regarding course availability and application, please refer to the appropriate section of this catalog.

Graduate Transient Status

Graduate students in good standing at another institution may be admitted to University of Houston-Clear Lake as transients for one semester. These students generally plan to transfer course work back to their transfer institution. Transient students must submit official transcripts showing proof that a bachelor's degree or

higher has been conferred. Due to prerequisite requirements, some programs may require a letter of standing from the transfer institution indicating the course work being requested.

Transients who wish to enroll in a second semester must obtain permission from the associate dean of their academic program. They must then reapply by submitting a new application and application processing fee to the Office of Admissions. Students enrolling under this option, who subsequently decide to become degree-seeking, are required to reapply and pay the appropriate application fee (see *Application Fees*) and must meet the university's and academic program's current admission requirements (see *Graduate Studies Applicants*).

Certificate Programs

Applicants seeking a to earn a certificate without earning master's degree, must apply for admission, pay the application fee and submit transcripts from all previously attended institutions. Graduate test scores are generally not required; however, some programs may require a score (e.g. Applied Behavior Analysis-Certificate Program). Please check the appropriate program's Web site for verification of a score requirement. Since certificate programs are considered non-degree-seeking, students enrolling in these programs are not eligible for financial aid or Dollars for Scholars awards.

Teacher Certification

Students who are seeking a master's degree can be simultaneously enrolled in a teacher certification program. Students are encouraged to seek appropriate advising through their academic department. Applicants to a teacher certification program, who do not plan to pursue a graduate degree, should apply as undergraduates in the post-baccalaureate status.

GRADUATE TRANSFER CREDIT INFORMATION

Transfer of Graduate Credit

Master's degree programs require a minimum of 30 semester credit hours. The last 24 semester credit hours must be resident credit earned at University of Houston-Clear Lake. The possibility of transferring credit toward a master's degree is limited to no more than 12 semester credit hours, but in most instances may not exceed six semester credit hours. The doctoral degree program requires a minimum of 69 hours beyond the master's degree. The possibility of transferring credit toward the doctoral degree is limited to no more than 21 hours, but in most cases may not exceed 12 semester credit hours. Previously earned graduate credit is not necessarily applicable:

- Only graduate courses with grades of "B-" or above are transferable; grades of "C+" or below are not transferable.
- The dean of the academic program will determine whether the content of such course work is pertinent to the degree objective.

- Courses completed more than five years prior to admission into a graduate program at UHCL may not be counted toward fulfilling the required number of hours unless approval is granted by the dean.

Credit applied to a previous graduate degree may not be used to fulfill requirements of an additional degree.

GRADUATE APPLICATION DEADLINES

School of Human Sciences and Humanities

Clinical Programs

Clinical Psychology, Family Therapy, School of Psychology

December 10 through January 25

(Both university and program applications are required)

Applied Behavior Analysis

Fall – April 15

Spring - October 15

(Both university and program applications are required)

School of Education

Counseling

Fall - June 1

Spring - October 1

(Both university and program applications are required)

Doctor of Education (EdD) in Educational Leadership

Fall admission only - March 15

(Both university and program applications are required)

All Other New Graduate Students

Fall - August

Spring - December 1

Summer - May 1

EXAMINATIONS FOR GRADUATE CANDIDACIES

All new graduate students must provide standardized test results for the GRE, GMAT or MAT examinations to the Office of Admissions as required by their academic program (refer to the program's section of the catalog). Former students, pursuing a degree in a new academic area or program, may be required to take a different graduate examination prior to being admitted and must apply by the posted new student deadline for graduate students.

Scores must be received directly from the testing agency. Hand-carried or student copies of score results or those that are more than five years old at the time of application are considered unofficial and will not be accepted. Students enrolling in a non-degree-seeking status are generally exempt from the standardized test requirement (please check the appropriate program's requirements); however, they are required to meet current admissions requirements and must reapply and pay the application fee before changing to a degree-seeking status.

Examination Exceptions

- The university will waive the graduate test score requirement for applicants with an earned doctorate from an accredited US institution, (e.g. Ph.D. or Ed.D. Graduate score exemptions will also apply to applicants who have earned an M.D., D.D.S. (or other appropriate dental degree) or J.D. degree and are licensed to practice in the United States.
- The School of Business will exempt applicants who have earned a graduate degree from a business school accredited by AACSB International (Association to Advance Collegiate Schools of Business).
- The Graduate Acceptance Committee in the School of Science and Computer Engineering may request a Dean's Exemption for applicants who have earned a graduate degree in an appropriate field of study from a regionally accredited institution of higher education.
- Applicants to the School of Human Sciences and Humanities who have earned at least a 3.0 GPA on the last 60 hours of course work or who hold a master's degree or higher. This exception does not apply to Clinical programs (Clinical Psychology, Family Therapy or School of Psychology) or the Applied Behavior Analysis program.
- Applicants to the School of Education who hold a bachelor's degree or higher and have earned at least a 3.0 GPA on the last 60 hours of course work. This exception does not apply to the Counseling program or to the Doctor of Education (EdD) in Educational Leadership program.

Telephone Numbers and Information

Graduate Record Examination (GRE), Graduate Management Admission Test (GMAT) and Miller Analogies Test (MAT) test center information is listed below. For more specific examination requirements by college, program or plan, please refer to the appropriate school's section of this catalog.

Graduate Record Examination (GRE)

- Phone 1-609-771-7670 or 510-654-1200
- Institution code - R6916

Miller Analogies Test (MAT)

- Phone 1-800-622-3231

Graduate Management Admission Test (GMAT)

- Phone 1-800-717-4628

Select code by program of interest as follows:

- 1FD-BS-78 Master's in Healthcare Administration
- 1FD-BS-76 MBA, Full-Time
- 1FD-BS-08 MBA, Part-Time
- 1FD-BS-45 MA in Human Resource Management
- 1FD-BS-29 MS in Accounting
- 1FD-BS-71 MS in Environmental Management
- 1FD-BS-86 MS in Finance
- 1FD-BS-81 MS in Management Information Systems
- 1FD-BS-93 MHA/MBA Joint Degree
- 1FD-BS-97 MS in Computer Information Systems

Majors that accept both GMAT and GRE scores are as follows:

- MHA
- MS-MIS
- MA-HRM
- MS-Environmental Management
- MS -Computer Information Systems

INTERNATIONAL ADMISSIONS

Deadlines

The application deadline dates for international applicants are as follows:

Spring	October 1
Summer	March 1
Fall	June 1

Admissions Requirements

Graduate international students must meet general admission requirements as noted in the Graduate Admission Procedures section of the catalog, in addition to the following:

1. An International Graduate Application for Admission (for applicants who have earned a bachelor's degree or higher and who wish to pursue a graduate degree)
2. A non-refundable application fee (see Application Fees)
3. An official TOEFL, PTE or IELTS score report meeting minimum score requirements or official documentation of successful completion of ELS level 112 intensive English Language Program (please see the *English Proficiency Requirement*).
4. A signed Sponsor's Affidavit
5. A signed Statement of Understanding
6. An International Student Adviser's Report (if currently attending an institution in the U.S.)

7. A copy of a current I-94 and SEVIS I-20 record (pages 1 and 3), if available

Please note: International students submitting foreign documents must follow University of Houston-Clear Lake procedures for the submission of this documentation (see *Documentation for Admission from International Institutions*)

Non-degree-seeking status

International students holding F-1 visas are not eligible to apply for admission to a non-degree-seeking status. F-1 visa holders must apply as degree-seeking students to a specific degree plan or program. J-1 students may be admitted as non-degree-seeking 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 admitted by the University of Houston-Clear Lake
- Notify the "transfer-out" school of their intent to transfer by completing a transfer form
- Submit letter of acceptance to the "transfer-out" school. The "transfer-out" school must then release the SEVIS record to UHCL prior to the student receiving eligibility for enrollment.

International Conditional Admission

International students who meet the institution's admission requirements for their chosen degree program, but who have not yet met the English Proficiency requirement, can be conditionally admitted. To satisfy the English Proficiency requirement and be fully admitted to the university, students must enroll and successfully complete an approved ELS Level 112 intensive English program or submit an alternate means of English Proficiency as required for admission by University of Houston-Clear Lake (see *English Proficiency Requirements for Students Educated Outside of the US*).

English Proficiency Requirements for Students Educated Outside of the United States

All applicants, regardless of immigration status, who were born or educated in countries where English is not the native language must demonstrate English proficiency. The intent of this policy is to insure 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.

Applicants may satisfy the English proficiency requirement by presenting:

- An official Test of English as a Foreign Language (TOEFL) score. The minimum acceptable scores are 550 on the written exam or 79 on the iBT TOEFL examination,
- An official Pearson Test of English Academic (PTE) score of 53 or higher,
- An official International English Language Testing System (IELTS) score of 6.0 or higher, or

- Official documentation of successful completion of ELS Level 112 intensive English program.

Score reports may not be more than two years old at the time of admission. Only official scores will be accepted.

Procedure to Apply for an English Proficiency Waiver

A TOEFL exemption may apply, if at least one of the following requirements is met:

- Applicants have earned a high school diploma from a US high school or earned an Associate's of Arts or an Associate's of Science degree from a regionally accredited US institution of higher education.
- Applicants were educated in a country where English is the native language. This exemption refers to students from Australia, Bahamas, Belize, British Isles (England, Ireland, Scotland, and Wales), English-speaking Canadian provinces, Fiji Islands, Guyana, Jamaica, Liberia, New Zealand, Sierra Leone, South Africa, St. Lucia, Trinidad, United States, Virgin Islands, West Indies and Zimbabwe.*
- Applicants present qualifying test scores from SAT, ACT, ASSET, ACCUPLACER, COMPASS, TAAS, THEA/TASP and Stanford Achievement Tests (for deaf students only). Specific exemption information can be obtained by contacting the Office of Admissions. All information used to exempt students from TOEFL requirements must be received directly from the appropriate testing agency or posted on an official transcript from a transfer institution.
- Applicants have completed 12 or more semester credit hours of English from a regionally accredited US institution of higher education with grades of "C" or better, with six of the 12 semester credit hours being English composition. English as a Second Language (ESL) courses will count only if they would apply toward a degree at the institution where the courses were taken.
- Applicants have earned a bachelor's degree or higher from a regionally accredited US institution of higher education or a recognized foreign institution of higher education where English is the medium of instruction and where English is both the native and official language.

* An applicant whose native language is not English, but who has earned a bachelor's degree or higher from an English-speaking country, may request consideration for a TOEFL waiver. Applicants requesting a waiver of the TOEFL or IELTS examination and will not enroll in ELS 112 must submit a petition in writing, with supporting documentation, to the Office of Admissions a minimum of 30 days prior to the term in which they wish to enroll. The appropriate action will be taken only when full documentation is provided.

Co-Enrollment (International Students)

International students seeking a degree at University of Houston-Clear Lake may obtain an International Student Adviser's permission to co-enroll at another institution. A concurrent enrollment form must be obtained from a UHCL international adviser prior to registration in the appropriate school/department of concurrent enrollment. Proof of

payment for concurrent enrollment at another institution of higher education must be provided to a UHCL international adviser for the current semester.

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 private health insurance comparable to the university's coverage may request a waiver of the university's health insurance.

Students may provide coverage information by US mail, e-mail or fax to the attention of International Admissions. Health insurance waiver requests will be accepted until the census date, which is the 12th class day in spring and fall semesters and the fourth class date in regular summer terms. Requests for waivers or refunds after the census day will not be considered.

Check-In

International students holding F and J visas are required to meet with an international student adviser upon arrival to campus. Students are required to bring their passport, visa, I-94, I-20 or DS-2019 and official copies of their transcripts and other academic documents showing degree completion and final semester course work. All F and J visa holders should check the Office of Admissions' Web site for current dates, times and the location of check-in.

UNIVERSITY POLICY REGARDING DISCRETIONARY AUTHORITY

The university reserves the right to reject applicants whose record does not indicate potential success at University of Houston-Clear Lake, notwithstanding the completion of other requirements. The university also reserves the right to further evaluate applicants by using psychological, achievement and/or aptitude tests and personal interviews. Additionally, the university reserves the right to reject applicants who falsify information submitted for admission consideration or used to determine admissibility to the university. Readmission may be denied to former students who have falsified university documents or who have used a university official's signature inappropriately, for personal benefit or gain.

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, the function of academic advising is provided directly through the four schools: Human Sciences and Humanities, Science and Computer Engineering, Business and Education. Matters affecting degree requirements and graduation are best handled by professional advising staff and faculty working directly within individual academic areas. Each school within UHCL has developed unique advising procedures to best serve the needs of its students. The relationship between students and advisers provide the opportunity to learn more about educational choices and objectives, degree requirements, academic policies and procedures and university resources. All students

are strongly urged to contact their academic adviser prior to registering for their first semester at UHCL.

Ultimately, students are responsible for seeking adequate academic advice, knowing and following degree requirements, noting and meeting important academic deadlines, and enrolling in appropriate courses to ensure timely progress toward a degree. A successful academic experience hinges on the partnership and communication shared by the students and advisers.

What to expect from advisers:

1. Evaluation of student's transcripts
2. Adequate office hours and availability throughout the semester
3. Assistance with registration course selections
4. Accurate information regarding degree requirements and degree plans
5. Assistance with evaluation of syllabi/course descriptions to determine acceptability of transfer course work
6. Accurate audit of a CPS, upon request, to determine the students progress toward graduation
7. Assistance identifying solutions to academic difficulties
8. Helpful referral to other university resources for additional assistance
9. Appropriate confidentiality
10. Respect, support and encouragement

What is expected of students:

1. Attend New Student Orientation
2. Learn their advisers and the location of the advising office
3. Contact the adviser before deviating from requirements specified on the prepared degree plan
4. Contact the adviser for assistance BEFORE the issue becomes urgent
5. Keep track of academic progress and degree plan each semester
6. Know university and school requirements and policies that may affect you
7. Learn about and make use of all resources on campus
8. Keep scheduled appointments
9. Follow through on adviser recommendations
10. Be responsible for planning course of study and fulfilling all requirements and procedures
11. Accept ultimate responsibility for personal decisions and actions
12. Respect and comply with deadlines and requests for needed academic documents

How to prepare for a meeting with an adviser:

Check to make sure the adviser will be available

1. Bring an up-to-date degree plan
2. Have a list of questions and/or concerns so time can be used judiciously
3. Remind the adviser of previous discussions
4. Become familiar with the advising process in the chosen school. Make sure the adviser has your most current contact information. Plan ahead and ask questions so

that academic progress, decision-making and attainment of the university degree can be achieved with utmost success.

ADVISING OFFICES/INFORMATION

Bayou Building

	Room	Phone	E-mail
School of Business	B2111	281 283-3110	busadvoff@uhcl.edu
School of Education	B1231	281 283-3600	education@uhcl.edu
School of Human Sciences and Humanities	B1539	281 283-3333	hshadvising@uhcl.edu
School of Science and Computer Engineering	B3611	281 283-3711	sceadvising@uhcl.edu
Distance & Off-Campus Education	B1406*	281-283-3031	disted@uhcl.edu

Student Services and Classroom Building

Career and Counseling Services (for non-degree-seeking students)	S3109	281 283-2590	www.uhcl.edu/careerservices
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*for more information go to www.uhcl.edu/disted



Built on a 524-acre wildlife and nature preserve, University Houston-Clear Lake serves the Texas upper Gulf Coast. Students may earn bachelor's, master's or doctoral degrees in more than 40 fields of study including healthcare administration, instructional technology, digital media studies and biotechnology. The university, which has awarded more than 49,000 degrees since opening its doors in 1974, delivers outstanding educational opportunities in a traditional classroom setting using the latest instructional technologies, as well as cutting-edge distance learning, to a diverse student population.





UHCL provides many opportunities and financial aid packages to assist students in making their educational goals become reality.



FINANCIAL AID

- Financial Aid
- Scholarships
- Veterans Benefits
- Vocational Rehabilitation

FINANCIAL AID PROGRAMS

The financial aid programs listed below are available to students seeking a graduate 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.ed.gov. More information regarding the types of aid listed below can be found at www.uhcl.edu/finaid.

Program

- Federal TEACH Grant
- Texas Public Educational Grant (TPEG)
- University Scholarships
- Certified Educational Aides Exemption Program
- Fifth Year Accounting Scholarship
- Resident Graduate Student Assistance Grant
- Federal College Work Study Program (FWSP)
- Texas College Work Study Program (TWSP)
- *Federal Perkins Loan
- *Federal Direct Subsidized Stafford Loan
- Hinson-Hazlewood Loan
- Federal Direct- PLUS Loan
- Federal Direct Grad PLUS Loan
- *Federal Direct Unsubsidized Stafford Loan
- Short Term Loans

*All students applying for their first Federal Direct Loan at UHCL must complete entrance loan counseling at www.dl.ed.gov before loan funds can be disbursed.

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 admitted to a degree-seeking graduate program
- Be enrolled at least half-time at UHCL
- Be making satisfactory academic progress toward a degree

- Not be in default on any education loan or owe a refund on a federal or state grant
- Be registered with Selective Service System, if male.

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:

- 2010-2011 Free Application for Federal Student Aid (FAFSA) available online at www.fafsa.ed.gov.
- If the FAFSA is selected for verification, signed copies of the student's 2009 Federal Income Tax and 2009 W-2 forms will be requested (along with those of spouse when applicable).

Priority deadline is April 1 of each year. Students applying after April 1 can expect the majority of the grant money to be exhausted.

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.

Financial aid is awarded based on enrollment projections on the applicant's FAFSA. Therefore, eligibility and enrollment must be verified before funds are disbursed to each student's account at the beginning of each semester.

Enrollment must again be verified after classes begin. 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.

E-MAIL AS OFFICIAL COMMUNICATION

The Office of Student Financial Aid will notify students regarding information needed, awards offered, etc. via e-mail. Students should check their UHCL e-mail accounts regularly to receive information from the Office of Student Financial Aid as well as other university offices. For information regarding UHCL e-mail, or to log in, go to <http://webmail.uhcl.edu>.

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

DISBURSEMENT OF FUNDS

Financial aid disbursements begin approximately 10 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 or dropped for non-payment.

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

Some forms of financial aid, such as TEACH 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 e-mail when their financial aid is applied to their 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 certification. The Office of Student Financial Aid also uses this requirement for awarding institutional funds.

Review for SAP is done at the time the student first applies for financial aid and after that on a yearly basis. However, SAP is calculated at the end of each semester for students who have previously been on financial aid probation or have previously not met SAP. SAP is based on the following qualitative and quantitative measures:

Grade Point Average:

- The qualitative measure requires that graduate students working on a master's degree or doctoral degree must maintain a cumulative GPA of 3.000 or better. Once a UHCL degree has been posted, SAP begins anew.

Completion Ratio:

- The quantitative measure requires that students must have completed 75% of their cumulative attempted UHCL course work. This percentage is derived by dividing the total number of UHCL hours completed by the total number of UHCL hours attempted. Attempted hours are the total number of hours completed plus hours of "WX", "I", "F", "WQ", and "IP". The percentage derived must be 75% or greater.

Timeframe to Complete Academic Program

- First Master's: within a total of 54 UHCL hours.
- Second Master's: time determined by the Candidate Plan of Study.

Note: Students changing plans are still held to timeframes originally begun with the first major chosen. However, if students require additional time for completion of the new plan, they can petition the Office of Student Financial Aid for review of extended

time. Also, the Office of Student Financial Aid may extend the timeframe for students who are enrolled in particularly long programs of study if requested by the student. Students must provide a Candidate Plan of Study with the extension request.

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 placed on "financial aid probation" for the following semester. Students will be notified via UHCL e-mail of their probationary status. If students fail to meet SAP the following semester, they will not be eligible to receive financial aid unless they complete an SAP appeal and that appeal is approved.

Students who fail to meet the timeframe requirement are not granted an automatic probationary status and will not be eligible to receive financial aid unless they complete an SAP appeal 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 on employer's letterhead is required.
- Personal illness or serious illness of immediate family members such as spouse, child, parent or sibling. Documentation from the physician on physician's letterhead is required.
- Mitigating circumstances. Appropriate support documentation is required pertaining to individual circumstances. Each appeal is reviewed on its own merit.

Appeal forms are available online at www.uhcl.edu/finaid under Online Forms and Services 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 semesters required to complete the degree, and how this will be accomplished.

Appeal forms 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). Supporting letters must be typed with documentation attached plus a copy of the student's Candidate Plan of Study. Letters must contain the student's name, student ID number, number of semesters or credit hours needed to complete degree requirements, the degree objective and the explanation for the unsatisfactory academic progress. Appeals not meeting this format will be returned to the student without consideration. The SAP Committee will review all appeals at least twice a month. All decisions reached by the SAP Committee are final. Students will be notified via e-mail regarding the outcome of their appeal.

FINANCIAL AID POLICY FOR STUDENTS WITHDRAWING FROM THE UNIVERSITY

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 who receive 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 the 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.

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 Perkins Loan
- Federal Direct Grad PLUS Loan
- Federal TEACH Grant
- Other Title IV programs

DROPPING FROM A CLASS BUT RETAINING HALF-TIME STATUS

Financial aid awards are based on the number of hours indicated on the student's FAFSA. 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 will be required to make repayment of the appropriate funds.

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.

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 will receive an e-mail with available jobs. After reviewing the position description, students can apply for jobs online.

EXIT INTERVIEW

When Stafford 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 www.dl.ed.gov. Perkins exit interviews may be scheduled through the Cashier's Office.

SCHOLARSHIPS

The Office of Student Financial Aid is committed to awarding scholarships to students consistent with the educational mission of our university. Graduate students (including international students) entering UHCL for the first time may apply for a Dollars for Scholars scholarship award. Additionally, current/continuing UHCL students may apply for university scholarships annually. For information and to apply for scholarships, please visit www.uhcl.edu/scholarships.

VETERANS AFFAIRS

To be certified for VA educational benefits veterans must be accepted for admission at UHCL and submit the following:

- UHCL Application for VA Educational Benefits Certification
- Candidate Plan of Study (CPS) (degree plan)
- VA form 22-1990 or 22-1995 (Application for VA Benefits or Request of Change of Degree/Place of Training)
- DD214, Member 4 Copy
- Copy of Military Transcripts

Veterans must notify the Office of Student Financial Aid of any change in course load throughout each semester.

SATISFACTORY ACADEMIC PROGRESS

Satisfactory academic progress for veterans receiving VA educational benefits is defined by VA. Graduate students must maintain a cumulative GPA of 3.00.

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 be allowed a second probationary semester.
- Have not achieved the required cumulative GPA at the end of the second probationary semester will be reported to VA as making unsatisfactory academic progress.

HAZLEWOOD ACT

The Hazlewood Act passed by the Texas legislature provides for a waiver of tuition and certain fees for Texas veterans. A veteran may qualify for benefits under Hazlewood Act if he or she:

- Was a Texas resident at the time of entry into the armed forces of the United States.
- Served at least 181 consecutive days of active military duty (calculated as the sum items in 12(c) and 12(d) on Member 4 copy of the DD214) not including training days.
- Received an honorable discharge, a general discharge under honorable conditions, or an honorable release from active duty.
- Has resided in Texas for at least 12 months or otherwise meets the state requirements for being considered a resident of Texas at the time of enrollment at UHCL.
- Has attempted fewer than 150 credit hours of college courses since fall of 1995 using the Hazlewood exemption.
- Is not in default on any educational loans made or guaranteed by the State of Texas.
- Completes a required statewide application for Hazlewood exemption from Texas Higher Education Coordination Board before the census date of each semester.

Hazlewood benefits are not transferred from one state university to another. Veterans must reapply and provide UHCL with all necessary documents, including a completed Hazlewood Application (available at www.uhcl.edu/finaid under Online Forms and Services), a DD-214 (Honorable discharge, Home of Record, and six months of service must appear on DD-214) and a letter from VA stating all VA Benefits have been exhausted (unless the veteran has been out of the military for more than 10 years).

The Legacy Act allows veterans eligible for the Hazlewood Act to transfer unused Hazlewood hours to an eligible child. Eligible children are the biological child, stepchild, or adoptive child of a veteran that are:

- Claimed on the veteran's federal income tax return
- A resident of Texas
- Making satisfactory progress towards degree completion
- 25 years of age or younger, unless the child provides documentation from a physician indicating he or she suffered from a severe illness or other debilitating condition which prevented the child from using the exemption before the age of 25.

Students interested in using this benefit should contact the Office of Student Financial Aid for application instructions.

HAZLEWOOD EXEMPTION DEADLINE

If the student provides his or her eligibility for the Hazlewood Exemption before the census date of each semester, then the institution must honor the waiver. But, all students must turn in a statewide Hazlewood application to their institution by the census date; all other supporting documentation can have extensions on them. UHCL will not honor Hazlewood requests after the census date. Hazlewood exemptions are not retroactive to prior terms.

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.



Students applying for financial aid can complete the process entirely online.





Faculty and graduate students enjoy Alumni Plaza in anticipation of a great semester.



REGISTRATION AND RECORDS SERVICES

- Registration
- Tuition and Fees
- Academic Record Services

REGISTRATION

Enrollment is necessary for every period of attendance at University of Houston-Clear Lake. The Office of Academic Records send announcements to specify times and places and give other instructions for completing the enrollment process. Registration assistance and Academic Records forms may be obtained from the The Student Assistance Center, suite 1.102, Student Services and Classroom Building, or by accessing www.uhcl.edu/records. 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. Questions regarding registration should be directed to the Office of Academic Records.

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 insufficient to split classes that are over-enrolled and to change the instructor and/or classroom without advance notice.

DEGREE-SEEKING VERSUS NON-DEGREE-SEEKING STATUS

- Degree-seeking students must select courses complying with provisions of their Candidate Plan of Study (CPS). 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 school for additional information. 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.

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 Academic Records. 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.

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 Academic Records before the first class day of the term. (Refer to the Refund Policies section of this catalog.) Requests for cancellations may be done through E-Services or in writing and received by the Office of Academic Records prior to the first class day of the term. Such notices may be faxed to the office at 281-283-2530.

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 Academic Records in order to correct any discrepancies. Only the Office of Academic Records is authorized to make official changes in students' registration status.

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 will be dropped from the course.

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 verifications of enrollment for a semester will begin on the day following the census date.

AUTOMATIC ENROLLMENT-MASTER'S OPTION COURSE WORK

Students' first semester of registration for master's thesis, project, internship or residency must be done in person. After the initial semester of registration in master's

thesis, project, internship or residency, students will be automatically enrolled in the same course work each long semester (fall and spring, but not summer) until a final grade is awarded. This registration will be processed during Open Registration, and students are expected to meet the fee payment deadline for Open Registration. Students wishing to be enrolled for summer semesters must notify the Office of Academic Records prior to the beginning of the summer semester.

TIME CONFLICT ENROLLMENT

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

AUDITING COURSES

Application forms to audit a course may be obtained from the appropriate associate dean's office. 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. 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 need to provide evidence of age to the Cashier when requesting waiver of fees.

The Office of Academic Records, suite 1.101, Student Services and Classroom Building, will be responsible for assisting senior citizens to determine course availability, approval of instructor, registration procedures and general auditing regulations.

TUITION AND FEES

The tuition and fee 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 fee charges.

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.

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, 62nd Texas Legislature:

- Residents of Texas will be charged tuition at the rate of \$100 per semester credit hour for students.
- Non-residents of Texas and foreign students will be charged tuition at the rate of \$410 per semester 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 under 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.

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 Texas Legislature in 2003, the university governing boards have been authorized with 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 \$75 for an annual permit, or \$40 for each fall and each spring, and \$25 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 issued by the University Police Department for additional information.

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

Lost or stolen parking permits must be reported to the University Police immediately so that a replacement permit may be issued. There is no charge for the first replacement permit, but an administrative fee or replacement of second and subsequent permits may be charged.

Computing Fee

The proceeds from the Computing Fee shall be used to provide students with access to computing facilities for activities and uses that are part of regularly scheduled academic functions of the university, and which are related to instructional activities, lectures, homework projects and provisions of the learning environment.

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 \$6 per credit hour, up to a maximum of \$54 per semester for all students registering for classes.

Publication and Transcript Fee

A Publication and Transcript Fee of \$15 is required of all students to cover the costs of university publications (Quick Reference Guide, catalogs, etc.) and reproduction of transcripts.

E-Services Fee

An E-Services Fee of \$13 is required of all students to cover the costs of maintaining online and telephone registration and other voice response registration system components.

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.

Graduate Programs Research Capability Fee (BUS)

Additional revenue will be used to purchase and support research databases befitting AACSB International accredited graduate business programs.

Designated Differential Tuition

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

The School of Business uses its DDT to hire a minimum of four full-time tenure-track faculty in the school. These new faculty will facilitate the school in meeting the faculty sufficiency standards for AACSB International accreditation.

The School 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. A percentage of the DDT collected will also fund student scholarships.

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

The School of Science and Computer 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.

School of Education Doctoral Program

The Designated Differential Tuition charged by the School of Education applies to doctoral-level courses only and will be used as excellence funding to support faculty development and research initiatives.

Writing Center Support Fee

The Writing Center Support fee will be used to provide administrative and support services for the Writing Center. Located in the Student Services and Classroom Building in SSCB 2105, this facility offers writing tutoring for all university students, faculty and staff. The charge will be \$9 per semester.

International Education Fee

The International Education Fee of \$2 is assessed to each student in order to provide scholarship support for those who participate in study abroad programs.

INSTALLMENT PAYMENT OF TUITION AND FEES

At the time of original registration UHCL students may pay their tuition and fees in full or they may elect a three-payment option (one half of tuition and fees at time of registration and the remaining one half in two equal installments). There is a \$15 non-refundable fee for the multiple payment plan. The installment plan is not available for summer semesters. Courses added after the original registration period must be paid for when added and cannot be applied to the installment plan. Payments due at the time of registration include:

- One-half of tuition and fees
- Non-refundable fee for installment plan

- Parking Fee
- Alumni donation (optional)
- E-Services Fee
- Late Registration Fee

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.

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.

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 the Office of the Cashier.

SPECIAL FEES

In U.S. Dollars

Alumni Donation	1
Certificate, Teacher	75
Certificate, Professional	75
Computer Use Fee (maximum of \$192 for each semester)	16/hr
Cooperative Education	75
Differential Designated Tuition (BUS) - Graduate	50
Differential Designated Tuition (SOE) - Graduate	12
Differential Designated Tuition (HSH) - Graduate	12
Differential Designate Tuition (SCE) - Graduate	25
Differential Designated Tuition - SOE Doctoral Program	20
Extended Access Fee	6/hr - 54/max
Doctoral Program Application	60
Duplicate Fee Statement, each	3
Duplicate Diploma	25
E-Services	13
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)	35
Graduate Program Research Fee (BUS only)	80
Graduate Studies Application	35
Graduation Application (includes diploma but not cap/gown)	65
ID Card	3
International Student Insurance (annual)	850
International Student Application/Evaluation	75
International Student Records Processing (per semester)	65
Internship	30 - 72
Laboratory, per course	Variable
Late Payment	50
Late Registration	50
Library Fee (maximum \$60 per semester)	6/hr
Matriculation (for withdrawal prior to first class day)	15
New Student Orientation	30/1-time
Parking (annual)	85
Parking (per long term)	50
Parking (summer)	35
Returned check charge, per check	20
Special course fee, when required; an amount sufficient to defray the cost of materials and/or supplies required. May include malpractice insurance.	Variable
Student Center Fee	30
Student Service Fee (max of \$180)	33/hr
Thesis binding, per volume	20
Thesis copyright	65
Thesis microfilm	45
Transcript/Publication	15
Tuition Recovery	130
Writing Center Support	9

Fee Schedule

CR HR	RES GRAD	NR/F GRAD	TUI DES GR	TUI DES NR/F GR	ST SVC	P/T FEE	COM USE	LIB FEE
1	100	410	169	209	33	15	16	6
2	200	820	338	418	66	15	32	12
3	300	1,230	507	627	99	15	48	18
4	400	1,640	676	836	132	15	64	24
5	500	2,050	845	1,045	165	15	80	30
6	600	2,460	1,014	1,254	198	15	96	36
7	700	2,870	1,183	1,463	198	15	112	42
8	800	3,280	1,352	1,672	198	15	128	48
9	900	3,690	1,521	1,881	198	15	144	54
10	1000	4,100	1,690	2,090	198	15	160	60
11	1100	4,510	1,859	2,299	198	15	176	60
12	1200	4,920	2,028	2,508	198	15	192	60
13	1300	5,330	2,197	2,717	198	15	192	60
14	1400	5,740	2,366	2,926	198	15	192	60
15	1500	6,150	2,535	3,135	198	15	192	60
16	1600	6,560	2,704	3,344	198	15	192	60
17	1700	6,970	2,873	3,553	198	15	192	60
18	1800	7,380	3,042	3,762	198	15	192	60
19	1900	7,790	3,211	3,971	198	15	192	60
20	2000	8,200	3,380	4,180	198	15	192	60
21	2100	8,610	3,549	4,389	198	15	192	60
22	2200	9,020	3,718	4,598	198	15	192	60
23	2300	9,430	3,887	4,807	198	15	192	60
24	2400	9,840	4,056	5,016	198	15	192	60
25	2500	10,250	4,225	5,225	198	15	192	60
26	2600	10,660	4,394	5,434	198	15	192	60
27	2700	11,070	4,563	5,643	198	15	192	60
28	2800	11,480	4,732	5,852	198	15	192	60
29	2900	11,890	4,901	6,061	198	15	192	60
30	3000	12,300	5,070	6,270	198	15	192	60

Fee Schedule Codes

CR HR	Semester Credit Hour	TUIDES	Tuition Designated	P/T FEE	Publication and Transcript Fee
RES	Texas Residents	COM USE	Computing Fee	ID CD	Identification Card
EXT ACC	Extended Access Support	ID EDU	International Education	ST SVC	Student Service
UTL SURCG	Utility Surcharge	ST CENT	Student Center	E-SER	E-Services
NR/F	Non-residents	LIB FEE	Library Fee	GR, GRAD	Graduate

Fee Schedule (continued)

CR HR	ID CD	EXT ACC	INT EDU	ST CENT	E SVCS	WRT CTR	R-GR TOTAL	NR/F GRAD TOTAL
1	3	6	2	30	13	9	402	752
2	3	12	2	30	13	9	732	1,432
3	3	18	2	30	13	9	1,062	2,112
4	3	24	2	30	13	9	1,392	2,792
5	3	30	2	30	13	9	1,722	3,472
6	3	36	2	30	13	9	2,052	4,152
7	3	42	2	30	13	9	2,349	4,799
8	3	48	2	30	13	9	2,646	5,446
9	3	54	2	30	13	9	2,943	6,093
10	3	54	2	30	13	9	3,234	6,734
11	3	54	2	30	13	9	3,519	7,369
12	3	54	2	30	13	9	3,804	8,004
13	3	54	2	30	13	9	4,073	8,623
14	3	54	2	30	13	9	4,342	9,242
15	3	54	2	30	13	9	4,611	9,861
16	3	54	2	30	13	9	4,880	10,480
17	3	54	2	30	13	9	5,149	11,099
18	3	54	2	30	13	9	5,418	11,718
19	3	54	2	30	13	9	5,687	12,337
20	3	54	2	30	13	9	5,956	12,956
21	3	54	2	30	13	9	6,225	13,575
22	3	54	2	30	13	9	6,494	14,194
23	3	54	2	30	13	9	6,763	14,813
24	3	54	2	30	13	9	7,032	15,432
25	3	54	2	30	13	9	7,301	16,051
26	3	54	2	30	13	9	7,570	16,670
27	3	54	2	30	13	9	7,839	17,289
28	3	54	2	30	13	9	8,108	17,908
29	3	54	2	30	13	9	8,377	18,527
30	3	54	2	30	13	9	8,646	19,146

*THE UNIVERSITY MAY CHANGE TUITION RATES AND OTHER CHARGES WITHOUT NOTICE WHEN SO DIRECTED BY THE BOARD OF REGENTS. ALL STUDENTS ARE CHARGED, PER SEMESTER, A TRANSCRIPT/PUBLICATION FEE, ID CARD FEE, AND WRITING CENTER SUPPORT FEE. ADDITIONAL BASE FEES INCLUDE A STUDENT CENTER FEE OF \$30 AND AN E-SERVICES FEE OF \$13 FOR REGISTRATION PURPOSES. GRADUATE STUDENTS WITHIN THE SCHOOL OF BUSINESS WILL BE CHARGED, PER SEMESTER, A GRADUATE PROGRAMS RESEARCH CAPABILITY FEE OF \$57.

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 the Cashier 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 the Cashier 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 the Cashier. In the case of a rebate, the student must apply for the rebate at the time of graduation in the Office of Academic Records. Once the rebate is verified by the Office of Academic Records, the refund will be issued by the Office of the Cashier.

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 Financial Aid and 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 January 1, 1946 while on extended active duty.

REFUND POLICIES

REFUNDS ON WITHDRAWALS

Students who pay tuition and fees for any term and who subsequently cancel their registration through the Office of Academic Records 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 \$13 E-Services 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. Applications for official withdrawal from courses or from the university must be made to the Office of Academic Records, 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 Academic Records at 281-283-2530. The university reserves the right to deduct from the refund any outstanding financial obligations to the university.

In order to obtain a refund of parking fees, the parking permit must be returned to the Office of the Cashier at the time of withdrawal. If the Parking Fee has been paid and the permit has not been issued, the fee statement must be returned to the Office of the Cashier at the time of withdrawal.

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 Higher One.

Refunds on Dropped Courses

Students who drop classes within the first 12 class days of a 15-week session; within the first four class days of an 8-week or 9-week session or within the first two class days of a 3-week, 4-week and 5-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 2nd class day of a 3-week, 4-week and 5-week session. Refunds will be processed through Higher One. UH-Clear Lake has partnered with Higher One 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.

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 for collection procedure and reported to the Credit Bureau of Greater Houston.

ACADEMIC RECORD SERVICES

Official student records reside and are maintained in the Office of Academic Records. 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 the office of the associate dean in the school from which they are earning their degree. Students wishing to change their career (level) or degree status should contact the Office of Academic Records for the appropriate application. 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 Academic Records. Requests for name changes must be accompanied by supporting documentation including driver's license, marriage license, divorce decree or official name change document.

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

TRANSCRIPTS

Students may request official copies of their transcript from the Office of Academic Records. There is no additional charge for a transcript. Transcript requests must be in writing with the name of the student, student ID or social security number, the number of copies, the address it is to be mailed to or if it will be picked up, a phone number where the student may be reached and the signature of the student whose record is requested. Fax requests will be accepted. The fax number is 281-283-2530. Transcripts can also be requested online through E-Services. Telephone requests or e-mails will not be honored. Students whose permanent records have been placed with a service indicator 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.

GRADE REPORTS

Students can access their semester grades online at www.uhcl.edu/records/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.

Grade Discrepancies

Students with suspected grade discrepancies on their grade report should check with the appropriate office of the associate dean for clarification.

POLICY ON RELEASE OF STUDENT RECORDS

The Family Educational Rights and Privacy Act 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 to personnel within the institution, to officials of institutions in which students seek to enroll, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a

judicial order and to persons in an emergency in order to protect the health or safety of students or other persons. All these exceptions are permitted under the act.

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, cashier, accounting, career and counseling services, student life, health center, financial aid, member 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 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 e-mail address, verification of date and place of birth, major field of study, dates of attendance, courses attended, classification, hours enrolled, date of graduation, degrees and awards received, the most recent previous educational agency or institution attended by the student, participation in officially recognized activities and sports.

Students who do not wish that public information (including their name, address and phone number) be released can go online 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. Information about this inspection and review process can be obtained in the Office of Academic Records.



Students can conveniently use E-Services to access records and registration information, even by the pool.





UHCL has more than 65 active student organizations. Here the Vietnamese Student Organization performs during the annual Cultural Extravaganza.



STUDENT SERVICES

- Associate Vice President
- Career and Counseling Services
- Dean of Students
- Health and Disability Services
- Intercultural and International Student Services
- Student Housing
- Student Life
- Student Publications
- Writing Center

OFFICE OF THE ASSOCIATE VICE PRESIDENT

The Office of the Associate Vice President for Student Services provides support and direction for the offices of Career and Counseling Services, Dean of Students, Health and Disability Services, Intercultural and International Student Services, Student Housing, Student Life, Student Publications and the Writing Center.

This office also provides students with advocacy, information and assistance in all phases of campus life. The Associate Vice President is responsible for interpreting and implementing student life policies, resolving disputes and disciplinary problems and handling student complaints. The rights and responsibilities of students are published in Student Life Policies. Standards of student conduct are enforced to ensure the safety of individuals, protection of property and the continuity of the educational process. Copies of Student Life Policies are available from the offices of the Associate Vice President, Student Life, Dean of Students and online at www.uhcl.edu under the Students tab.

	Office	Phone
Associate Vice President	Bayou 2523	281-283-3025
Career Services	SSCB 3109	281-283-2590
Counseling & Testing Services	SSCB 3103	281-283-2580
Health and Disability Services	SSCB 1301	281-283-2626
Disability Coordinator	SSCB 1302	281-283-2632
Intercultural and International Student Services	SSCB 1203	281-283-2575
Student Housing		281-286-5959
Dean of Students	SSCB 1201	281-283-2567
Student Life	SSCB 1204	281-283-2560
Student Publications	Bayou 1239	281-283-2570
Writing Center	SSCB 2105	281-283-2910

CAREER AND COUNSELING SERVICES

CAREER SERVICES

Career Services assists students in establishing and/or advancing careers in their degree fields and in finding jobs while they are enrolled in school. Some services are available

to alumni for a fee. Information on Alumni Career Services is available in SSCB 3.109 or at 281-283-2590. Career Services offers:

- Job search assistance
- Mock interviews and résumé critiques
- Resume referrals with career services registration
- On-line job listings
- On campus interviewing
- Multiple job fairs and networking events
- Cooperative Education. Cooperative Education (Co-op) is a planned learning experience designed to prepare students for careers by integrating work experience with academic study. This program offers:
 - Enriched student learning through experience gained from performing actual 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. The parallel plan allows students to work part-time while attending classes.

Students must be degree seeking and meet academic eligibility requirements as defined by individual schools. When enrolled in a cooperative education course, students will be considered full-time for purposes of enrollment verification, but not for purposes of determining eligibility for veterans' benefits or financial aid.

Before participating in on-campus job interviewing, using job lines or co-op, students are required to complete a Career Services or Co-op registration. Individual assistance is available by appointment and during drop-in hours. All other services are available during office hours from 8:30 a.m. to 7:00 p.m. Monday through Thursday and 8:30 a.m. to 12:00 p.m. on Friday.

COUNSELING AND TESTING SERVICES

Counseling and Testing Services are designed to assist students in improving personal, academic and professional skills related to academic success. The professional staff aids students in meeting these needs by providing short-term individual counseling sessions, seminars, workshops and small group experiences.

Most services, including individual and group counseling, are free of charge and strictly confidential. The following services and resources are available to UHCL students:

- Individual and group counseling
- Academic skills training
- Entrance Exams (MAT, THEA)
- Vocational testing and counseling

DEAN OF STUDENTS

The Office of the Dean of Students (ODOS) provides a variety of programs and services designed to support students in achieving both academic and personal success. The ODOS is committed to fostering human dignity through acts of civility and

respect; providing student-centered services and developing ethical leaders who work to create an inclusive community. The ODOS seeks to create student learning opportunities beyond the classroom that inspire intellectual, personal and civic growth for all students. The office staff serves as both advocates and liaisons for all students and are available to assist faculty, staff and parents in any way possible. Their primary purpose is to provide assistance to students and the university community in the following areas:

- Academic Resources for Student Success
- Campus Information Desk
- Community Building
- Conflict Resolution
- Emergency Resource
- Student Advocacy and Referral
- Student Assistance Center (SAC)
- Student Conduct
- Student Judicial Services
- Student Retention
- Student Success Center

STUDENT ASSISTANCE CENTER

The Student Assistance Center (SAC) is a unit of the Dean of Students Office and provides assistance relating to registration, student financials, admissions, financial aid, student records, transcripts, E-Services, and assistance with resolving academic and administrative issues. SAC provides support and general information to students, faculty, staff, and UHCL constituency.

STUDENT ADVOCACY

The Office of the Dean of Students provides referral and support for students experiencing difficulties. This includes assisting students in resolving concerns and conflicts, making needed referrals, implementing student life policies and resolving disputes and disciplinary problems, including the Academic Honesty Policy.

STUDENT SUCCESS CENTER

The Student Success Center is a comprehensive academic resource for the UHCL student community, which includes peer tutoring, supplemental instruction, and study skill workshops. The focus of the center and its services is to help students enhance their academic skills for a particular course. Moreover, the Center helps students more effectively manage information by using experience and guided practice exercises building confidence and competence in the classroom.

The Student Success Center works cooperatively across the university (i.e. Writing Center, Disability Services, Career and 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.

STUDENT TRAVEL POLICY

The University of Houston System has a policy that guides and directs all student travel. This policy, entitled "Travel by Students to Component University Funded Activity" (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 used must be owned by the institution or an organization registered at the institution.

Copies of the policy can be obtained upon request at the office, or by accessing the Dean of Students Web site at www.uhcl.edu/deanofstudents.

HEALTH AND DISABILITY SERVICES

HEALTH SERVICES

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

The Health Center has a women's health care clinic and a medical clinic that are supervised by a licensed Family Nurse Practitioner and physicians, which are available on an appointment-only basis. Complete laboratory services and a limited pharmacy are available and students may receive flu shots, immunizations, TB screening and routine injections. Nurses are readily available to answer health questions on a walk-in basis.

Prevention programs include screenings and health education on various medical issues. Acupuncture is available by appointment.

The Health Center encourages student health insurance for all currently enrolled students who are enrolled in 6 or more hours. Literature detailing the approved health insurance plan is available at our office. International students are required to have health insurance and are charged automatically at the beginning of each semester. International students may have this insurance waived if appropriate documentation has been noted.

DISABILITY SERVICES

The goal of Disability Services is to provide full participation and a fully integrated university experience for all members of the campus community. Services include academic accommodations, alternative testing, technological and adaptive resources, peer mentoring, resource material, scholarships and advocacy. The Coordinator of

Disability Services facilitates referrals to other offices, which provide students with counseling, advising, financial assistance and tutoring, as needed. To be eligible for services, a student must have recent comprehensive documentation of disability. Prior to the beginning of the semester, students should contact the Disability Office to ensure the availability of timely and appropriate accommodations.

INTERCULTURAL AND INTERNATIONAL STUDENT SERVICES

The mission of the Intercultural & International Student Services (IISS) Office is to provide leadership, advocacy and support, which facilitates the development of successful, well-rounded, educated and accepting individuals. IISS promotes and enhances awareness of cultural pluralism through programming and serves as a platform that empowers underrepresented, first-generation and international students. IISS offers a variety of programs and activities at no cost to all UHCL students.

- Student Advocacy - all students with concerns, problems, or students seeking advice may request assistance from the IISS staff. The staff serves as resources and advisors to all individuals and all groups of students, including underrepresented, first generation, marginalized, international, LGBT and women populations.
- Student Ambassador Program - IISS Student Ambassadors serve as peer mentors and advocates for all students.
- Cultural and International Resource Center - IISS maintains a collection of periodicals, books, training manuals, newsletters, audiotapes, and videos on a variety of cultural topics
- Cultural Programs/Festivals - IISS celebrates diversity on our campus with a variety of cultural programs designed to enhance the campus community members' understanding of different cultural practices, belief, and histories.
- Student Organizations - Staff provides support to ethnic and cultural student organizations and their events.
- External Scholarship Resources - Extensive information on external scholarships is available.
- Volunteer Services - Opportunities are available for students to become active participants in a variety of community services projects.
- Strictly Speaking - This is a program to assist international students in improving their spoken English skills by pairing international students with U.S. students.
- Total Success Plus (TS+) - This is a mentoring program for all students. Selected students are paired with UHCL faculty and staff to provide extra support and encouragement.

ORIENTATION

New International Students Orientation is offered prior to each Fall, Spring and Summer semester. 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, and academic and peer advising. Airport Pickup services are offered for first time international students.

WOMEN'S AND LGBT SERVICES

Women's Services program is offered to women and others interested in women's issues. Programming is designed to promote gender equality and awareness. Advocacy and support are available for female students and others who need it.

The purpose of Women's and Lesbian, Gay, Bisexual, and Transgender Services is to create educational programming for and about UHCL's female and LGBT students, staff, and faculty and to be advocates for their needs. Our services and programs are open to all those who are interested in women's and LGBT issues. The women's programming includes increasing awareness of sexual assault, the contributions of women throughout history, and health issues such as breast cancer and heart disease. Our largest women's program is VDAY UHCL "The Vagina Monologues", which raises money for anti-gender violence organizations. The LGBT programming includes a weekly discussion group and activities honoring LGBT History Month and National Day of Silence. We have also established a Safe Zone program which is a faculty and staff program created to identify a network of allies within the university. The faculty and staff members who display the Safe Zone logo have enthusiastically volunteered to be visible resources and advocates for LGBT people and their loved ones on campus.

UHCL-NCBI CAMPUS AFFILIATE

National Coalition Building Institute's (NCBI) prejudice reduction/conflict resolution model is for students, staff and faculty. This program is a proactive systemic approach to sustain an effective diversity-training program. The training is intended as a university-wide ongoing mechanism for the UHCL community to provide an institutional response to racial and inter-group conflict. This is best accomplished by recruiting and training a leadership team of student leaders, administrators, staff and faculty who act as a fully empowered team to address campus issues.

STUDENT HOUSING

University Forest Apartments is the only housing located on the UHCL campus. This 136-unit student housing facility is a two-story complex, which houses 288 students, faculty and staff. University Forest was built to provide comfortable living while providing students the opportunity to experience on-campus life. Three different types of apartments are available, allowing students to choose different living options. Individual leasing allows students the opportunity to have roommates and the financial security of only having to worry about their own rent. University Forest also has a twelve member staff that is on-call 24 hours a day to assist residents in any way possible. The caring staff also provides a variety of programming that makes residents of University Forest feel they belong to a great community. University Forest is ideal for students who enjoy meeting lots of people. To receive information on how to apply, call 281-286-5959 or e-mail UFA@UHCL.edu. The Student Housing office is open Monday - Thursday 8:30 a.m. - 6:30 p.m., Friday 8:30 a.m. - 5:00 p.m., and Saturday-Sunday 11:00 a.m. - 3:00 p.m.

STUDENT LIFE

The Office of Student Life provides programs and services that enrich and support students' educational experiences by giving them the opportunity to express ideas, develop leadership skills and meet new people. Services provided include locker rentals, student ID cards, ticket sales to various university events and posting approval. The Student Life Office is comprised of the following components.

ORIENTATION

A comprehensive orientation to UHCL is offered prior to each fall and spring semester for both undergraduate and graduate students. New students are strongly encouraged to attend this four-hour program, which addresses such topics as how to register for classes, how to make the most of campus life and how to utilize the available resources. Students are also given the opportunity to tour the campus, as well as meet with faculty, staff and other students. International students are encouraged to attend both this orientation and the New International Student Orientation sponsored by Intercultural and International Student Services.

STUDENT ORGANIZATIONS AND STUDENT GOVERNMENT ASSOCIATION

There are approximately 70 student organizations recognized at UHCL, which represent most 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 Life 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.

SPECIAL EVENTS PROGRAM

The Special Events Program provides cultural arts and special events, which enhance the artistic environment of the university and the region it serves. Activities include theater, music and dance productions, visual arts exhibitions, distinguished lecturers, Welcome Week Activities and the Chili Cook-Off.

FITNESS CENTER

The UHCL community can be active by becoming a member of the Fitness Zone. The 3,000 square foot fitness center is located in the Student Services Classroom Building. This center includes aerobic machines and free weight equipment while activities include different athletic tournaments and educational programs.

HONOR SOCIETIES

UHCL's honor societies recognize students' academic excellence and achievement. UHCL honor societies are affiliated with national societies, and invite students to membership based on the nationally recognized standards of their chartering organization. Some societies recognize accomplishments within specific disciplines while Alpha Chi, Phi Kappa Phi and Omicron Delta Kappa honor students from all academic disciplines.

UHCL honor societies are:

Alpha Chi	All Disciplines
Alpha Kappa Delta	Sociology
Alpha Iota (local)	Legal Studies
Alpha Phi Sigma	Criminology
Beta Alpha Psi	Accounting
Beta Gamma Sigma	All Business Disciplines
Financial Management Honor Society	Finance
Kappa Delta Pi	Education
Omicron Delta Kappa	Leadership
Phi Alpha Delta	Pre-Law
Phi Alpha Theta	History
Phi Kappa Phi	All Disciplines
Pi Alpha Alpha	Public Affairs
Psi Chi	Psychology
Sigma Iota Epsilon	Management
Sigma Tau Delta	Literature

STUDENT PUBLICATIONS

Students enrolled in Newspaper Publication and Magazine Publication classes publish the student newspaper and magazine out of the Office of Student Publications. The student newspaper, *The Signal*, is published throughout the fall and spring semesters to provide news, feature, entertainment and opinion pieces concerning university events and issues. The newspaper serves as a public forum and encourages students, faculty and staff to submit story ideas and comments. The university's literary art magazine, *Bayousphere*, is produced during the spring semester and published in the fall. The magazine accepts works of fiction, non-fiction, photography, poetry and digital media from students, faculty, staff and members of the community. Both publications have received numerous awards in state and national collegiate competitions from the Texas Intercollegiate Press Association and the Columbia Scholastic Press Association.

WRITING CENTER

The Writing Center, located in SSB 2105, is an instructional facility designed to assist the university community with writing skills. Peer tutors are trained to work with writers by teaching a range of strategies for understanding assignments, planning texts, organizing discussions, writing strong arguments, revising for meaning, learning documentation styles, and developing editing skills. Tutors use collaborative techniques

to explore with writers the requirements and possibilities of academic discourse. The Writing Center also offers COLT, an online tutoring service with phone chat, IM chat, and e-mail response options for currently registered students. For more information, please contact the Writing Center at 281-283-2910 or writingcenter@uhcl.edu.



With a multitude of degree plans offered, UHCL is sure fit for anyone.



GENERAL PROGRAM REQUIREMENTS

- Degrees Offered
- Enrollment and Grading Policies
- University Graduate Degree Requirements

DEGREES OFFERED

The University of Houston-Clear Lake (UHCL) is authorized by the Texas Higher Education Coordinating Board to confer six degrees in 45 graduate majors.

- Graduate Degrees Conferred
- Doctor of Education (EdD)
- Master of Arts (MA)
- Master of Business Administration (MBA)
- Master of Healthcare Administration (MHA)
- Master of Healthcare Administration/Master of Business Administration (MHA/MBA)
- Master of Science (MS)

GRADUATE MAJORS OFFERED

School of Business

- Accounting (MS)
- Business Administration (MBA)
- Environmental Management (MS)
- Finance (MS)
- Healthcare Administration (MHA)
- Healthcare Administration/Business Administration (MHA/MBA)
- Human Resource Management (MA)
- Management Information Systems (MS)
- Professional Accounting (MS)

School of Education

- Counseling (MS)
- Curriculum and Instruction (MS)
- Early Childhood Education (MS)
- Educational Leadership (EdD)
- Educational Management (MS)
- Instructional Technology (MS)
- Multicultural Studies in Education (MS)
- Reading (MS)
- School Library and Information Science (MS)

School of Human Sciences and Humanities

- Behavior Analysis (MA)
- Behavioral Sciences (MA)
- Clinical Psychology (MA)
- Criminology (MA)
- Cross-Cultural Studies (MA)
- Digital Media Studies (MA)
- Family Therapy (MA)
- Fitness and Human Performance (MA)
- History (MA)
- Humanities (MA)
- Literature (MA)
- Psychology (MA)
- School Psychology (MA)
- Sociology (MA)

School of Science and Computer Engineering

- Biological Sciences (MS)
- Biotechnology (MS)
- Chemistry (MS)
- Computer Science (MS)
- Computer Engineering (MS)
- Computer Information Systems (MS)
- Engineering Management (MS)
- Environmental Science (MS)
- Mathematical Sciences (MS)
- Physics (MS)
- Software Engineering (MS)
- Statistics (MS)
- Systems Engineering (MS)

STUDENT RESPONSIBILITY

Students are responsible for knowing their 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.

ENROLLMENT AND GRADING 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 12 hours for graduate students during the fall and spring semesters. For the summer semester, the limit is 9 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 towards full-time enrollment for F and J student visa holders.

FULL-TIME/PART-TIME STATUS COURSE LOAD

Term	Full-Time	¾ Time	½ Time
Fall and Spring Semesters	9 hours	6 hours	3 hours
Nine-Week Summer Sessions	5 hours	3-4 hours	2 hours
Five-Week Summer Sessions	3 hours	2 hours	1 hour

When enrolled in a cooperative education course, students will be considered full-time for purposes of enrollment verification. Students enrolled in at least three hours of master's option course work will be considered full-time for the purposes of enrollment verification for loan deferment.

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 advisor 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.

Drop/Withdrawal Mark

Students who drop classes or withdraw from all classes by the deadline date 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 marks imply no evaluation of students' performance prior to drop/withdrawal. Students may retain auditing privileges with the instructor's consent.

Student-Initiated Withdrawals

Students' applications for official withdrawal from courses or from the university must be made to the Office of Academic Records or through E-Services prior to the deadline stated in the academic calendar. Withdrawals in writing can be made by mail or by fax to 281-283-2530 and are effective on the date of receipt. 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.

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.

DESCRIPTIONS OF LETTER GRADES

- Performance in the range of "A" represents exceptional scholarship and intellectual initiative in accomplishing graduate level course goals and objectives.
- Performance in the range of "B" represents competent achievement in accomplishing graduate level course goals and objectives.

- Performance in the range of "C" represents the minimally acceptable performance in accomplishing graduate level course goals and objectives.
- A "D" or "F" performance represents unsatisfactory or below minimally acceptable performance in accomplishing graduate level course goals and objectives.

Grades of "+" or "-" are refinements of the letter grades, represent grade point variations and may be used at the discretion of the instructor.

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 master's option course work

GRADE POINT AVERAGE (GPA)

This average is computed by multiplying the semester hours of each course attempted by the grade points earned in the particular course and then dividing the total number of grade points by the total number of hours attempted excluding those hours for which grades are shown with asterisk (*) above. GPAs will round at three decimals.

Cumulative GPA is based on the grade points earned since admission to UHCL or since the last UHCL degree awarded. All UHCL undergraduate and graduate courses taken by graduate students are calculated in the graduate GPA. Courses transferred in are not included in the UHCL GPA.

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 "I" 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 "I" was assigned. Failure to resolve an "I" 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 "I" 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

Master's Thesis, Project and Residency require continuous enrollment. A grade of In Progress ("IP") will be recorded until final grade assignment for completion of the master's option. Not all internships require continuous enrollment but those that do are eligible for "IP" grades. The "IP" grade will not automatically convert to "F" if not resolved within a specified time. At the time final grades for master's option course work are assigned, outstanding "IP" grades will be converted to Credit ("CR") or No-Credit ("NC"). If the final grades are "C" or better, six hours of the letter grade assigned will be recorded and the remaining "IP" grades will be converted to "CR." If the final grades are "C-" or below, six hours of the letter grade assigned will be recorded and the remaining "IP" grades will be converted to "NC." Faculty, with the approval of the associate dean, may change an additional three hours of "IP" to a final letter grade. Students enrolled in master's option course work are automatically enrolled in the same course each fall and spring semester until a final grade is assigned (see Automatic Enrollment). Students must complete an application for graduation by the stated deadline during their last semester of enrollment. Failure to do so will result in a delay of graduation to a future semester.

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 Academic Records 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. When the grade change is processed, students will be notified by mail by the Office of Academic Records. 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

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. 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.

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.

Graduate Academic Status

Graduate students must maintain a cumulative GPA of 3.000 or better in course work at UHCL. Each school may establish standards beyond the university's minimum cumulative GPA requirement. A minimum of 3.000 cumulative GPA is required to graduate. The last attempt of all course work taken as a graduate student 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

Graduate students whose cumulative GPA falls below 3.000 will be placed on academic probation. Graduate students who are on academic probation must earn a minimum 3.000 semester GPA on course work each subsequent semester until the grade point deficiency is removed. 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 Suspension

Graduate students who are on academic probation and earn less than a minimum 3.000 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 school 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 NONDEGREGR] petition the Office of the Provost. At the time of application for reinstatement from academic suspension, students desiring to change their major from one school to another must submit a Request for Academic Record Change (ARC) form along with a petition for reinstatement to the associate dean of the school 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 graduate degree requirements. Such courses may only be used with special permission from the associate dean and 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. Petitions for reinstatement must be submitted by the following dates:

Summer Semester	April 1
Fall Semester	July 1
Spring Semester	November 1

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 3.000 for graduates. A student who is reinstated must undergo mandatory advising 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 Life Policy Handbook.

GRADUATE STANDING

Graduate standing is given to those students who have earned a bachelor's degree and have indicated their intent to study at the graduate level or pursue teacher certification at UHCL by submitting a graduate studies application.

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.

GRADUATE COURSES

Graduate courses are defined as those courses with course numbers in the 5000, 6000, 7000, and 8000 range. 7000 and 8000 range courses are restricted to doctoral students.

Graduate courses taken as an undergraduate will only calculate in the undergraduate hours earned and in the undergraduate GPA. Undergraduate and post-baccalaureate non-degree-seeking students are not eligible to enroll in graduate courses.

ACADEMIC APPEALS

Academic appeals include those appeals related to grades and academic programs or degree requirements. Specific instructions are provided below for each type of academic appeal. 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.

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 school 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.

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 school 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.

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 Honesty 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.
 - f. Providing information:
 - g. Providing answers for any assigned work or examination when not specifically authorized by the instructor to do so.
 - h. Informing any person or persons of the contents of any examination prior to the time the examination is given.
2. 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.
- 3. 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.
- 4. 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. Failure to report - 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 Student Life Policies in hard copy and on-line at the UHCL Web site and in the Faculty Handbook on-line at the UHCL Web site. Further policies governing alteration or misuse of university documents or furnishing false information to university officials may also be found in Student Life Policies or online at the UHCL Web site.

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

UHCL has established minimum requirements for graduate course work leading to the Doctor of Education, Master of Arts, Master of Science, Master of Business Administration, Master of Healthcare Administration and Master of Healthcare Administration/Master of Business Administration degrees. All graduate students must have an approved CPS that fulfills all university requirements and all degree program requirements. The university requirements for the doctoral degree are:

- Fulfillment of specific degree program requirements. These requirements are reported in the school section of this catalog.
- At least 69 hours must be selected from courses numbered 7000 or higher.
- 12 hours of dissertation are required.
- The Residency Requirement may be met by taking 9 or more hours in each of two consecutive long terms, in each of three consecutive summer terms, or in each of two consecutive summer terms and in one of the two intervening long terms.

Please see the School of Education section of this catalog for the details of the courses required.

The university requirements for the master's degree are:

- Fulfillment of specific degree program requirements. These requirements are reported in the school section of this catalog.
- At least 30 hours must be selected from courses numbered 5000 or higher.
- At least 24 of the final 30 semester hours must be taken in residence.
- Completion of three or more hours of one of the master's degree option. The individual schools establish the options to be available and set the number of hours in each option.
- Schools may allow no more than 25% of courses at the 3000 or 4000 level, exclusive of any foundation courses, or equivalent to apply toward the total number of hours required for a master's degree.
- A minimum of a 3.000 cumulative grade point average on course work taken at UHCL. No grade lower than a "C" is acceptable towards a graduate degree.
- Correspondence and non-resident credit may not be applied toward a graduate degree.
- Successful completion of at least one of the following requirements: comprehensive examination; thesis, project, residency or internship; or extended course work with a capstone course of a comprehensive nature.

MASTER'S DEGREE OPTIONS

All master's option course work requires continuous enrollment until completion. See Automatic Enrollment - Master's Option Course Work in the catalog. Students enrolled in at least three hours of master's option course work, excluding the capstone course, will be considered full time for purposes of enrollment verification for loan deferment, but not for purposes of determining eligibility for veteran's benefits or financial aid. This deferment is limited to no more than three long semesters of enrollment. Students who plan to graduate at the end of their last semester of Master's Option enrollment must file an application to graduate by the stated deadlines.

Option 1: Master's Thesis

The Master's Thesis requires continuous registration until completion, for a minimum of six hours; some programs may require more than six hours. If a student does not maintain continuous registration in the master's thesis, previously accumulated master's thesis credits will not count toward the master's degree. A grade of In Progress ("IP") will be recorded on the transcript until completion. For details, please consult the appropriate academic advisor. All students registering for thesis must submit a copy of both the "Steps in Completing a Thesis" and the "Thesis Preparation Guide." These may be obtained from the associate dean of their school. Individual schools may provide additional information regarding specific school requirements.

Objective

The master's thesis must present evidence of:

- A thorough review and understanding of the literature
- The ability to do independent research
- The preparation of a manuscript that conforms to generally recognized standards of scientific and scholarly writing in the discipline. The dean of each school will provide, on request, a copy of the procedures for registering for thesis work, selecting an advisor and thesis committee, writing a proposal in advance of starting work, preparing the manuscript, presenting the thesis for approval and binding copies of the completed thesis.

The thesis will require an abstract of 150 words or less. Students should submit three unbound copies, the fee for binding the thesis and the fee for its placement in University Microfilms Library to the Director of the Library by the deadline specified in the academic calendar. At that time, students may elect to copyright the thesis.

Option 2: Master's Project

The master's project requires continuous registration until completion, for a minimum of six hours; some programs may require more than six hours. If a student does not maintain continuous registration in the master's project, previously accumulated master's project credits will not count toward the master's degree. A grade of In Progress ("IP") will be recorded on the transcript until completion.

Objective

The master's project may be widely and variously conceived but must present evidence of:

- A careful review and understanding of the relevant literature and other knowledgeable sources
- The ability to do independent scholarship and/or field study: to carry out and/or assess a major practical application of theory or methods from the discipline
- The preparation of a report and other materials, as appropriate, which conform to recognized professional and scholarly standards. The dean of the school will provide a copy of the procedures for registering for project work, selecting an advisor, preparing the proposal and the report and presenting it for approval

Option 3: Master's Residency or Internship

- Graduate Residency: Requires continuous registration until at least six semester hours of residency have been completed; some programs may require more than 6 hours. A grade of In Progress ("IP") will be recorded on the transcript until completion. For details, please consult the appropriate academic advisor.
- Graduate Internship: Depending upon the program, a minimum of three semester hours will be required. A grade of In Progress ("IP") may be assigned for internship programs. For details, please consult the appropriate academic advisor.

Objective

The master's internship and residency are designed to provide important learning experiences complementary to the academic preparation gained in course work. In general, the residency must represent application of master's level instruction to materials or situations that are new to students. The internship should provide an opportunity for students to evaluate the relevance of theoretical or academic perspectives to the work environment.

Option 4: Extended Course Work

The extended course work option requires at least six semester hours of course work in addition to the minimum of 30 semester hours required for graduation. Option 4 also requires successful completion of a capstone course or a comprehensive examination.

Appeals

Students may appeal previous academic actions or decision by faculty members regarding master's degree options 1, 2 or 3 by following the academic appeals process.

Requesting and Repeating Comprehensive Examination

Students who have selected degree programs requiring comprehensive examinations are responsible for requesting the examinations in writing from the dean of the school at least ten days prior to the examination. Associate deans and/or chairpersons of students' degree committees offer guidance concerning students' readiness for the examination and the form of the request. Students who have been reported to a dean for failing a comprehensive examination may request a second comprehensive examination no sooner than one long semester after the semester in which the examination was failed. Normally, comprehensive examinations will not be administered more than two times. Appeals to this policy will follow the normal academic appeals process.

TIME LIMITATION ON PAST COURSE WORK

Courses completed more than five years prior to the most current admission to graduate study at UHCL may not be counted toward fulfillment of the required number of hours unless approval is granted by the appropriate dean.

LIMITATION ON COURSES IN THE SCHOOL OF BUSINESS FOR GRADUATE STUDENTS

Degree-seeking graduate students outside the School of Business must limit their programs of study to less than 50 percent of their course work in the School of Business.

ADDITIONAL MASTER'S DEGREES

Students possessing a master's degree from UHCL or another accredited college or university may earn an additional master's degree in a different degree program by satisfying the general requirements for the master's degree. Under certain circumstances, credit from one UHCL graduate degree may be applied towards a second UHCL graduate degree. The following provisions apply only to masters programs of 36 hours or more. Students should be aware that a course taken more than five years earlier cannot be applied towards a degree, unless approval is granted by the dean of the school. With respect to the provisions which follow, schools choosing to offer additional masters degrees reserve the right to set additional requirements for degrees awarded by that school including the right to not offer such degrees. Students should be aware that the faculty of the individual schools as set forth in the schools' procedures determine the approved Candidate Plan of Study in all cases of graduate work.

SIMULTANEOUS UHCL MASTER'S DEGREES

Students pursuing two master's degrees simultaneously may earn both degrees by completion of a special "Simultaneous Master's Degree CPS" subject to the following provisions:

- Fulfillment of all specific degree program requirements in each degree including a separate master's degree option (i.e. comprehensive exam, thesis, residency, internship or extended course work with a capstone course or a comprehensive exam) for each degree. These requirements are reported in the school section of this catalog.
- At least 60 hours must be selected from the 5000 or 6000 levels.
- At least 30 unique hours must be selected from courses from the 5000 and 6000 level or their equivalents in each degree.
- At least 48 of the final 60 semester hours must be taken in residence.
- Schools may allow not more than 25 percent of courses at the 3000 or 4000 level, exclusive of any foundation courses, or equivalent courses, to apply toward the total number of hours required for each of the master's degrees.

- A minimum of a 3.000 cumulative grade point average on course work taken at UHCL in each degree. No grade lower than a "C" is acceptable towards a graduate degree.
 - The faculty of the program areas will determine the appropriate CPS.
- Note: Students with the Simultaneous Master's Degree CPS, who wish to complete only one of the two degrees, must follow the basic university graduate degree requirements for that degree.

NON-SIMULTANEOUS UHCL MASTER'S DEGREES

Students pursuing an additional master's degree may earn the additional degree by completion of a special "Additional Master's Degree CPS" subject to the following provisions:

- Fulfillment of all specific degree program requirements in each degree including a separate master's degree option (i.e. comprehensive exam, thesis, residency, internship or extended course work with a capstone course or a comprehensive exam) for each degree. These requirements are reported in the school section of this catalog.
- At least 24 unique hours must be selected from courses from the 5000 and 6000 level or their equivalents for the additional degree.
- At least 24 semester hours must be taken in residence.
- Schools may allow not more than 25 percent of courses at the 3000 or 4000 level, exclusive of any foundation courses or equivalent courses, to apply toward the total number of hours required for the additional master's degree.
- A minimum of a 3.000 cumulative grade point average on course work taken at UHCL in the additional degree. No grade lower than a "C" is acceptable toward a graduate degree.
- The faculty of the program areas will determine the appropriate CPS.

DUAL GRADUATE DEGREE POLICY

(Simultaneous, Non-Simultaneous and Dual Degrees)

The University of Houston-Clear Lake has approved a policy that permits schools to apply graduate credit earned at UHCL toward more than one UHCL graduate degree. Specific requirements and approvals are completed by the individual school.

GRADUATION UNDER A PARTICULAR CATALOG

As long as students maintain continuous enrollment, they are entitled to graduate under the degree provisions in effect at the time the Candidate Plan of Study (CPS) is filed. Degree-seeking students should file a CPS during the first semester of enrollment at UHCL. Filing of the CPS is completed when it is signed and dated by the appropriate dean and is effected on that date. Failure to enroll in and satisfactorily complete at least one course in a 12-month period shall break continuous enrollment for the purpose of the CPS. The dean may require revision of the CPS of students who have not

maintained continuous enrollment. The revisions may bring the plan into conformance with provisions of any catalog issued after that in effect when the plan was filed or last revised. Students may, with the approval of their advisor or dean, amend their CPS to comply with the provisions of catalogs issued after the initial filing of the CPS. Degree requirements must be completed within five years from the effective date of the CPS. Exceptions may be granted by the appropriate dean. Graduate students exceeding the time limit will automatically come under the provisions of a more recent catalog, the specific edition to be determined by the dean.

Applying for Graduation

Degree candidates must officially apply for graduation in the Office of Academic Records 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. Students who miss the specified deadline to apply may request to submit a late application for consideration. If approved, there will be a \$20 late fee. 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 of \$65 is required. If students do not graduate at the close of the semester for which they have applied, they will be required to reapply and pay another \$65 fee during the subsequent semester in which they intend to graduate. As there is no graduation ceremony in the summer, students who graduate in August will be eligible to participate in the December ceremony. Diplomas will be mailed to recipients within six weeks after the graduation date. Students who graduate from UHCL must complete a new application and pay \$35 in order to continue taking classes.



*Personal help with admissions, registration, student records and scholarship services
can make dreams of earning an advanced degree a reality.*





Explore your opportunities with Distance Education.



DISTANCE AND OFF-CAMPUS EDUCATION

- General Information
- Course Delivery Formats
- DE Admissions Requirements
- Schedule of Classes
- Registration
- Financial Aid and Scholarships
- Accessible Student Services
- Online Programs and Certificates
- Off-Campus Programs by Locations

GENERAL INFORMATION

In an attempt to meet this need for flexibility, the university offers classes in a variety of formats and in several convenient locations. Students can opt to complete a master's degree 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.

Distance 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

Distance Education (DE) 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 or even complete entire certificates or graduate degree programs through Distance Education. Classes offered through DE 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 instructor 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. 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 students have the opportunity to complete degrees close to where they live or work. Courses at our off-campus learning centers may be offered face-to-face in a traditional classroom, online 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.

DE 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. With careful planning and close collaboration with the DE Academic Advisors, students can complete their master's degree in two to three years. The DE Academic Advisors are available to assist students with the admissions process.

SCHEDULE OF CLASSES

Each semester, students have the ability to review course offerings via the online search engine on the UHCL Web site. See class schedule available online at www.uhcl.edu. To search for distance education courses, select your location of choice and or instruction mode of delivery then search. The distance education class schedule can also be found at the DE Web site at www.uhcl.edu/disted.

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 that 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 on campus students. All forms, complete list of scholarships, timelines and instructions are available online at the Financial Aid Web site. 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.

ACCESSIBLE STUDENT SERVICES

The DE office has developed unique advising procedures to best serve the needs of its students. Advisors are available to assist students via face-to-face appointments, telephone or e-mail. Academic advising is available at each of our off-campus locations. To schedule an appointment, please call 281-283-3031.

UHCL also provides assistance with the delivery of student services to off-campus and online students, such as:

- Student photo IDs available at off-campus locations
- Academic advising for students in online programs
- Career exploration
- Online writing tutors
- Online Bookstore
- Online Course Support
- Online study skills assessment
- Live chat services with Student Assistance Center (SAC)
- Online student news publication THE SIGNAL
- Intercultural & International Student Services (IISS) online resources such as the International Student Handbook
- Disability services available online and off-campus
- Virtual Library services

Additionally, UHCL E-Mail 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 E-Mail accounts. It is the student's responsibility to check their accounts regularly.

ONLINE PROGRAMS AND CERTIFICATES

The following degree programs can be completed entirely online:

- Master of Science in Business Administration
- Master of Science in Engineering Management
- Master of Science in Finance
- Master of Arts in Human Resource Management
- Master of Science in Instructional Technology
- Master of Science in Software Engineering

The following Technology Application Certificates for State of Texas Teachers can be completed entirely online:

- Technology Applications (EC-12) State Certification
- Technology Applications (8-12) State Certification
- Master Technology Teacher State Certification

UHCL also offers Professional Development Instructional Technology Certificates. All course work completed for any of these certificates may be applied toward the MS in Instructional Technology degree:

- Online Distance Educator Professional Development Certificate
- Performance Technology Certificate
- Technology Applications (EC-8) Professional Development

UHCL Engineering Certificates:

- Software Engineering Certificate
- System Engineering Certificate

Additional UHCL Certificates:

- Environmental Management
- Fitness and Human Performance

OFF-CAMPUS PROGRAMS BY LOCATIONS

Distance education off-campus sites in the greater Houston area are also made possible by the collaborative agreements with other educational institutions and school districts. Currently, UHCL provides courses through distance education at four ISDs (Alief, Clear Creek, Dickinson, Pasadena, and Spring Branch) and two community colleges (Alvin and San Jacinto -North).

Alief ISD at Taylor High School

7555 Howell Sugar Land Rd.

Houston, TX 77083

Programs offered:

Master of Science in Educational Management

Certificates in Principalship & PDAS

Master of Science in Counseling with School

Counselor Certification

UHCL Pearland Campus

1200 Pearland Parkway

Pearland, TX 77581

Programs offered:

Master of Science in Counseling (Spring 2011 start)

Master of Science in Educational Management

Master of Arts in Behavioral Sciences-General

Master of Arts in Criminology

Master of Arts in Psychology

San Jacinto College-North

5800 Uvalde

Houston, TX 77049

Programs offered:

Master of Science in Educational Management

Certificates in Principalship & PDAS

Texas Medical Center

2151 West Holcombe

Houston, TX 77030

Programs offered:

Masters Program in Healthcare Administration

Dual Masters Program in Healthcare Administration/Business Administration

UHS Cinco Ranch Center

4242 South Mason Rd.

Katy, TX 77450

Programs offered:

Master of Science in Educational Management

Certificates in Principalship & PDAS

UHS Sugar Land Center

4000 University Blvd.

Sugar Land, TX 77479

Programs offered:

Master of Arts in Psychology



Professor of Marketing, Jean Walker, teaches students the importance of developing a marketing plan for products introduced in the global marketplace.



SCHOOL OF BUSINESS

- Accounting
- Business Administration
 - Environmental Management
 - Finance
 - Human Resource Management
 - International Business
 - Management Information Systems
 - Management of Technology
- Environmental Management
- Finance
- Finance with a concentration in Healthcare Administration
- Healthcare Administration
- Healthcare Administration / Business Administration
- Human Resource Management
- Management Information Systems
- Professional Accounting

The mission of the School of Business (BUS) at the University of Houston-Clear Lake is to provide quality lifelong education at the junior, senior and master's level for the Houston/Galveston metropolitan area. Undergraduate business programs primarily serve the region's community college systems by providing transfer students the opportunity to complete a four-year degree. Graduate programs serve both full-time students and working professionals in the region. Instruction is designed for small classes and 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.

	Office	Phone
Office of Academic Advising	Bayou 2111	281-283-3110
Office of the Dean	Bayou 2239	281-283-3100
Web Site	http://bus.uhcl.edu	

The graduate and undergraduate accounting and business administration degrees in the School of Business are accredited by the AACSB International - The Association to Advance Collegiate Schools of Business. The school's graduate degree in Healthcare Administration is accredited by the Commission on Accreditation of Healthcare Management Education. A variety of undergraduate and graduate degrees are offered in the business and public administration disciplines. Students are eligible to apply for jobs through the Cooperative Education Program, which is designed to prepare students for careers by integrating paid work experience with academic study.

GRADUATE REQUIREMENTS FOR ALL BUSINESS AND PUBLIC ADMINISTRATION DEGREES

GENERAL DEGREE REQUIREMENTS

Students applying for one of the School of Business graduate plans must have a bachelor's degree. Applicants whose undergraduate degrees are in fields other than the graduate degree they are seeking, or those with business degrees from schools lacking

AACSB International accreditation, may have graduate level foundation courses added to their plan requirements. All 5000- and 6000-level courses, including foundation courses, are reserved exclusively for graduate degree-seeking students.

All graduate plans require the completion of a minimum of 36 hours, including a required capstone course, which is designated in the plan listing.

Students seeking a master of science (MS) degree in Accounting, Finance, Management Information Systems, or Environmental Management, the master of business administration (MBA) degree, the master of healthcare administration (MHA), the MHA/MBA, or the master of arts (MA) in Human Resource Management are required to submit applications, transcripts for all prior college coursework, and GMAT scores in accordance with these deadlines:

Fall Enrollment	August 1
Spring Enrollment	December 1
Summer Enrollment	May 1

Deadlines for international students are two months earlier (June 1, October 1 and March 1). Prior to consideration for admission, applicants must submit transcripts.

Students who lack records, transcripts or GMAT scores will not be considered for admission or permitted to register.

In addition, graduate courses taken outside the School of Business, or courses taken in a non-degree-seeking or post-baccalaureate status prior to acceptance into the graduate plan, may not count toward degree credit. Students desiring to apply such courses must petition the associate dean or director of the MBA, depending upon degree objective.

The degrees in business administration prepare students to assume administrative, managerial and professional positions in their respective fields. Graduate degrees in business administration include the master of science degree in Accounting, the master of science degree in Finance, the master of arts degree in Human Resources Management, the master of science degree in Management Information Systems and the master of business administration (MBA) degree.

Pre-Foundation Requirements

In order to function effectively, it is assumed that all students will have completed three hours of College Algebra (evidenced on a college transcript) and have computer skills in the use of database/spreadsheet software, creation of professional looking documents, and exploration of the Internet for business purposes.

Foundation Requirements

Foundation requirements are graduate-level courses designed for BUS graduate students whose prior academic study lacked adequate coverage of specific basic principles critical for advanced studies in business. These courses provide the business background necessary for successful pursuit of the student's chosen plan. Foundation courses eliminate the need for a student to complete undergraduate business courses prior to acceptance into a graduate field of study in the School of Business.

Foundation courses may be waived by presenting equivalent courses taken at an accredited university. Equivalent courses must have a grade of C or better. International students should obtain a subject analysis evaluation from Educational Credential Evaluators, Inc. (<http://www.ece.org>) and have the results sent to the School of Business prior to matriculation for foundation courses to be reviewed for possible waiver.

Students are strongly urged to contact their academic advisor before registration to verify which foundation courses may be waived to avoid taking classes unnecessarily. Under no circumstances may any of the foundation courses be used as electives or to satisfy the extended course work requirements under Master's Degree Option 4.

Some or all of the following foundation courses may be required for each of the master's degrees in business administration, depending on the plan and the student's academic history. All of the following foundation courses or their equivalents (with the exception of ISAM 5030) are required for the Masters of Business Administration (MBA) degree:

ACCT 5031	Accounting Concepts for Managers ^{2,3}
DSCI 5031	Business Statistics for Decision-Making ^{2,3}
ECON 5031	Economic Principles
FINC 5031	Financial Analysis & Markets
ISAM 5030	Fundamentals of Business Programming ^{1,3}
MGMT 5032	Human Behavior in Organizations ^{2,3}
MKTG 5031	Marketing Essentials for the 21st Century: Creating Customer Value ²

¹Required of MS in Accounting students with an MIS concentration only.

²Required of MA in Human Resource Management students.

³Required of MS in MIS students.

Students pursuing the master of science degree in Accounting must also meet these requirements or their equivalents:

ACCT 5131	Accounting for Administrative Control
ACCT 5133	Financial Accounting I
ACCT 5134	Financial Accounting II
ACCT 5137	Principles of Auditing
DSCI 5030	Business Calculus

Plan Grade Requirements

A minimum of a 3.000 cumulative grade point average on course work taken at UHCL. No grade lower than a "C" is acceptable toward a graduate degree; this includes foundation work as well as the plan requirements. Grades of "C-" or lower are not acceptable.

PLAN DEGREE REQUIREMENTS

Accounting Plan Requirements

The objective of the master of science degree in Accounting is to provide students with a broad-based background in business, and depth and breadth in accounting. This will provide students with a basis for exercising judgment in accounting-related decisions within administrative, managerial and professional positions and enhance rapid career development. The course of study satisfies the required preparation for the Certified Public Accountant (CPA) examination. In addition, requirements for

other professional certifications may be met within this plan. 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. ACCT 4436 Ethics for Accountants has been approved by TSBPA and satisfies the ethic course requirement.

Students seeking a master of science degree in Accounting must meet the business foundation courses (ACCT 5031, DSCI 5031, ECON 5031, FINC 5031, MGMT 5032 and MKTG 5031) or their equivalents, and the accounting foundation requirements (ACCT 5131, 5133, 5134, 5137) or their equivalents. Students who have not completed a college-level course in either business or applied calculus will have DSCI 5030 added to their plan foundation requirements.

It is anticipated that students with three different academic backgrounds may choose to pursue a master of science degree in Accounting. These differing academic backgrounds are best described as: Category A: No prior academic work in business; Category B: Prior academic work in business, but does not have the equivalent of a major in accounting; Category C: Undergraduate degree in accounting or degree in business with a major in accounting.

The Candidate Plan of Study for all three categories of students will include a minimum of 36 semester hours. Students selecting the master's thesis option will receive six semester hours credit for the thesis. Students in Category A may not elect the thesis option. The availability of the thesis option for Category B students will depend upon their previous academic work in accounting and/or business.

The specific degree requirements vary depending on academic background. The plan requirements are:

Category A

Foundation Requirements as listed above: ACCT 5031, DSCI 5031, ECON 5031, FINC 5031, MGMT 5032, MKTG 5031, ACCT 5131, ACCT 5133, ACCT 5134, ACCT 5137 and DSCI 5030 (if business calculus was not taken previously). Students desiring the Management Information Systems sub-plan must take ISAM 5030 Fundamentals of Business Programming or equivalent. Plan requirements consist of these courses:

ACCT 4436	Business Ethics for Accountants
ACCT 5231	Individual Income Tax
ACCT 5234	Corporate Income Tax
ACCT 5332	Accounting Information Systems
ACCT 5431	Advanced Accounting
ACCT 5432	Accounting for Government & Not-for-Profit
ACCT 6732	Seminar in Auditing Theory & Practice
DSCI 5431	Management Sciences & Operations
ISAM 5330	Management Information Systems
LEGL 5131	Legal Concepts for Business Professionals
MGMT 6731	Strategic Management Seminar (Capstone Course)
BUS	Elective (3 hours)

Course work at the 3000- or 4000-level may not be included.

Category B

The course of study will be designed to meet the student's educational needs in light of previous academic work and career objectives. Students in Category B must meet

requirements of Category A. However, courses taken in a student's previous academic work determined to be equivalent to foundation requirements may result in waiver of foundation requirements. If courses taken in a student's previous academic work are determined to be equivalent to degree requirements, other courses may be substituted with approval. Of the 36 semester hours of plan requirements, Category B students must complete at least 15 semester hours of accounting at the graduate level. Course work at the 3000- or 4000-level may not be included.

Category C

The course of study will be designed to meet the student's educational needs in light of previous academic work and career objectives. Category C students must complete 36 semester hours, which must include at least twelve semester hours of accounting at the graduate level. Course work at the 3000- or 4000-level may not be included.

Accounting Sub-plan in Management Information Systems

Students may choose an information systems sub-plan in their Master of Science Degree in Accounting. These students will be required to take ISAM 5030 Fundamentals of Business Programming (waived for students with six hours of college-level programming) and three of the following five courses:

ACCT 5333	Fundamentals of Database Design & Development
ACCT 5334	Advanced Database Applications Development
ACCT 5335	Information Systems Audit & Security
ACCT 5336	System Analysis & Design
ISAM 5030	Fundamentals of Business Programming

Business Administration (MBA) Plan Requirements

The graduate plan in Business Administration leads to the master of business administration (MBA) degree. The Candidate Plan of Study for the MBA degree will include a minimum of 36 semester hours, plus any required foundation course work.

The plan requirements consist of these courses:

ACCT 5131	Accounting for Administrative Control
BAPA 5131	The Global Environment of Business
DSCI 5431	Management Science & Operations
ECON 5136	Economic Policy & Applications
FINC 5133	Financial Policy
MGMT 5133	Teamwork & Leadership Skills: Theory in Practice
MGMT 6731	Strategic Management Seminar (Capstone Course)
MKTG 5332	Executive Decisions in Marketing

Twelve hours of electives are required. Electives should be selected from courses taught in the School of Business. Students desiring to use their electives in courses taught by other schools in the university must petition the associate dean for approval prior to enrolling. Course work at the 3000- or 4000-level may not be included.

MBA Sub-plans

Students may complete sub-plans (concentrations) within the MBA degree plan. The Candidate Plan of Study for the MBA degree with a sub-plan will contain a minimum of 36 semester hours. In addition to the completion of 24 hours of required MBA

course work, all sub-plans require the completion of 12 semester hours of course work in the concentration.

Environmental Management

For the sub-plan in Environmental Management, students will be required to complete 12 hours as follows:

ENVR 5332	Environmental Law
ENVR 6133	Environmental Risk Management

The other two courses (6 hours) can be chosen from any graduate environmental management course listed in the university catalog.

Finance

For the sub-plan in Finance, students will be required to complete 12 hours as follows:

FINC 5331	Financial Administration Practices
FINC 5332	Structure of Financial Statements
FINC Electives	(6 hours) which may be either a master's thesis or six hours of FINC course work excluding FINC 5031 and 5133

Human Resource Management

For the sub-plan in Human Resource Management, students will be required to complete 12 hours as follows:

HMRS 5131	Human Resource Management Processes
HMRS 5231	Legal Environment of Human Resource Management I
HMRS 5435	Employee Planning, Staffing & Selection

One of the following three courses (3 hours):

HMRS 5433	Compensation and Benefits
HMRS 5531	Training & Development
MGMT 5332	Labor Relations

International Business

For the sub-plan in International Business, students must complete 12 hours in a minimum of three different rubrics. Courses may be selected from the following list:

ACCT 5531	International Accounting
FINC 6531	International Finance
MGMT 6332	International Management
MKTG 5532	International Marketing Strategy

Leadership

The sub-plan in Leadership is designed to allow students the opportunity to develop the skills necessary to lead teams and organizations (public or private) within the context of ever-changing environmental demands. Students must complete 12 hours in the sub-plan, as well as two prerequisites. For the sub-plan in Leadership, students must complete courses in the list below:

Required prerequisites:

MGMT 5032	Human Behavior in Organizations
MGMT 5133	Teamwork and Leadership Skills

Required courses (6 hours):

MGMT 5439	Positive Leadership and Ethical Action
MGMT 6237	Comparative Leadership

Plus 6 hours from the lists below:

List A (must pick at least one from List A):

MGMT 5135	Organizational Transformation, Learning and Design
MGMT 6331	Organizational Change and Development
PSYC 5334	Change and Organizational Development
SOCI 5337	Complex Organizations

List B:

MGMT 5234	Leading Non-Profit Institutions
MGMT 5238	Gender and Diversity Issues in Leadership
MGMT 5434	Negotiation Skills and Strategies
MGMT 5437	International Leadership and Influence
MGMT 5931	Research Topic: Alternative Dispute Resolution
MGMT 5931	Research Topic: Project Management
SOCI 5238	Negotiating Across Cultures
SOCI 5337	Complex Organizations
SOCI 5433	Social Conflict and Mediation
PSYC 5333	Leadership in Organizations

Management Information Systems

For the sub-plan in Management Information Systems, students will be required to take ISAM 5030 Fundamentals of Business Programming (waived for students with six hours of college-level programming) plus 12 hours of graduate level ISAM courses (excluding ISAM 5030).

Management of Technology

For the sub-plan in Management of Technology (MOT), students will complete 12 hours.

MGMT 5636	Management of Technology
MGMT 5638	Managing Technical & Professional People

Two of the following seven courses (6 hours):

HMRS 5131	Human Resource Management Processes
HMRS 5136	Group Processes in Organizations
MGMT 5931	Research Topics in Management (Designated by MOT in the title)
MGMT 6332	International Business Management
SENG 5332	Decision Analysis for Systems Engineering
SENG 5334	Human Factors
SWEN 5230	Software Project Management

Or, students are encouraged to elect courses which will develop their knowledge of a specific science or technology domain such as software engineering, information systems, systems engineering, biotechnology or engineering management. If you want to substitute courses, the faculty coordinating this concentration must approve the 6 elective hours.

Finance Plan Requirements

The Candidate Plan of Study (CPS) for the Master of Science degree in Finance will include up to 18 hours of business foundation course work plus a minimum of 36 semester hours. The plan requirements consist of these courses:

DSCI 5431	Management Science & Operations
ECON 5136	Economic Policy & Applications
FINC 5131	The Financial System
FINC 5133	Financial Policy
FINC 5331	Financial Administration Practices
FINC 5332	Structure of Financial Statements
FINC 6231	Security Analysis
FINC 6531	International Finance
FINC 6731	Seminar in Finance (Capstone course)
BUS Electives (9 hours)	

Course work at the 3000- or 4000-level may not be included. Students selecting master's thesis will receive six semester hours credit for the thesis and will take an additional three hour approved BUS elective.

Concentration in Healthcare Administration

Students may complete a twelve-hour sub-plan in healthcare administration within the MS in Finance. In the graduate course work listed above, FINC 6531 International Finance and electives or Master's Thesis are NOT required for the sub-plan. In their place, the following Healthcare Administration courses are required:

HADM 5233	Financial Management of Healthcare Organizations
HADM 5331	Planning Healthcare Services
HADM 6132	Legal Aspects of Healthcare Systems
HADM 6235	Managed Care

Human Resource Management Plan Requirements

The plan in Human Resource Management leads to the master of arts degree. This plan allows students to prepare for careers in human resource management, personnel administration training and/or human resource planning. The core requirements provide exposure to workforce planning, quality of work life, human resource development and the legal environment of personnel. In addition to any necessary foundation courses, each Candidate Plan of Study requires a minimum of 36 hours, including the master's degree option.

Plan requirements consist of these courses (30 hours):

HMRS 5131	Human Resource Management Processes
HMRS 5231	Legal Environment of Human Resource Management I
HMRS 5433	Compensation and Benefits
HMRS 5435	Employee Planning, Staffing and Selection
HMRS 5437	Human Resource Information Systems
HMRS 5531	Training and Development
HMRS 5931	Project Management in HRM
HMRS 6735	Seminar in Human Resource Management (Capstone course)
MGMT 5133	Teamwork & Leadership Skills: Theory in Practice
MGMT 6331	Organizational Change

Two of the following ten courses (6 hours):

ACCT 5131	Accounting for Administrative Control
ACCT 5531	International Accounting
BAPA 5131	The Global Environment of Business
DSCI 5431	Management Science and Operations
HMRS 6739	Internship in Human Resource Management
INST 5333	Design of Technology-Based Instruction

INST 6337	Motivational Design of Instruction
MGMT 5332	Labor Relations
MGMT 5636	Management of Technology
MGMT 6332	International Management

Management Information Systems (MIS) Plan Requirements

The plan in MIS leads to the master of science degree. The degree coursework prepares students for positions such as system analyst, business application developer, database administrator, web designer, technical support, etc. Students also complete a number of industry-recognized external certifications as part of the coursework requirements.

Plan requirements consist of these courses (30 hours):

ISAM 5330	Management Information Systems
ISAM 5331	Fundamentals of Database Design & Development
ISAM 5334	Application Development ¹
ISAM 5638	Advanced Applications Programming with Java ¹
ISAM 5335	Advanced Applications Programming in Visual Basic
ISAM 5337	Internet Applications Development
ISAM 5338	Advanced Internet Applications Development
ISAM 5339	Fundamentals of Computer Networking
ISAM 5632	Advanced Database Applications Development
ISAM 5635	Systems Analysis & Design
ISAM 5636	Advanced Computer Networking

¹Students can take either ISAM 5334 or ISAM 5638.

Elective Requirements (6 hours)

ISAM Elective	(3 hours) excluding ISAM 5030
General Elective	(3 hours) excluding foundation requirements

Course work at the 3000- or 4000-level may not be included.

Management Information Systems (MIS) Certificate Program Requirements

Five certificate programs are available in Management Information Systems. These certificates are designed for professionals in the aerospace, IT and related industries, who want to (1) refine their IT skills, (2) expand their IT skills, (3) refine/enhance their skills but don't want to pursue a master's degree and (4) refine/expand their IT skills without going for another master's degree.

Certificates can be earned as part of a master's degree. Students earning certificates without being enrolled in a master's degree may request permission to apply certificate courses to a degree program at a later date. Students earning certificates must officially apply to receive their certificates in the Office of Academic Records within the first three weeks of the semester in which they are enrolled in their final certificate course, but no later than the date specified in the academic calendar for applying for graduation.

All graduate grading standards apply to students enrolled in certificate programs. Students without 6 hours of college level programming must take ISAM 5030 in addition to the requirements stated below.

Business Applications Development

Four of the following six courses (12 hours):

ISAM 5334	Application Development
ISAM 5335	Advanced Applications Programming with Visual Basic
ISAM 5337	Internet Applications Development
ISAM 5338	Advanced Internet Applications Development
ISAM 5638	Advanced Applications Programming with Java
ISAM 5931	Research Topics in MIS

Business Computer Networking and Security

Four of the following five courses (12 hours):

ISAM 5339	Fundamentals of Computer Networking
ISAM 5439	Computer Network Security
ISAM 5636	Advanced Computer Networking
ISAM 5731	Information Systems Audit & Security
ISAM 5931	Wireless Computer Networking

Business Database Development and Administration

Four of the following six courses (12 hours):

ISAM 5331	Fundamentals of Database Design & Development
ISAM 5332	Data Warehousing & Data Mining
ISAM 5632	Advanced Database Applications Development
ISAM 5633	Oracle Database Administration
ISAM 5639	SQL Server Database Administration
ISAM 5931	Research Topics in MIS

Information Systems Management

Four of the following six courses (12 hours):

ISAM 5330	Management Information Systems
ISAM 5331	Fundamentals of Database Design & Development
ISAM 5635	Systems Analysis & Design
ISAM 5637	Information Systems Project Management
ISAM 5931	IT Systems Management
ISAM 5931	Research Topics in MIS

Information Technology

Any four MIS required or elective courses as long as their pre-requisites are satisfied.

HEALTHCARE ADMINISTRATION AND ENVIRONMENTAL MANAGEMENT

GENERAL DEGREE REQUIREMENTS

All graduate degrees require the completion of one of the Master's Options 1, 2, 3 or 4. In plans where Option 4: Extended Course Work is used, the required capstone course is designated in the plan listing.

Graduate Candidate Plans of Study must contain no more than 50 percent of their course credit hours from the business fields of accounting, BAPA, decision sciences, economics, finance, management, information systems, marketing and decision sciences. Under no circumstances may any of the business foundation courses be used as electives or to satisfy the extended course work requirements under Master's Degree Option 4.

Plan Grade Requirements

A minimum of a 3.000 cumulative grade point average on course work taken at UHCL. No grade lower than a "C" is acceptable toward a graduate degree; this includes foundation work as well as the plan requirements. Grades of "C-" or lower are not acceptable.

Environmental Management

The plan in Environmental Management leads to the master of science degree. The graduate degree in Environmental Management requires a minimum of 36 hours including the master's degree option. Depending on academic background, additional course work in economics, chemistry and statistics may be required.

Foundation Requirements (or equivalent) are:

DSCI 5031	Business Statistics for Decision-Making
ECON 5031	Economic Principles

6 hours of freshman/sophomore chemistry

Plan requirements consist of these courses (12 hours):

ENVR 5332	Environmental Law
ENVR 5533	Pollution Control Technology
ENVR 6132	Environmental Impact Assessment (Capstone course)
PPRM 5131	The Study of Administration

Two of the following seven courses (6 hours):

BAPA 5131	The Global Environment of Business
MGMT 5032	Human Behavior in Organizations
MGMT 5133	Teamwork & Leadership Skills: Theory in Practice
MGMT 5636	Management of Technology
MGMT 5638	Managing Technical & Professional People
MGMT 6237	Comparative Leadership
MGMT 6331	Organizational Development

The remaining 18 hours of the degree requirements will be chosen in consultation with a faculty advisor to fit the career interests of the students. Course work at the 3000- or 4000-level may not be included. Healthcare Administration

The graduate plan in Healthcare Administration leads to the Master of Healthcare Administration degree (MHA). In addition to the grade point average and GMAT requirements, entrance into this plan also requires the submission of a résumé, three letters of recommendation, one writing sample, and a statement of career goals. All materials must be received by the application deadline so that the applicant can be considered for admission. Only completed applications will be considered. The résumé, three letters of recommendation, writing sample, and statement of career goals should be sent to the Office of Admissions, University of Houston-Clear Lake, 2700 Bay Area Blvd., Houston, TX 77058-1098.

Foundation requirements are:

DSCI 5031	Business Statistics for Decision-Making
HADM 5032	Leadership & Organizations in Healthcare Services
HADM 5333	Healthcare Economics
MGMT 5032	Human Behavior in Organizations
MKTG 5031	Marketing Essentials for the 21st Century: Creating Customer Value

Plan requirements consist of these courses:

HADM 5131	Healthcare Human Resource Management
HADM 5132	Managerial Epidemiology & Health Policy
HADM 5232	Financial Management of Healthcare Organizations I
HADM 5233	Financial Management of Healthcare Organizations II
HADM 5331	Planning Healthcare Services
HADM 5431	Healthcare Information Systems
HADM 5531	Group Practice Management ¹
HADM 5731	Organizational Change & Quality Improvement in Healthcare
HADM 6132	Legal Aspects of Healthcare Systems
HADM 6235	Managed Care
HADM 6236	Hospital Operations ¹
HADM 6738	Seminar in Healthcare Policy & Leadership

Electives: HADM 6519, 6 hour Residency plus one 3-hr graduate general elective OR 9 hrs graduate general elective approved by Director. No more than 3 hours of internship credit can be applied toward degree.

Healthcare Administration/Business Administration

The joint degree in Healthcare Administration and Business Administration leads to the Master of Healthcare Administration/Master of Business Administration degree (MHA/MBA). In addition to the grade-point average and GMAT requirements, entrance into this plan also requires the submission of a résumé, three letters of recommendation, one writing sample, and a statement of career goals. All materials must be received by the application deadline so that the applicant can be considered for admission. Only completed applications will be considered. The résumé, three letters of recommendation, writing sample and statement of career goals should be sent to the Office of Admissions, University of Houston-Clear Lake, 2700 Bay Area Blvd, Houston, TX 77058-1098.

Foundation requirements are:

ACCT 5031	Accounting Concepts for Managers
DSCI 5031	Business Statistics for Decision-Making
ECON 5031	Economic Principles
FINC 5031	Financial Analysis & Markets
HADM 5032	Leadership & Organizations in Healthcare Services
HADM 5131	Healthcare Human Resource Management
MGMT 5032	Human Behavior in Organizations
MKTG 5031	Marketing Essentials for the 21st Century: Creating Customer Value

MHA plan requirements consist of these courses (30 hours):

HADM 5132	Managerial Epidemiology & Health Policy
HADM 5233	Financial Management of Healthcare Organizations II
HADM 5331	Planning Healthcare Services
HADM 5333	Healthcare Economics
HADM 5431	Healthcare Information Systems
HADM 6132	Legal Aspects of Healthcare Systems
HADM 6235	Managed Care
HADM 6738	Seminar in Healthcare Policy & Leadership
HADM Elective (3 hours)	To be selected from: HADM 5531 Group Practice Mgmt, OR HADM 6236 Hospital Operations
Graduate General Elective (3 hours)	

MHA Practicum Training (6-7 hours)¹:

Option 1: HADM 6519 plus HADM 6539 (2 semesters) Graduate Residency (12 months)

Option 2: HADM 6939 Master's Thesis Research (2 semesters)

Option 3: HADM 5332 Evaluation of Health Services, followed by HADM 6739 Graduate Internship in Healthcare Administration.

MBA plan requirements consist of these courses (24 hours):

ACCT 5131	Accounting for Administrative Control
BAPA 5131	Global Environment of Business
DSCI 5431	Management Science & Operations
ECON 5136	Economic Policy & Applications
FINC 5133	Financial Policy
MGMT 5133	Teamwork & Leadership Skills
MGMT 6731	Strategic Management Seminar (Capstone course)
MKTG 5332	Executive Decisions in Marketing

¹There are three options for the final six or seven hours of degree requirements. Students are expected to fulfill Option 1. Options 2 and 3 allow alternatives for students who already have extensive administrative healthcare work experience. Approval of the Director of Healthcare Administration is required. These options may be started after the completion of 15 hours of course work.

SCHOOL OF BUSINESS COURSES

ACCOUNTING COURSES

ACCT 5031: Accounting Concepts for Managers

For students with no previous training in accounting. Accounting concepts and principles for interpreting and using financial information in business decision making. May not be taken as graduate elective credit by any BUS student.

ACCT 5131: Accounting for Administrative Control

Cost concepts and behavior, performance measurement and analytical uses of accounting data for administrative decisions in merchandising, manufacturing, and service organizations. May not be taken by accounting majors for graduate elective credit.

ACCT 5133: Financial Accounting I

An in-depth study of conceptual and technical aspects of financial accounting. Emphasis is placed on valuation and measurement problems associated with financial statement preparation. May not be taken by accounting majors for graduate elective credit.

Prerequisite: ACCT 5031 or equivalent.

ACCT 5134: Financial Accounting II

Continuation of Financial Accounting I. Emphasis is placed on valuation and measurement problems associated with financial statement preparation. May not be taken by accounting majors for graduate elective credit.

Prerequisite: ACCT 5133 or equivalent in-depth study of conceptual and technical aspects of financial accounting.

ACCT 5136: Financial Accounting III

Continuation of Financial Accounting II. An in-depth study of conceptual and technical aspects of financial accounting.

Prerequisite: ACCT 5134 or equivalent.

ACCT 5137: Principles of Auditing

A study of the auditor's attest function with emphasis on auditing theory and standards, legal and professional responsibilities, ethics, risks and planning considerations. May not be taken by accounting majors for graduate elective credit.

Prerequisites: ACCT 5134 or equivalent.

Corequisite/Prerequisite: ACCT 5332 or equivalent.

ACCT 5231: Individual Income Tax

Principles of federal income tax as applied to individuals; tax consequences of business decisions and accounting procedures.

Prerequisite: Principles of Accounting or equivalent.

ACCT 5234: Corporate Income Tax

Comprehensive examination of federal income tax laws as applied to corporations, including Subchapter S corporations.

Prerequisite: ACCT 5231 or equivalent.

ACCT 5331: Accounting Analysis for Management Decisions

The role of cost systems in aiding short-run and strategic management decisions in manufacturing and service organizations.

Prerequisites: ACCT 5131 and DSCI 5031 or equivalents.

ACCT 5332: Accounting Information Systems

Concept, design and operational relationships of computerized accounting information systems to the flow of a data in business organizations.

Prerequisites: ACCT 5031 and ISAM 5330 or equivalents.

ACCT 5333: Fundamentals of Database Design and Development

Database concepts used in business systems. Applications, advantages and disadvantages of hierarchical, network and relational database systems are presented from a business perspective. (Crosslisted with ISAM 5331.)

Prerequisite: ISAM 3034, or ISAM 5030, or 6 hours of college-level programming.

ACCT 5334: Advanced Database Applications Development

Organization and management of complex business databases and applications such as database design and management, user interface design, application design, database processing and generation of management-oriented reports. Includes numerous hands-on projects using a leading database management system. (Crosslisted with ISAM 5632.)

Prerequisite: ISAM 5030 or 6 hours of college-level course work in computer programming, and ACCT 5333 or equivalent.

ACCT 5335: Information Systems Audit and Security

Audit of financial statements, financial accounting systems, accounting data flows, segregation of duties in computer environment, general and application controls, data security and access controls, dial-up controls, computer security, application change control, audit of computer programs and data files and computer audit trails. (Crosslisted with ISAM 5731.)

Prerequisite: ISAM 5330 or equivalent.

ACCT 5336: Systems Analysis and Design

Systems concepts; systems analysis and design techniques; methods used to analyze information requirements; methods used to design, evaluate and implement information systems; and a class project. (Crosslisted with ISAM 5635.)

Prerequisite: ISAM 3034, ISAM 5030, or 6 hours of programming courses and ACCT 5333 or equivalent.

ACCT 5431: Advanced Accounting

Accounting and reporting of domestic and foreign consolidated corporations and branches, governmental and other not-for-profit entities.

Prerequisite: ACCT 5134 or equivalent.

ACCT 5432: Acct for Government and Not-For-Profit Organizations

The course covers the governmental and not-for-profit environment, fund accounting, budgeting, revenue and expenditure recognition, financial reporting requirements, and current issues.

Prerequisite: ACCT 5134 or equivalent.

ACCT 5531: International Accounting

Analysis of problems of alternative corporate financial reporting, foreign currency translation principles and managerial control systems in a multinational environment.

Prerequisite: ACCT 5031 or equivalent.

ACCT 5931: Research Topics in Accounting

Identified by specific title each time course is offered.

ACCT 5939: Independent Studies in Accounting

Independent directed study in Accounting.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

ACCT 6731: Seminar in Financial Accounting Theory

Theoretical approaches to the solution of current problems in financial reporting.

Prerequisite: ACCT 5134 or equivalent.

ACCT 6732: Seminar in Auditing Theory and Practices

Current issues and research in auditing.

Prerequisites: ACCT 5137 or equivalent and DSCI 5031 or permission of the instructor.

ACCT 6735: Oil and Gas Accounting

Accounting for the exploration and production activities of a petroleum company. Major topics include industry background, successful efforts accounting, full cost accounting, tax accounting and required disclosures.

Prerequisite: ACCT 5133 or permission from instructor.

ACCT 6739: Internship in Accounting

Supervised work experience each week in an approved accounting firm, governmental agency, or business.

Written work as required by sponsoring faculty member.

Prerequisites: Master's degree candidacy, approval of associate dean and faculty chair, and sponsoring faculty member.

ACCT 6939; 6969 Master's Thesis Research

Prerequisite: Master's degree candidacy and approval of advisor and dean.

BUSINESS AND PUBLIC ADMINISTRATION COURSES

BAPA 5131: The Global Environment of Business

Explores theories, institutions, and tools relevant to understanding and coping with globalization. Topics covered include technological change, national differences in political economy, cultural and ethical issues, trade policy, international capital flows, and the strategy of international business

Prerequisite: ECON 5031 or equivalent.

BAPA 5636: Entrepreneurship and Small Business Consulting

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 business elective.

Prerequisites: ACCT 5031, FINC 5031, MGMT 5032, MKTG 5031 or equivalent.

BAPA 5915; 5935 Co-op Education in Business

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 BUS elective.

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of the Director of Cooperative Education.

DECISION SCIENCES COURSES

DSCI 5030: Business Calculus

Concepts of derivatives and integrals with applications to business problems. Specific topics to be covered include limits and continuity, logarithmic and exponential functions, differentiation; finding maxima and minima, integration; the definite and indefinite integral. May not be taken as graduate elective credit by any BUS student.

Prerequisite: College algebra or permission of instructor.

DSCI 5031: Business Statistics for Decision-Making

An introduction to business statistics including sampling, data measurements, descriptive statistics, probability, probability distributions, confidence intervals, hypotheses testing, correlation, simple and multiple regression, ANOVA, forecasting, and statistical process control. May not be taken as graduate elective credit by any BUS student.

Prerequisite: College algebra or equivalent.

DSCI 5131: Advanced Data Analysis

Additional topics in the analysis of variance and uses of statistical inference; alternative nonparametric tests; testing of assumptions and applications of correlational techniques.

Prerequisite: DSCI 5031 or equivalent.

DSCI 5431: Management Science and Operations

The scientific approach to managerial decision making. An applied management science course with applications in production/operations management. The topics covered include: decision analysis; inventory, scheduling and production models; computer simulation; queuing; linear programming; project management (PERT, CPM), and forecasting.

Prerequisites: DSCI 5031 and ACCT 5031, or equivalents.

DSCI 5939: Independent Studies in Decision Science

Independent directed study in Decision Sciences.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

ECONOMICS COURSES

ECON 5031: Economic Principles

The study of human behavior from an economic perspective. Principles and analysis of microeconomic and macroeconomic issues and concepts as applied in a domestic and global setting. May not be taken as graduate elective credit by any BUS student.

ECON 5136: Economic Policy & Applications

Analysis and application of microeconomic and macroeconomic policies including wage and price controls, regulation, anti-trust, minimum wage, tax policy and enforcement, monetary controls, tax and expenditure proposals, international trade agreements, tariffs, import duties and quotas, and the incentive effects of government policies.

Prerequisite: ECON 5031 or equivalent.

ENVIRONMENTAL MANAGEMENT COURSES

ENVR 5134: Oil & Hazardous Materials Spills

Regulations, contingency planning and spill prevention in the handling of petroleum and hazardous materials.

ENVR 5331: Environmental Economics

Interaction of environmental problems and the American economy; compatibility of economic progress with programs of environmental control.

Prerequisite: ECON 5031 or equivalent.

ENVR 5332: Environmental Law

Federal and state environmental legislation and case law; concepts of regulation and their application to management decisions.

ENVR 5333: Air Quality Management

Standards for air quality; governmental policies and industrial practices in preventing and controlling atmospheric pollution.

Prerequisite: DSCI 5031 or equivalent.

ENVR 5336: Solid Waste Management

Analysis of waste from commercial, institutional and residential sources; emphasis on resource recovery, control and disposal methods.

ENVR 5337: Hazardous Waste Management

Environmental, technical and socioeconomic aspects of legislation and regulation; prevention, treatment and disposal techniques.

ENVR 5532: Water Management

Development and utilization of water resources; effects of ecological change and public policies on the management of water quantity and quality.

ENVR 5533: Pollution Control Technology

Applied processes in pollution control; emphasis on process selection factors including efficiency, cost, manpower, energy usage and practical utility.

Prerequisite: Introductory chemistry.

ENVR 5534: Permits and Procedures

Requirements for air, water, solid and hazardous waste and other environmental permits; federal, state and local administrative procedures for obtaining and keeping permits.

ENVR 5537: Managing Contaminated Sites

This course covers topics related to cleaning up environmental contamination, including: pollution prevention; emergency response and reporting; spill containment and cleanup; site assessment; remedial design; working with the public; contractor management; project management and budget; cleanup technologies; and closure and monitoring requirements.

ENVR 5931: Research Topics in Environmental Management

Identified by specific title each time course is offered.

ENVR 5939: Independent Studies in Environmental Management

Independent directed study in Environmental Management.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

ENVR 6132: Environmental Impact Assessment

Practice in and analysis of environmental impact assessment, environmental auditing and other planning and decision tools.

Prerequisites: ENVR 5332 and one of ENVR 5333, 5337, 5532, or permission of the instructor.

ENVR 6133: Environmental Risk Management

A broad approach to risk management, incorporating risk assessment and communication and concentrating on case studies.

ENVR 6332: Ecological Issues for the Future

The relationship between man and environment in the future; limits to the exploitation of natural resources.

ENVR 6732: Environmental Management Practices

The use of case studies, problems and field work to analyze current practices and situations in environmental management.

Prerequisite: Approval of instructor and advisor.

ENVR 6739: Internship in Environmental Management

Supervised internship with a public or private environmental agency; written and oral reports required.
Prerequisites: Master's degree candidacy and approval of advisor and dean.

ENVR 6939: Master's Thesis Research

Prerequisites: Master's degree candidacy and approval of advisor and dean.

FINANCE COURSES

FINC 5031: Financial Analysis & Markets

An introduction to and overview of the world of finance. Study of the analytical skills and quantitative techniques useful in reaching financial decisions. May not be taken as graduate elective credit by any BUS student.

Prerequisites: ACCT 5031, DSCI 5031 and ECON 5031, or equivalents.

FINC 5131: The Financial System

The role of money and banking system in the economy; the implications for policy by the central monetary authority; and the role of financial markets and institutions.

Prerequisite: FINC 5031 or equivalent.

FINC 5133: Financial Policy

Develop understanding of the decisions made by financial managers. These decisions are valuation of assets, measuring risk and return, choosing among investment alternatives, financing of operations, capital structure decisions, dividend policy, merger and acquisition decisions, and others.

Prerequisites: FINC 5031 or equivalent.

FINC 5134: Real Estate Investment Analysis and Financing

Analytical techniques of evaluating real estate investments and exploration of the methods of financing such investments.

Prerequisite: FINC 5031 or equivalent.

FINC 5331: Financial Administration Practices

Managerial methods in financial institutions; planning, acquisition and management of funds; investment projects, capital budgeting and maintaining of credit worthiness.

Prerequisite: FINC 5031 or equivalent.

FINC 5332: Structure of Financial Statements

Analyzing, interpreting and forecasting financial statements for credit, investment and internal planning decisions.

Prerequisite: FINC 5031 or equivalent.

FINC 5532: Budget and Control-Government/Service Organizations

Principles and practices of effective budgeting and management control in Government and Service Organizations are presented. Among the topics covered in this course are the budget cycle, alternative budgeting frameworks, designing management control structures, cost-benefit analysis, reporting and measurement, and designing management control systems.

FINC 5733: Retirement and Benefits Planning

An examination of the various retirement vehicles, group life and health programs, and government required benefits. Integration into an overall financial planning process is emphasized.

Prerequisite: Managerial Finance or equivalent.

FINC 5931: Research Topics in Finance

Identified by specific title each time course is offered.

FINC 5939: Independent Studies in Finance

Independent directed study in Finance.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

FINC 6231: Security Analysis

Evaluation of capital market theory and rigorous treatment of securities evaluation to determine the probability distribution of expected returns.

Prerequisite: FINC 5031 or equivalent.

FINC 6233: Options and Futures

Study of the principles governing the use and valuation of options, swaps and financial futures. Emphasis will be placed on using these derivative securities for hedging.

Prerequisite: FINC 5031 or equivalent.

FINC 6234: Portfolio Selection

Selection of stock portfolios, measuring returns and performance. Application of concepts acquired in security analysis.

Prerequisite: FINC 6231 or equivalent.

FINC 6531: International Finance

International financial operations, including foreign trade financing, risk and credit evaluation, letters of credit and bankers' acceptances; role of political and social pressures.

Prerequisite: FINC 5031 or equivalent.

FINC 6533: Seminar in International Finance

Meetings in the field are conducted with the chief financial officers of both financial and non-financial corporations operating in other countries. Discussions will concern long and short-term financial planning, including the impact of exchange rate fluctuations on planning operations.

FINC 6731: Seminar in Finance

Investment and financing decisions of individuals and businesses in the presence of taxes and uncertainty—a microeconomic approach.

Prerequisite: FINC 5133 or equivalent.

FINC 6739: Internship in Finance

Six hours of supervised work experience each week in an approved financial institution or firm.

Prerequisite: Master's degree candidacy, approval of associate dean, faculty chair, and sponsoring faculty member.

FINC 6939: Master's Thesis Research

Prerequisite: Master's degree candidacy and approval of advisor and dean.

HEALTHCARE ADMINISTRATION COURSES

HADM 5032: Leadership and Organization in Health Services

To provide the student with an understanding of the leadership, organization and financing of health services in the United States, to help the student begin to become a healthcare leader, and to identify and discuss current trends in health care delivery, management and operation of hospitals, physician practices, and managed care companies.

HADM 5131: Healthcare Human Resources Management

To acquaint the student with concepts and methods needed to plan and forecast, recruit, train, develop and evaluate health manpower. Also to provide an understanding of the impact of licensing, regulation and labor relations activities on health care institutions.

Prerequisite: HADM 5032 or equivalent.

HADM 5132: Managerial Epidemiology and Health Policy

Introduction to the concepts of public and personal health and disease. Problems in the measurement, analysis, organization and administration of intervention programs will be highlighted. An analysis of individual, community and institutional health efforts will be conducted.

HADM 5133: Health Policy

Analysis of health policymaking, health policy and contemporary issues in health policy with emphasis on the U.S.

HADM 5232: Financial Management of Healthcare Organizations I

This course is designed for students with no accounting training. Topic areas covered are accounting concepts and principles, financial statements, financial statement analysis, forms of business organizations, budgeting, cost analysis, activity based accounting, and accounting for financial decisions. This course cannot be taken by accounting majors or MBA students.

HADM 5233: Financial Management of Healthcare Organizations II

Emphasis is placed on financial concepts and practices, sources and uses of funds, fiscal policies, internal and external controls, financial statistical reporting and definition of terms.

Prerequisites: HADM 5032 and either HADM 5232 or FINC 5031 or equivalents.

HADM 5234: Healthcare Ethics, Values, and Social Responsibilities

Emphasis is placed on resolving ethical issues in healthcare as well as business ethics, biomedical and research ethical issues, services to be offered, distribution of resources and developing a personal value system, and relating that system to the needs of the community.

Prerequisites: HADM 5032 and 5132, or equivalents.

HADM 5331: Planning Healthcare Services

Analysis of the requisites, demands, processes and methods of planning health services. Community planning, program evaluation, setting objectives for health service, and business planning are examined.

Prerequisites: HADM 5032 and 5132, or equivalents.

HADM 5332: Evaluation of Health Services

Analysis of the methods and techniques of evaluating the performance of health services and programs, including the qualitative and quantitative study of program options.

HADM 5333: Healthcare Economics

Examines the health care industry, production of health, insurance, government programs, supply, and demand for physicians, nurses, drugs, and technology, hospitals, legal issues, and international comparisons.

HADM 5431: Healthcare Information Management

Provides the student with knowledge and skills needed to successfully perform in a leadership role in the current information systems dependent environment. Prepares the student for management oversight; administrative design; acquisition, installation, and implementation; and operation of healthcare management information systems.

HADM 5531: Group Practice Management

Introduces the student to the concepts of physician practice management including procedure coding, diagnosis coding, insurance billing and documentation, personnel management, marketing, patient relations, financial management, venture planning, risk management, physician agreements, legal/tax/professional liability.

Prerequisite: HADM 5032 or equivalent.

HADM 5731: Organizational Change and Quality Improvement in Healthcare

Provides the student with knowledge and skills in organization development and change in healthcare facilities as well as total quality management and quality improvement in healthcare organizations. Prepares student for productivity improvement efforts, organization redesign and reengineering in healthcare. Also prepares student for developing and strengthening or redesigning quality improvement programs. Provides coverage of case management and care pathways.

HADM 5911: Special Topics in Healthcare Management

One hour credit special topics in healthcare management to be identified each time the course is offered.

HADM 5931: Research Topics in Healthcare Administration

Identified by specific title each time course is offered.

HADM 5939: Independent Studies in Healthcare Administration

Independent directed study in Healthcare Administration.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

HADM 6132: Legal Aspects of Healthcare Systems

To acquaint the student with the legal issues in health services administration by study of the legal system, licensing, liability and professional ethics.

HADM 6133: Healthcare Facility Planning, Design and Construction

Designed to introduce the student to concepts of health facility planning, design and construction and an understanding of the vocabulary and process employed by planners, architects and consultants.

Prerequisite: HADM 5032.

HADM 6136: Emerging Issues in Healthcare

Acquaints the student with emerging issues in healthcare relating to the organization, financing, and delivery of healthcare services.

HADM 6235: Managed Care

Acquaints the student with managed care terminology, contracting for providers and payors, utilization review, case management, direct contracting, structuring and organization structure.

HADM 6236: Hospital Operations

Management, clinical professional and supporting staff must recognize their core competency is providing a specific portfolio of healthcare services to a set of managers of patient populations. The learning objectives for the course include strategies for: repositioning medical services for managed care; expanding market programs to meet target customers' needs and reporting outcomes to prove the organization's value to its customers; operations strategies for managed care; and performance measures information management.

Prerequisite: HADM 5032 and one other HADM course, or permission of the HADM Director.

HADM 6237: Healthcare Consulting and Entrepreneurship

Application of all academic business and healthcare concepts, theories and principles to consulting and new business ventures. Topics will include economic feasibility studies, business plan writing, practice valuations, practice evaluations, operations assessments, reengineering studies and other consulting and business startup projects. The course will utilize healthcare consultants, public accounting firm partners, turnaround consultants and other practitioners.

Prerequisites: HADM 5132, HADM 5233 and HADM 6132.

HADM 6519: Seminar in Healthcare Competencies

This course is designed to introduce students to the professional requirements necessary for success in the healthcare field. Students will be familiarized with the professional competencies, including skills and behaviors required of the healthcare executive. Focus is on healthcare executive leadership development and personal effectiveness relating to the external environment of healthcare organizations. Emphasizes relationships with physicians, governing boards, regulatory bodies, donors, and other key stakeholders.

Prerequisites: Permission of program director and instructor.

HADM 6539: Graduate Residency in Healthcare Administration

Permission of instructor dependent upon language requirement, Oral TOFEL (if student does not hold a Bachelors degree from a U.S. institution), minimum GPA of 3.3, current MHA or MHA/MBA student, one semester of Internship or healthcare work experience, and other criteria (see HADM program list). Supervised residency with an approved health agency or organization: written and oral reports required.

Prerequisites: Master's degree candidacy, HADM 6519, approval of dean and approval of instructor.

HADM 6738: Seminar in Healthcare Policy and Leadership

Designed to provide the student with an opportunity to apply and integrate previous courses, readings and research in a problem-solving environment. By the use of case studies, problems, field work, case presentations and simulation students will analyze situations and present their findings orally and in written form.

Prerequisite: All other degree requirements prior to the residency.

HADM 6739: Internship in Healthcare Administration

Must have completed at least one semester in the program. Supervised internship with position or project in a healthcare facility. Written and oral reports required. No more than 3 hours of internship credit can be applied toward degree.

Prerequisite: Master's degree candidacy and approval of advisor and dean.

HADM 6939, 6969: Master's Thesis Research

Prerequisites: Master's degree candidacy and approval of advisor and dean.

HUMAN RESOURCE MANAGEMENT COURSES

HMRS 5131: Human Resource Management Processes

Theory and processes of effective development and management of human resources in organization.

HMRS 5136: Group Processes in Organizations

Understanding the complexities of social interaction, group behavior and interpersonal influence in organizational environments. Topics include intragroup and intergroup behavior, leadership, power, conflict and decision-making.

HMRS 5231: Legal Environment of Human Resource Management I

The constitutional and procedural aspect of the employee/employer relationship with special reference to discrimination, wages and hours, pensions, unemployment insurance, health and safety and workers' compensation.

HMRS 5433: Compensation and Benefits

Review and analysis of traditional and nontraditional compensation benefit systems.

HMRS 5434: Performance Review and Productivity

Overview of productivity measurement and analysis as applied to organizations and introduction to performance appraisal, job analysis and measurement techniques used in assessing individual work performance.

HMRS 5435: Employee Planning, Staffing and Selection

Techniques for planning and recruiting human resource needs in the context of organizational requirements. Staffing and selection techniques and practice relative to organizational strategy, legal concerns, and labor market considerations.

Prerequisite: HMRS 5131.

HMRS 5437: Human Resource Information Systems

Principles and procedures used in the development of information systems to aid human resource decision making.

HMRS 5531: Training and Development

An overview of personnel training and development in organizations to include program development.

HMRS 5931: Research Topics in Human Resources

Identified by specific title each time course is offered.

HMRS 5939: Independent Studies in Human Resources

Independent directed study in Human Resources.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

HMRS 6735: Seminar in Human Resource Management

The concepts and practices of strategic human resource management including the development of frameworks to integrate human resource functions and the relationship between human resource strategies and business strategy with a focus on ethical and international issues.

Prerequisites: HMRS 6733 and Last Semester.

HMRS 6739: Internship in Human Resources

Supervised internship with a public or private agency; written and oral reports required.

Prerequisites: Master's degree candidacy and approval of advisor and dean.

HMRS 6839: Master's Project Research

Prerequisite: Master's degree candidacy and approval of advisor and dean.

HMRS 6939: Master's Thesis Research

Prerequisite: Master's degree candidacy and approval of advisor and dean.

INFORMATION SYSTEMS ADMINISTRATION AND COURSES MANAGEMENT COURSES

ISAM 5030: Fundamentals of Business Programming

Common program logic and structures inherent in business application programs; programming using a business-oriented high-level language; overview of program design and development methodologies; management and control of program design and development activities. Includes numerous hands-on class projects. Cannot be taken as ISAM or BUS elective. May not be taken as graduate elective credit by any BUS student.

ISAM 5330: Management Information Systems

Principles and procedures used in the development of information systems. Includes survey of hardware, software, network, database, e-commerce, functional information systems, organizational concepts, system analysis techniques and System Design Life Cycle. Emphasizes online collaboration on a team-oriented analysis project. (Previously ISAM 5631.)

ISAM 5331: Fundamentals of Database Design and Development

Database concepts used in business systems. Applications, advantages and disadvantages of hierarchical, network and relational database systems are presented from a business perspective.

Prerequisite: ISAM 5030 or 6 hours of college-level programming.

ISAM 5332: Data Warehousing and Data Mining

This course provides the knowledge and skills necessary to design and develop a data warehouse as well as extract strategic business intelligence through the application of data mining tools and techniques. Students will examine all phases and tasks of the data warehouse design process, including data structure, dimensional modeling such as star schema, data cube, and data aggregation. They will also perform hands-on exercises with the latest data warehouse and data mining tools to load existing data, preparing data marts, and apply On-Line Analytical Processing (OLAP) tools to obtain business intelligence.

Prerequisite: ISAM 5331 or equivalent.

ISAM 5333: Business Data Communications

Telecommunications hardware and infrastructure, global telecommunications systems, roles and uses of telecommunications systems and computer networks in modern business management.

ISAM 5334: Application Development

This is an application development course featuring the .NET computing platform. This course will cover .NET Framework fundamentals, data structures and storage mechanisms, application security issues and other interfaces between programs and operating system components.

Prerequisite: ISAM 5030 or equivalent.

ISAM 5335: Advanced Applications Programming With Visual Basic

Tools, techniques, and management methodologies used in the development of client-server-based business software, graphic user interface, and business reports. Includes numerous hands-on class projects.

Prerequisite: ISAM 5030 or 6 hours of college-level course work in computer programming.

ISAM 5337: Internet Applications Development

Use and control of Internet systems in business; development of HTML-based Web site creation tools; roles/functions of TCP/IP, cabling systems and servers in Internet connectivity. Includes numerous hands-on class projects.

ISAM 5338: Advanced Internet Applications Development

Client-Server applications development for the World Wide Web using the latest tools and technologies such as setting up a Web Server, development of server-side and client-side scripts, Web forms processing, XML documents processing, use of DTD and XHTML, development of ASP.NET pages with HTML and Web controls, and Web-database applications development. Numerous hands-on projects.

Prerequisite: ISAM 5331, ISAM 5335 and ISAM 5337, or equivalents.

ISAM 5339: Fundamentals of Computer Networking

Basic concepts of networking, OSI and TCP/IP architectures, data link layer protocols, LAN technologies, serial link protocols, WANs, network layer issues, protocols, connection oriented and connectionless protocols, transport layer protocols, internetworking concepts, fundamentals of application layer protocols. Hands-on exercises on protocols, protocol analysis, LANs, WANs, etc.

Prerequisite: ISAM 5030 or 6 hours of college-level course work in computer programming.

ISAM 5439: Computer Network Security

Fundamental computer network security concepts and secure network implementations, security threats to computers and computer networks. Methods to counter security threats, concepts of firewalls, their design and implementation, pre-emptive hacking tools, intrusion detection systems, some aspects of host security using computers with Unix operating systems.

Prerequisite: ISAM 5339.

ISAM 5531: Client/Server System Administration

Exploring and determining how emerging client-server technology, Internet-based technology, tools and techniques work and how they can be integrated in modern business management.

Prerequisite: ISAM 5339 or ISAM 5636 or equivalent.

ISAM 5632: Advanced Database Applications Development

Organization and management of complex business databases and applications such as database design and management, user interface design, application design, database processing and generation of management-oriented reports. Includes numerous hands-on projects using a leading database management system.

Prerequisites: ISAM 5030 or 6 hours of college-level course work in computer programming, and ISAM 5331 or equivalent.

ISAM 5633: Oracle Database Administration

This course introduces students to Oracle Database Administration. The topics covered include components of a database, creating a database, database backup and recovery, database performance tuning and database administration. The course also includes extensive hands-on exercises related to Oracle database administration.

Prerequisite: ISAM 5632 or equivalent.

ISAM 5635: Systems Analysis and Design

Systems concepts; systems analysis and design techniques; methods used to analyze information requirements; methods used to design, evaluate and implement information systems; and a class project.

Prerequisite: ISAM 5030 or 6 hours of programming courses and ISAM 5331.

ISAM 5636: Advanced Computer Networking

The course covers serial and shared link layer protocols, principles of transport and network layer design and analysis, principles of routing in computer networks, routing algorithms, routing protocols, analysis of application level protocols, basic concepts of network security, packet filters, network address translation, port address translation, virtual local area network, etc. Hands-on exercises on building and implementing LANs and WANs, internets, routing protocols, filters and network, advanced protocol analysis, etc.

Prerequisite: ISAM 5339 or equivalent.

ISAM 5637: Information Systems Project Management

This course is a follow-up of the systems analysis and design course. It combines theory and practice to present an understanding of the concepts, skills, tools and techniques involved in an information technology project management. The course includes nine knowledge areas of project management-project integration, scope, time, cost, quality, human resource, communication, risk and procurement management.

Prerequisite: ISAM 5635 or equivalent.

ISAM 5638: Advanced Applications Programming With Java

This is an advanced programming course using the JAVA programming language. Students learn how to design and construct Interactive Java programs for business applications. This course covers program design, coding for Applets and Applications, etc.

Prerequisite: ISAM 5030 or at least 6 hours of programming courses.

ISAM 5639: SQL Server Database Administration

Microsoft SQL Server is a prime relational database management system. This course introduces students to topics such as creating, interacting with, administering, backing up, recovering, and troubleshooting a database using Microsoft SQL Server in a hands-on environment.

Prerequisite: ISAM 5331 or equivalent.

ISAM 5731: Information Systems Audit and Security

Audit of financial statements, financial accounting systems, accounting data flows, segregation of duties in computer environment, general and application controls, data security and access controls, dial-up controls, computer security, application change control, audit of computer programs and data files and computer audit trails.

Prerequisite: ISAM 5330 or equivalent.

ISAM 5732: Fundamentals of Windows Administration

This course introduces students to various windows operating system platforms and integrating these platforms to build domains that serve the needs of an organization. The topics covered include domain designs, domain trees and forests, user administration, file system administration, registry management, file and printing performance management, etc. The course includes extensive hands-on components.

ISAM 5733: Advanced Windows Administration

The topics covered include Windows server maintenance and tuning concepts, active directory design and operation, designing and administering windows client server systems, and building a comprehensive networked Windows environment. The course includes comprehensive hands-on exercises and projects.

Prerequisite: ISAM 5732 or equivalent.

ISAM 5931: Research Topics in Information Systems

Identified by specific title each time course is offered.

ISAM 5939: Independent Studies in Information Systems

Independent directed study in Information Systems.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

ISAM 6739: Internship in Management Information Systems

Supervised work experience related to management information systems with an approved business, industrial firm, or governmental agency; written and oral reports as required.

Prerequisite: Master's degree candidacy, completion of foundation courses and at least 18 hours of MS in MIS required courses, and approval of academic advisor, faculty chair and associate dean.

LEGAL STUDIES COURSES**LEGL 5131: Legal Concepts for the Business Professional**

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.

LEGL 5931: Research Topics in Legal Studies

Identified by specific title each time course is offered.

MANAGEMENT COURSES

MGMT 5032: Human Behavior in Organizations

Behavioral problems associated with innovation, resistance to change and the development of complex organizations and administrative processes. Formerly MGMT 5132; Credit may not be received for both MGMT 5132 and MGMT 5032. May not be taken as graduate elective credit by any BUS student.

MGMT 5131: Business and Society

Role of the firm in society; business responsibilities to society from ethical, political, economic and societal points of view.

Prerequisite: MGMT 5032 or equivalent.

MGMT 5133: Teamwork and Leadership Skills: Theory in Practice

Focus on knowledge-based skill and competency development in effective teamwork, teambuilding, and leadership as well as diagnosing and intervening effectively in problematic team situations. Formerly MGMT 5031; Credit may not be received for both MGMT 5031 and MGMT 5133.

Prerequisite: SHOULD be taken early in the MBA program.

MGMT 5135: Organizational Transformation, Learning, and Design

Seminar in contemporary research and theory applicable to structure and design of organizations, with emphasis upon institutional development, design science, and organizational learning.

Prerequisite: MGMT 5032 or equivalent.

MGMT 5331: Personnel Management

The employment, understanding and management of people, aspects of employee morale and productivity.

Prerequisite: MGMT 5032 or equivalent.

MGMT 5332: Labor Relations

Relationships between unions and management and the structure of industrial bargaining; legal dimensions of employee relations, strikes and settlements.

Prerequisite: MGMT 5032 or equivalent.

MGMT 5636: Management of Technology

This course is designed to introduce a broad range of topics and issues related to the management of technology and technological innovation. The course includes discussions of technology development in industry, academia and government; the process of innovation; the drivers of innovation in a global environment; organizing and leading innovation; and incorporating technology change into company structure and strategy.

Prerequisite: MGMT 5032 or equivalent.

MGMT 5638: Managing Technical and Professional People

This course discusses issues in managing and leading scientists, engineers, and other professionals. It provides ideas on the most effective methods for increasing individual invention and organization innovation. Topics include knowledge management, creativity, leadership, cultural diversity, negotiation, organizational design, global virtual teaming and work/life issues for professionals.

Prerequisite: MGMT 5032 or equivalent.

MGMT 5931: Research Topics in Management

Identified by specific title each time course is offered.

MGMT 5939: Independent Studies in Management

Independent directed study in Management.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

MGMT 6237: Comparative Leadership

The course will examine and focus on proven executive leadership best practices across a range of complex organizations.

MGMT 6331: Organizational Development

Measures for guiding change in the industrial setting; impacts on the labor force and the production process. Change models, diagnostic techniques, intervention strategies and the ethics of change agent client system relationship.

Prerequisite: MGMT 5032 or equivalent.

MGMT 6332: International Management

The course focuses on the challenges of international management including topics of global strategy, organizational design, cross-cultural communication, and human resources.

Prerequisite: MGMT 5032 and BAPA 5131, or equivalents.

MGMT 6333: Seminar in International Management

Meetings in the field are conducted with the officers of companies operating in other countries. Sessions will be concerned with cultural and legal considerations that make labor relations, resource coordination and other management considerations different from the American experience.

MGMT 6731: Strategic Management Seminar

Introduction to corporate-level and business-level strategy. Study of the strategic management process and factors necessary for competitive success in industries.

Prerequisites: Other degree requirements and LAST SEMESTER.

MGMT 6739: Internship in Management

Supervised internship with an approved firm or with an industrial or governmental agency; written and oral reports required.

Prerequisites: Master's degree candidacy and approval of advisor and dean.

MARKETING COURSES

MKTG 5031: Marketing Essentials for the 21st Century: Creating Customer Value

Explores how product, distribution, promotion and pricing strategies are determined in a dynamic environment to create customer value. May not be taken as graduate elective credit by any BUS student.

MKTG 5332: Executive Decisions in Marketing

Making information-based strategic and tactical marketing decisions related to target market selection, product, price, distribution and promotion that increase the probability of success in a competitive marketplace.

Prerequisites: ACCT 5031, MGMT 5133, and MKTG 5031, or equivalents.

MKTG 5333: Entrepreneurship and Small Business Consulting

Application of classroom concepts, theories and principles from all business disciplines to active operations of small businesses or new business ventures.

Prerequisite: ACCT 5031, FINC 5031, MGMT 5032 and MKTG 5031, or equivalents.

MKTG 5532: International Marketing Strategy

Begins with a discussion of incentives for and barriers to international trade, and foreign market selection and entry strategies. Then examines product, price, distribution, and promotion decisions in an international context. Involves secondary marketing research and developing a marketing plan for product introduction into a foreign market.

Prerequisite: MKTG 5031 or equivalent, and BAPA 5131.

MKTG 5533: Seminar in International Marketing

Meetings with the chief marketing people at major firms in several countries are conducted. Sessions will concentrate on their approaches to market development and analysis. Emphasis will be placed on problems and on solutions to those problems that are peculiar to other cultures.

MKTG 5534: Advanced Professional Services Marketing

Central issues involved in planning, implementing and controlling professional services marketing strategies. Examines positioning and use of information technology as a means of achieving differential.

Prerequisite: MKTG 5031 or equivalent.

MKTG 5931: Research Topics in Marketing

Identified by specific title each time course is offered.

MKTG 5939: Independent Studies in Marketing

Independent directed study in Marketing.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.

POLITICAL SCIENCE COURSES (FORMERLY GOVT)

NOTE: POLS courses have been transferred to the School of Human Sciences and Humanities.

Please see that school's Course Roster section of the Catalog.

PUBLIC AND PRIVATE MANAGEMENT COURSES

PPRM 5131: The Study of Administration

Management theory applied to organization, staffing, planning and control in government and in organizations where public-private cooperation is important.

PPRM 5132: Transforming Data Into Information

Techniques for analyzing and evaluating performance; information and power in public-private organizations; qualitative and quantitative study of policy consequences.

PPRM 5133: Decision Support Systems

Principles and procedures used in the development of information systems to aid decision-making in public-private organizations.

PPRM 5231: Budget and Control-Government/Service Organizations

Principles and practices of effective budgeting and management control in government and service organizations are presented. Among the topics covered in this course are the budget cycle, alternative budgeting frameworks, designing management control structures, cost-benefit analysis, reporting and measurement, and designing management control systems.

PPRM 5535: Government and Business

Government strategies for shaping business operation in the United States. Effect of government business interrelations on decision-making in both the public and private sectors.

Prerequisite: PPRM 5131.

PPRM 5931: Research Topics in Public and Private Management

Identified by specific title each time course is offered.

PPRM 5939: Independent Studies in Public and Private Management

Independent directed study in Public and Private Management.

Prerequisite: Approval of instructor, Faculty Chair and Associate Dean required.



President William Staples, Associate Professor of Curriculum, Denise McDonald, Doctorial Candidate Tina Farrell, School of Education, Dean Dennis Spuck, and Provost Carl Stockton celebrate before the December 2009 Graduation Ceremony in honor the bestowing of UHCL's first doctoral degree to Ms. Farrell.



SCHOOL OF EDUCATION

- Doctor of Education (EdD)
 - Educational Leadership
- Master of Science
 - Counseling
 - Curriculum and Instruction
 - Early Childhood Education
 - Educational Management
 - Instructional Technology
 - Multicultural Studies in Education
 - Reading
 - School Library and Information Science
- Master Teacher Certification
 - Master Mathematics Teacher
 - Master Reading Teacher
 - Master Technology Teacher
- UHCL Certificates
 - Online Distance Educator
 - Performance Technology
 - Technology Applications (EC-8)

Building on a solid base of liberal arts and general studies, the School of Education (SoE) seeks to produce thoughtful, skilled and humane educators. Numerous plans are available to help students develop into highly qualified professionals.

The SoE offers an extensive choice of certification plans in graduate 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 SoE are fully approved by the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA), and the University of Houston–Clear Lake is accredited by the National Council for Accreditation of Teacher Education (NCATE).

	Office	Phone
School of Education	Bayou 1231	281-283-3600
Center for Professional Development of Teachers	Bayou 1231	281-283-3612
Center for Educational Programs	Arbor 190	281-283-3530
Office of Academic Advising	Bayou 1231	281-283-3615
Office of Educator Certification	Bayou 1231	281-283-3618
Office of State Assessments	Bayou 1231	281-283-3609
Research Center for Language and Culture	Bayou 1325	281-283-3580
Learning Resources Review Center	Bayou 3402	281-283-3900
Office of the Associate Dean	Bayou 1231	281-283-3620
Office of the Dean	Bayou 1237	281-283-3501
Web site	www.uhcl.edu/soe	
National Council for Accreditation of Teacher Education (NCATE)	www.ncate.uhcl.edu	
New Teachers Online (NTOL)	www.uhcl.edu/soe/ntol	
SoE E-mail Address	education@uhcl.edu	

In the School of Education we believe that teaching, learning and educational leadership should be learner-centered. Whether we are 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. The SoE conceptual framework guides the way in which we structure our university courses and degree plans. This is reflected in the SoE Mission Statement

quoted below. It is also the central theme that is reinforced in our classes. The vision of the School of Education is a learner-centered community in which success for all students is paramount.

The mission of the School of Education is to prepare outstanding educators and leaders in education through achievement of the highest standards of knowledge, skills and dispositions to assist all students to learn. 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 School of Education at the University of Houston-Clear Lake, the first, "...promoting excellence and innovation in learner-centered teaching and learning for all...", is the most succinct statement of what we value as a professional higher education faculty.

ACCOUNTABILITY AND ACCREDITATION

The University of Houston-Clear Lake (UHCL) 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 School of Education (SoE) 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), the National Council for Accreditation of Teacher Education (NCATE) and the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA), and how our university measures up to those criteria and standards.

DEPARTMENT OF EDUCATION ACCOUNTABILITY

In 1998, Congress reauthorized Title II of the Higher Education Act. The Act established a reporting system for the U.S. Department of Education (USDE) to collect information annually on the quality of the teacher training programs of states and institutions of higher education. Within Title II, the USDE 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 USDE 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. In Texas, SBEC/TEA collects all data for Title II.

The pass rates of the 2007-2008 academic year cohort of teacher certificate program completers at UHCL were evaluated and compared to the pass rates of the state and national groups of program completers. At UHCL, our students from the 2007-2008 cohort had an overall passing rate of almost 100% on all of their state assessment.

Our pass rates during 2007-2008 included the following:

Basic Skills Assessment	100%
Academic Content Areas	100%
Professional Knowledge	100%
Teaching Special Populations	100%
Summary Pass Rates (Overall)	100%

The Texas statewide pass rates in each of those areas in 2007-2008 included the following:

Basic Skills Assessment	100%
Academic Content Areas	97%
Professional Knowledge	96%
Teaching Special Populations	94%
Summary Pass Rates (Overall)	95%

For a complete summary of all pass rates see the federal Title II reporting Web site and click on, "View State Reports Here" at: <https://title2.ed.gov/default.asp>.

Title II also collected the following numeric data about our students and faculty for the 2007-2008 cohort. Title II requires that all higher education institutions publicly share the following data about their institution:

Students enrolled in teacher preparation programs	663
Students in supervised student teaching (internships)	321
Full-time faculty in professional education of teacher preparation	27
Part-time faculty of teacher preparation	71
Total number of supervising faculty for the teachers preparation program during 2007-2008	99
The student/faculty ration was	3.24
Average number of hours per week required of students' participation in supervised teaching	24
Total number of required weeks of supervised student teaching (internships)	21
Total number of hours required of a supervised student teacher	504

NCATE ACCREDITATION

NCATE is the largest and most recognized accrediting body for teacher education in the United States. The University of Houston-Clear Lake is one of only 13 Texas higher education institutions to be accredited by NCATE. NCATE has rigorous academic guidelines for initial and advanced levels of educator certification. The NCATE Board of Examiners conducted a site visit of UHCL in spring 2007, and the NCATE Accrediting Board awarded UHCL continuing accreditation at both the initial and advanced levels. NCATE cited no areas for improvement.

SBEC/TEA ACCREDITATION

The University of Houston-Clear Lake is one of 164 educator preparation programs in the State of Texas that are accredited to recommend educators for certificates. SBEC/TEA implements stringent guidelines and standards for initial and advanced

levels of educator certification. These standards are evaluated by the pass rates of our students on the SBEC/TEA state assessments. TEA's last announcement of UHCL's overall final pass rate on all State Assessments was 99%.

The administrative functions for the certification process are conducted by the Educator Certification and Standards Division of the Texas Education Agency (TEA). Licensing authority remains with SBEC/TEA.

POLICY ON PROFESSIONAL DISPOSITIONS

Students who are seeking teacher certification or are enrolled in the SoE are required to read The Statement on Professional Dispositions, which is provided to define the standard of behavior the School of Education expects of its students. Just as students may be withdrawn from their program for not meeting the academic requirements, students may be withdrawn from their program for not meeting the professional disposition standards. The Statement on Professional Dispositions is found at http://prtl.uhcl.edu/portal/page/portal/SOE/Forms/form_files/DISPOSITIONS.pdf

FIELD EXPERIENCE COURSES

In the School of Education Course Roster there are many courses which have descriptions which end with "Field experiences required." 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.

CRIMINAL BACKGROUND CHECKS

As required by Texas Senate Bill 9, the district 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.

CENTERS AND OFFICES

CENTER FOR PROFESSIONAL DEVELOPMENT OF TEACHERS

The School of Education has been designated 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, field-based courses, and close cooperation with a number of schools, which have been designated as professional development school 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 works 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.

Field-based experiences and graduate internships take place in a variety of settings in 22 local area school districts. Forty-five schools have been designated as professional development schools (PDS) and provide pre-service internships and professional mentoring. In addition, the SoE has an additional 124 contracts with other businesses and other school districts to provide both graduate internship placement and field experiences.

PROFESSIONAL DEVELOPMENT LABORATORY SCHOOL

The University of Houston-Clear Lake and the Clear Creek Independent School District (CCISD) have entered into a partnership to create and maintain a professional development laboratory school (PDLS). The PDLS is located in what was McWhirter Elementary School in Webster, Texas, and opened at the beginning of the 2002 - 2003 school year.

The School of Education acts on behalf of the University to oversee the PDLS. UHCL faculty provides instructional leadership, conducts research, and engages in professional development. In addition, some SoE courses are taught at the PDLS. 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 SoE Associate Dean.

CENTER FOR EDUCATIONAL PROGRAMS

The Center for Educational Programs (CEP) provides academic and outreach services to students, faculty, schools, school districts, other educational entities and members of the community. The CEP coordinates the SoE'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 SoE.

OFFICE OF ACADEMIC ADVISING

This office provides information about the SoE degree requirements, advises all post-degree teacher certification students who seek initial teaching certificates, analyzes transcripts, performs student audits prior to admission to Pre-service Internship I and the Alternative Certification Program (ACP) and prepares degree and certification

plans for these students. The office also advises prospective graduate students in the various SoE 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 SoE. This office also approves applications for admission to the Teacher Education Program; audits for practica, graduate internships, the Master's Comprehensive Examination and graduation; recommends students for educator certificates; prepares deficiency plans and tracks Title II data.

OFFICE OF STATE ASSESSMENTS

The Office of State Assessments advises and disseminates information to students about the state exams, called TExES (Texas Examinations of Educator Standards). Candidates must pass their required TExES in order to become public school educators in the state of Texas. This office receives exam scores from the state and records the scores in the appropriate students' files. It also houses and distributes literature pertaining to state assessments, including registration instructions, practice test information, and notification of any changes or updates from the State Board for Educator Certification regarding the TExES. The office offers opportunities for UHCL students and alumni to take practice tests to help prepare them for their actual exam(s). The SoE State Assessments Coordinator networks with UHCL faculty and staff, as well as Educational Testing Services (ETS) and the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA), to ensure accurate testing procedures and requirements.

RESEARCH CENTER FOR LANGUAGE AND CULTURE

This center supports initiatives in 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 SoE 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

The UHCL School 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 a bachelor's degree to be employed as full-time teachers while they complete their certification. The length of the program may be from one to three years, depending on the students' qualifications. The ACP meets the requirements of the U.S. Department of Education's (USDE) definition of "highly qualified" under the No Child Left Behind Law (NCLB). According to the USDE and NCLB, each school district must ensure that all teachers hired who teach core academic subjects funded by Title I funds are "highly qualified." An uncertified educator is able to meet this "highly qualified" definition by:

- Holding a bachelor's degree or higher from an approved institution
- Being admitted to an SBEC approved ACP
- Passing the content state assessments required for the certification area being sought.

Admission Requirements

Students must have the following:

1. Degree - Must have an earned 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.
2. State Assessment - Must pass the appropriate TExES content area state assessment.
3. UHCL Enrollment - Must be admitted to UHCL by the Office of Admissions before the ACP application deadline in order for the SoE Office of Academic Advising to obtain transcripts from the Office of Admissions to calculate GPA. Enroll as either a Graduate Teacher Certification student or a Post-Baccalaureate Teacher Certification student.
4. Teacher Education Program (TEP) Admission - Must be formally admitted by letter to the SoE Teacher Education Program by the end of first 12 months of enrollment in ACP. Admission requires completion of EDUC 5130; SILC 6030; TCED 6031; THEA/TASP (Reading 260, Writing 230, Mathematics 230) or an approved master's degree or higher; a college-level public speaking course with "C-" or better or Speech Competency form; a GPA greater than 2.500 overall or in the 60 most recent semester credit hours; completion of a minimum of 12 semester credit hours in the subject-specific content area for the certificate being sought; and the TEP application form. Submit the TEP application form and all supporting documentation to the SoE Certification Office in B1231.
5. GPA - Must have at least a 2.500 overall Grade Point Average (GPA). This overall GPA includes all course work from all collegiate institutions attended - not just UHCL. If students do not have at least a 2.500 overall GPA, then at least a 2.500 GPA in the last 60 hours of course work may be accepted (includes all course work in the semester of the 60th hour).
6. Application - Must complete the ACP Application (will be available at the informational meetings with Academic Advising or in the Office of the Center for Professional Development of Teachers (CPDT), B1231-4. Application must be submitted to the CPDT office by the deadline posted on the CPDT bulletin board.

The deadline date is based on the paper-based TExES administration schedule. Mailed applications must be postmarked at least 5 days prior to deadline date. Faxes and late applications will not be accepted.

7. Fees - \$60 ACP fee, which is paid to the CPDT office, is non-refundable, and is valid for 12 months from the date of application. \$120 state assessments fee, which is paid to Educational Testing Service (ETS) during online registration. Partial refunds will be made for state assessments cancelled during regular or late registration periods. No refunds will be made for cancellations after the late registration period.
8. Acceptance Letter – A letter of acceptance sent by the CPDT confirming the student has met the above requirements for entry into the UHCL ACP.

The teaching position must be with one of the UHCL CPDT Teacher Center Board member districts. The following is a list of member districts.

Alvin	Angleton	Brazosport	Channelview
Clear Creek	Columbia-Brazoria	Danbury	Deer Park
Dickinson	Friendswood	Galena Park	Galveston
Goose Creek	Hitchcock	Houston	La Marque
La Porte	Pasadena	Pearland	Santa Fe
Sheldon	Texas City		

Qualified Alternative Certification Program Students

Upon acceptance, qualified students will complete the following steps:

1. Probationary Certificate – Students must apply online for a Probationary Certificate issued by SBEC/TEA, at <http://www.sbec.state.tx.us/sbeconline> under "Applications and Probationary Certification." There is a \$52 fee for the certificate and a \$42.25 fee for fingerprinting and a background check, both of which are paid online at the SBEC Web site. Students must have a professional fingerprinting service digitally scan their prints and send them to SBEC/TEA. SBEC/TEA will conduct its criminal background check using these scans by running them through the FBI and DPS databases. A maximum of three probationary certificates may be issued by SBEC/TEA per student (one per academic year), and students must reapply for them each year. SBEC/TEA may or may not issue a probationary certificate to anyone formerly on an emergency permit or other permit. Students should have the school district contact SBEC/TEA if the district has a concern with this issue.
2. Alternative Certification Program Fee –A non-refundable fee of \$3,000 (subject to change) will be deducted from each ACP student's annual salary by the school district. This fee supports the administration of the program, the university supervisor, the public school mentor, and the student's release time classroom substitute. Students who require a second or third year to complete the program will have a fee of \$900 deducted from their salary each semester for the same reasons stated above. Three years is the maximum allowed to complete the program. Students will register for the ACP Internship course every semester, in addition to any remaining courses required for completion of their certification.

3. Certification Plan - Students' transcripts will be analyzed during the first semester at UHCL, and the SoE Office of Academic Advising will create Candidate Plans of Study for all students. (Deficiency plans are not used by the ACP.) Students will receive a card in the mail with instructions to come to B1231 to sign the plan. See Graduate Teacher Certification or Post-Baccalaureate Teacher Certification sections of catalog, the bulletin board at B1231 and SoE Web site for additional details on the SoE plans.
4. Plan Completion - Students will assume all tuition, fees and other costs for required university course work, and complete all the requirements listed on the plan. Students must then apply for the Standard Classroom Teaching Certificate online and pay SBEC a \$77 fee. UHCL then recommends the students for the certificates at SBEC Online.

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 grade point average (GPA) in Professional Development course work 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. Graduate students must maintain a cumulative GPA of 3.000 or better in course work.

A State Board for Educator Certification 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 249.15.

STATE ASSESSMENTS INFORMATION

The State Board for Educator Certification (SBEC)/Texas Education Agency (TEA) has developed assessments for each educator certificate, called TExES (Texas Examinations of Educator Standards). All initial certification students must pass at least two state exams: a content, or generalist, exam, and a pedagogy exam. Students seeking bilingual certification must take either the Texas Oral Proficiency Test (TOPT) or the Bilingual Target Language Proficiency Test (BTLPT) in addition to their content and pedagogy exams. Note: The TOPT will not be administered after August 2010. Students seeking special education certification must take two content exams, and a pedagogy exam. To determine which state assessments are required for a certificate, students should check their degree or certification plan, view the SoE bulletin board in the hallway outside Bayou 1231, or ask an SoE Academic Adviser.

Initial certification students at UHCL may register to take their state assessments on any of the test administration dates under the following conditions:

- Students must have an approved degree or certification plan on file in the School of Education that matches the state assessments for which they are registering.
- Students must be formally admitted to the Teacher Education Program.
- Students must be enrolled in or have completed a semester in either TCED 4010 or TCED 4012: Senior Seminar.

Students who meet the above conditions may register for the state assessments by completing the following steps:

- Set up an SBEC account at www.sbec.state.tx.us. This account will follow the student throughout his/her Texas public school educator career, so it should be updated whenever needed, such as for name and address changes.
- Make a note of TEA ID number from SBEC account.
- Log onto the Educational Testing Service (ETS) Web site at www.texas.ets.org and set up a New User account. Use the exact personal information for this account as in the SBEC account. Follow directions for registering for an exam, using TEA ID number retrieved from SBEC account.

All test registrations are to be done online, unless test taker has no way of paying the test fees electronically, in which case registration may be done by telephone.

The following items are available to students to prepare for the state assessments:

- Study Guides. Free preparation manuals for every certification area are available through Educational Testing Service, at <http://www.texas.ets.org>.
- Library. The UHCL Neumann Library has the ETS TExES study guides on reserve and in the stacks for students' use. The library also has TExES study guides other than those published by ETS in the stacks. The curriculum library contains textbooks for all grade levels and most subject areas, which students may find useful in preparing for content exams.
- Review Sessions/Tutoring. Faculty often work with students to help prepare them for the state assessments through individual tutoring sessions.
- Practice Assessments. Practice tests are administered in the courses TCED 4010 and TCED 4012 (Senior Seminar). SoE's Office of State Assessments also gives practice tests several times a year. Contact the SoE Advising Office for more information.

STATE BOARD FOR EDUCATOR CERTIFICATION (SBEC)/TEXAS EDUCATION AGENCY (TEA)

For additional information on State certification, contact SBEC/TEA at their Web site <http://www.sbec.state.tx.us/> or at their Information and Support Center toll-free number, 1-888-863-5880. Any changes made by the State and UHCL in interpreting the rulings on educator certification plans in Texas may supersede the requirements of existing certification plans, degree plans, alternative certification plans or deficiency plans.

APPLYING FOR CERTIFICATION

All students completing requirements for certificates must apply for certification and pay the required fee at the "SBEC Online" Web site: <http://www.sbec.state.tx.us/>. Verification of certification will automatically be issued electronically by SBEC/TEA as soon as all requirements have been completed by an educator.

POST-DEGREE TEACHER CERTIFICATION PLANS

Students seeking initial teacher certification who hold at least a bachelor's degree from an accredited university may 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. Students who do not wish to pursue a master's degree can follow a post-baccalaureate teacher certification program (see undergraduate catalog). Students pursuing a second bachelor's degree are also considered to be post-baccalaureate teacher certification program students and should consult the UHCL Undergraduate Catalog.

GRADUATE TEACHER CERTIFICATION PLANS

To be eligible for admission to a graduate teacher certification plan, students must have a bachelor's degree from an accredited university and also be pursuing a master's degree at UHCL. Students must meet the graduate admissions requirements for both the university and the School of Education. These requirements are described in the graduate plan section of this 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.

Any student seeking initial teacher certification is required to attempt the Texas Higher Education Assessment (THEA) prior to the end of his/her first semester at UHCL. Any student who has not passed the THEA (see **ADMISSION TO THE TEACHER EDUCATION PROGRAM**) or attempted the THEA in the previous long semester will not be permitted to register.

At UHCL a graduate student can pursue the following Graduate Teacher Certificates:

- EC-6 Generalist
- EC-6 Bilingual Generalist
- EC-6 ESL Generalist
- 4-8 English Language Arts and Reading
- 4-8 English Language Arts & Reading/Social Studies
- 4-8 Generalist
- 4-8 Mathematics
- 4-8 Science
- 4-8 Social Studies
- 8-12 English Language Arts and Reading

- 8-12 History
- 8-12 Life Sciences
- 8-12 Social Studies
- 8-12 Mathematics
- EC-12 Special Education (All Level)

Graduate Teacher Certification Plan EC-6 Generalist

This certification may also be combined with a master's degree in Early Childhood Education. Please refer to master's degree plans.

Check prerequisites before enrolling in any courses.

Required Courses:

ECED 5031
 ECED 5033/TCED 4033
 ECED 5131/ECED 4032
 ECED 5132/ECED 4131
 ECED 5331/ECED 4134
 ECED 5335/ECED 4335

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
 SILC 6030/SILC 4135
 TCED 6031/INST 3133

Pedagogy Courses:

TCED 5231/TCED 4231
 TCED 5232/TCED 4232
 TCED 5233/TCED 4233
 TCED 4738 and TCED 4798 or
 TCED 4768 and TCED 4769

Other required courses:

LLS 5131/LLS 4434
 LLS 5533/LLS 4435
 SPED 5030/SPED 4030
 TCED 4010

Graduate Teacher Certification Plan EC-6 Bilingual Generalist

Check prerequisites before enrolling in any courses.

Required Courses:

ECED 5132/ECED 4131
 ECED 5331/ECED 4134
 SILC 5032/SILC 4133
 SILC 5130/SILC 4130
 SILC 5134/SILC 4134

Choose one course from:

SILC 5031/SILC 4136
 SILC 5531/SILC 4531

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
 SILC 6030/SILC 4135

TCED 6031/INST 3133

Pedagogy Courses:

TCED 5231/TCED 4231

TCED 5232/TCED 4232

TCED 5233/TCED 4233

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

LLS 5131/LLS 4434

SPED 5030/SPED 4030

TCED 5010/4010

Graduate Teacher Certification Plan EC-6 ESL Generalist

Check prerequisites before enrolling in any courses.

Required Courses:

ECED 5132/ECED 4131

ECED 5331/ECED 4134

SILC 5032/SILC 4133

SILC 5130/SILC 4130

SILC 5134/SILC 4134

Choose one course from:

SILC 5033/SILC 4132

SILC 6032/SILC 4032

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130

SILC 6030/SILC 4135

TCED 6031/INST 3133

Pedagogy Courses:

TCED 5231/TCED 4231

TCED 5232/TCED 4232

TCED 5233²/TCED 4233TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

LLS 5131/LLS 4434

SPED 5030/SPED 4030

TCED 5010/4010

Graduate Teacher Certification Plan 4-8 English Language Arts and Reading

Check prerequisites before enrolling in any courses.

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Required Courses:

LITR 3631

LITR 4031

LLS 4436

LLS 5135/LLS 4131

LLS 5531/LLS 4531

LLS 5533/LLS 4435

Choose two courses from:

LITR 3334
LITR 3731
LITR 4034
LITR 4035
LITR 4131
LITR 4132
LITR 4133
LITR 4134
LITR 4238
LITR 4331
LITR 4533
LITR 4534
LITR 4535
LITR 4537
LITR 4632

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

SPED 5030/SPED 4030
TCED 4012
TCED 5431

Notes Regarding the No Child Left Behind (NCLB) Highly Qualified Teacher Requirements

To be "Highly Qualified" for employment to teach at the Elementary level (Grades EC-6) teacher candidates must pass an EC-6 Generalist or 4-8 Generalist TExES exam. Candidates may take a TExES Generalist exam after completing an initial certification program. Fully certified teachers may register for the additional TExES as "By Exam Only" at the ETS test registration website. Then they may apply at the SBEC/TEA website as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 512-463-9374 or <http://ritter.tea.state.tx.us/taa/stanprog012210a.html>

Graduate Teacher Certification Plan 4-8 English Language Arts, Reading and Social Studies

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

HIST 3230
HIST 4035'
LITR 3631
LITR 4031
LLLS 5131/LLLS 4434

LLS 5135/LLS 4131
LLS 5531/LLS 4531

Choose two courses from:

LITR 3334
LITR 3731
LITR 4034
LITR 4035
LITR 4131
LITR 4132
LITR 4133
LITR 4134
LITR 4238
LITR 4331
LITR 4533
LITR 4534
LITR 4535
LITR 4537

LITR 4632 Choose two courses from:

GEOG 3137¹
GEOG 4030
GEOG 4136

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4331
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

SPED 5030/SPED 4030
TCED 4012
TCED 5431

¹Course has lower-level equivalent.

²Students entering UHCL with GEOG 1303 have met the GEOG 3137 requirement.

Notes Regarding the No Child Left Behind (NCLB) Highly Qualified Teacher Requirements

To be "Highly Qualified" for employment to teach at the Elementary level (Grades EC-6) teacher candidates must pass an EC-6 Generalist or 4-8 Generalist TExES exam. Candidates may take a TExES Generalist exam after completing an initial certification program. Fully certified teachers may register for the additional TExES as "By Exam Only" at the ETS test registration website. Then they may apply at the SBEC/TEA website as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 512-463-9374 or <http://ritter.tea.state.tx.us/taa/stanprog012210a.html>

Graduate Teacher Certification Plan 4-8 Generalist

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

LITR 3631
LLS 5531/LLS 4531
LLS 5533/LLS 4435
MATH 3037

Choose one course from:

LITR 4031
WRIT 3037

Choose one course from:

GEOG 3137¹
GEOG 4030
GEOG 4032
GEOG 4033

Choose one course from:

HIST 3230
HIST 3331
HIST 3332
HIST 4034
HIST 4035²
HIST 4036
HIST 4037
HIST 4038
HIST 4133
HIST 4137
HIST 4138
HIST 4139
HIST 4230
HIST 4333

Nine hours of upper-level science courses required - one course from each of the following areas: Biology, Earth Science and Physics/Chemistry/Astronomy.

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4331
TCED 5332/TCED 4332
TCED 5333/TCED 4333
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

SPED 5030/SPED 4030
TCED 4012
TCED 5431

¹Students entering UHCL with GEOG 1303 have met the GEOG 3137 requirement.

²Course has lower-level equivalent.

Graduate Teacher Certification Plan 4-8 Mathematics

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

CALCULUS I (4 hours)
CALCULUS II (4 hours)
MATH 3034
MATH 3131
MATH 4030
MATH 4434

Choose four courses from:

MATH 3231
MATH 4031
MATH 4132
MATH 4135
MATH 4136
MATH 4231
MATH 4232
MATH 4235
MATH 4435

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769
TCED 5333/TCED 4333

Other required courses:

LLS 5531/LLS 4531
LLS 5533/LLS 4435
SPED 5030/SPED 4030
TCED 5010/4012
TCED 5431

Notes Regarding the No Child Left Behind (NCLB) Highly Qualified Teacher Requirements

To be "Highly Qualified" for employment to teach at the Elementary level (Grades EC-6) teacher candidates must pass an EC-6 Generalist or 4-8 Generalist TExES exam. Candidates may take a TExES Generalist exam after completing an initial certification program. Fully certified teachers may register for the additional TExES as "By Exam Only" at the ETS test registration website. Then they may apply at the SBEC/TEA website as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 512-463-9374 or <http://ritter.tea.state.tx.us/taa/stanprog012210a.html>

Graduate Teacher Certification Plan 4-8 Science

Check prerequisites before enrolling in any courses.

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Required Courses:

Botany and lab (4 hours)

Zoology and lab (4 hours)

Physics (4 hours)

BIOL 3037

BIOL 3333

BIOL 3431

Choose one course from:

GEOL 3034

GEOL 3035

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130

SILC 6030/SILC 4135

TCED 6031/INST 3133

Pedagogy Courses:

TCED 5332/TCED 4332

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

LLS 5531/LLS 4531

LLS 5533/LLS 4435

SPED 5030/SPED 4030

TCED 4012

TCED 5431

Notes Regarding the No Child Left Behind (NCLB) Highly Qualified Teacher Requirements

To be "Highly Qualified" for employment to teach at the Elementary level (Grades EC-6) teacher candidates must pass an EC-6 Generalist or 4-8 Generalist TExES exam.

Candidates may take a TExES Generalist exam after completing an initial certification program. Fully certified teachers may register for the additional TExES as "By Exam Only" at the ETS test registration website. Then they may apply at the SBEC/TEA website as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 512-463-9374 or <http://ritter.tea.state.tx.us/taa/stanprog012210a.html>

Graduate Teacher Certification Plan 4-8 Social Studies

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

GEOG 3137¹

GEOG 4030

GEOG 4136
HIST 3230
HIST 4035²

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4331
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

LLS 5531/LLS 4531
LLS 5533/LLS 4435
SPED 5030/SPED 4030
TCED 4013
TCED 5431

¹Students entering UHCL with GEOG 1303 have met the GEOG 3137 requirement.

²Course has lower-level equivalent.

Notes Regarding the No Child Left Behind (NCLB) Highly Qualified Teacher Requirements

To be "Highly Qualified" for employment to teach at the Elementary level (Grades EC-6) teacher candidates must pass an EC-6 Generalist or 4-8 Generalist TExES exam. Candidates may take a TExES Generalist exam after completing an initial certification program. Fully certified teachers may register for the additional TExES as "By Exam Only" at the ETS test registration website. Then they may apply at the SBEC/TEA website as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 512-463-9374 or <http://ritter.tea.state.tx.us/taa/stanprog012210a.html>

Graduate Teacher Certification Plan 8-12 English Language Arts and Reading

Check prerequisites before enrolling in any courses.

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Required Courses:

LITR 3631
LITR 4031
LLS 5135/LLS 4132
LLS 5531/LLS 4531
LLS 5532/LLS 4532

Choose two courses from:

LITR 3334
LITR 3731
LITR 4034
LITR 4035
LITR 4131

LITR 4132
LITR 4133
LITR 4134
LITR 4238
LITR 4331
LITR 4533
LITR 4534
LITR 4535
LITR 4537
LITR 4632

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769
LLS 5634/LLS 4634

Other required courses:

SPED 5030/SPED 4030
TCED 5010/4012
TCED 5530

Graduate Teacher Certification Plan 8-12 History

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Check prerequisites before enrolling in any courses.

Required:

GEOG 3137¹
HIST 4036
HIST 4133
HIST 4333

Choose two courses from History electives: Please see School of Education academic adviser.

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 5234/TCED 4631
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

LLS 5135/LLS 4132
LLS 5531/LLS 4531
SPED 5030/SPED 4030
TCED 4013
TCED 5530

¹Students entering UHCL with GEOG 1303 have met the GEOG 3137 requirement.

Graduate Teacher Certification Plan 8-12 Life Sciences

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

Botany and lab (4 hours)
Zoology and lab (4 hours)
Chemistry (8 hours)
BIOL 3431
BIOL 4011
BIOL 4031

Choose one course from:

BIOL 3036
BIOL 4738

Choose one course from:

BIOL 3333
BIOL 4131

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769
TCED 5235/TCED 4632

Other required courses:

LLS 5135/LLS 4132
LLS 5531/LLS 4531
SPED 5030/SPED 4030
TCED 5010/4012
TCED 5530

Graduate Teacher Certification Plan 8-12 Mathematics

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

CALCULUS I (4 hours)
CALCULUS II (4 hours)
MATH 3034
MATH 3035
MATH 3131
MATH 4434

Choose five courses from:

MATH 3231
MATH 4031
MATH 4131
MATH 4132

MATH 4135
MATH 4136
MATH 4231
MATH 4232
MATH 4235
MATH 4435

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769
TCED 5236/TCED 4633

Other required courses:

LLS 5135/LLS 4132
LLS 5531/LLS 4531
SPED 5030/SPED 4030
TCED 5010/4012
TCED 5530

Three hours of scientific programming language (C++, C, Java, Visual BASIC, BASIC, Fortran or Pascal).

Graduate Teacher Certification Plan 8-12 Social Studies

This plan has a content waiver option based on passing the content state assessments on the first attempt. See an SoE adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

GEOG 3137¹
GEOG 4132
GEOG 4136
HIST 4036
HIST 4133
HIST 4333

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769
TCED 5234/TCED 4631

Other required courses:

LLS 5135/LLS 4132
LLS 5531/LLS 4531
SPED 5030/SPED 4030
TCED 5010/4012
TCED 5530

¹Students entering UHCL with GEOG 1303 have met the GEOG 3137 requirement.

Graduate Teacher Certification Plan EC-12 Special Education (All-Level)

Check prerequisites before enrolling in any courses.

Required Courses:

SPED 5030/SPED 4030¹
SPED 5131/SPED 4131¹
SPED 5132/SPED 4132¹
SPED 5133/SPED 4133
SPED 5233/SPED 4231
SPED 5331/SPED 4331
SPED 5332/SPED 4332

Prerequisite Courses for Admission to Teacher Education Program:

EDUC 4130
SILC 6030/SILC 4135
TCED 6031/INST 3133

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769

Other required courses:

LITR 4031² or WRIT 3037²
LLS 5131/LLS 4434²
LLS 5134/LLS 4131²
LLS 5533/LLS 4435
LLS 6732
TCED 4010
TCED 5030
MATH 3031
MATH 3032

¹These courses must have been taken after 1997.

²These courses may be waived. See Adviser.

Notes Regarding the No Child Left Behind (NCLB) Highly Qualified Teacher Requirements

To be "Highly Qualified" for employment with an EC-12 Special Education teaching certificate to teach at the Elementary level (Grades EC-6) teachers must also earn an EC-6 Generalist, 4-8 Generalist or a 4-8 content specific teaching certificate. The UHCL undergraduate program includes the EC-6 Generalist certification. Those following a post-degree teacher certification plan will need to earn an additional certification by taking the appropriate TExES after having completed the UHCL EC-12 Special Education program. Fully certified teachers can register for the additional TExES as "By Exam Only."

To be "Highly Qualified" for employment with an EC-12 Special Education teaching certificate to teach at the Secondary level (grades 7-12) teachers must also earn the 4-8 Generalist, a 4-8 content specific, or an 8-12 content specific teaching certification. Fully certified teachers can register for the additional TExES as "By Exam Only."

As of Fall 2008, the federal government is allowing Texas school districts some flexibility in the above requirements by allowing for High Objective Uniform State Standard of Evaluation or "HOUSE" points within the first two years of employment for elementary

teachers. For secondary teachers, the federal government is allowing use of passing an additional content test or holding an additional academic major, graduate degree, or hours of course work to be considered Highly Qualified. For information pertinent to a Special Education job within a specific school district, contact the Texas Education Agency's No Child Left Behind (NCLB) representative at, 512-463-9374, or view their Web site: <http://www.tea.state.tx.us/nclb/hqteachers.html> . See the section called "Guidance for Implementation of NCLB Highly Qualified Teacher Requirements."

ADMISSION TO PRE-SERVICE INTERNSHIPS I AND II

TCED 4738- Pre-service Internship I and TCED 4798- Pre-service Internship II, and TCED 4668- Pre-service Internship II- Generalist are the capstone experiences for the UHCL approved Teacher Education Program, and students must enroll in consecutive long semesters (fall/spring or spring/fall) to complete these two experiences. The rules governing TCED 4798 and TCED 4668 are identical. Pre-service Internship I is every Wednesday of the public school semester. Pre-service Internship II is every day of the public school semester. Enrollment in Pre-service Internship I should not be considered until almost all courses have been successfully completed, since the number of semester hours in the Pre-service Internship II semester is restricted to 15 hours. Specific requirements for Pre-service Internships I and II are listed below.

Students must apply for Pre-service Internships I and II through the CPDT. Applications for Pre-service Internships I and II must be received in the CPDT by March 1 for fall and October 1 for spring. Mailed applications must be postmarked by February 24 for fall and September 26 for spring. No faxes or late applications will be accepted. Pre-Service Internships I and II are not offered during the summer.

Informational meetings are held in early September and February each year. Dates and times are posted on the bulletin board outside Suite B1231. TCED 4738 Pre-service Internship I applications are available at the informational meeting, after the informational meeting or by contacting CPDT.

Pedagogy courses 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. The degree and/or certification Candidate Plan of Study (CPS) is the official documentation of requirements.

Pre-Service Internship I

All students must meet the following requirements for admission to Pre-Service Internship I:

- Formal admission to Teacher Education Program (see above).
- Verification of written and spoken proficiency in English. Evidence of successful completion of a speech and composition courses (if the course requires public speaking in English) will satisfy this requirement.
- Pedagogy courses and LLLS 5131/LLLS 4434 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. Courses offered before 7:00 p.m. on Wednesdays may not be taken during Internship I, as they may interfere with Internship I course requirements.

- For those certifications requiring TCED 4233, successful completion of MATH 3032 is a prerequisite. For those certifications requiring TCED 4333, successful completion of MATH 3037 is a prerequisite, unless otherwise noted in the catalog. See catalog prerequisites for all pedagogy courses.
- Applications for Pre-service Internship I must be received in the CPDT (B1231-4) before the close of business on March 1 for fall and October 1 for spring. Mailed applications must be postmarked by September 26 for spring and February 24 for fall. 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. Faxes and late applications will not be accepted.
- Upon acceptance into TCED 4738, a student will be required to 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 the following consecutive long semester. Students will be informed of their public school internship assignment before Pre-service Internship I begins.

Pre-Service Internship II (TCED 4798 or TCED 4668)

Students must meet the following requirements for admission to Pre-service Internship II:

- Successful completion of Pre-service Internship I (grade of "B-" or better).
- Successful completion of all field experiences courses.
- GPA of 3.000 or better in pedagogy courses, with a grade of B- or better in Pre-service Internship I.
- GPA of 2.500 or better in specialization courses, with grades of "C-" or better in each. Grades of "C-" or better are required for all other course work at UHCL.
- Successful completion of TCED 4010m TCED 4012 or TCED 4013.
- Maximum course load during Pre-service Internship II is 15 semester hours; therefore, no more than six additional semester hours may be taken during Pre-service Internship II, and they must meet no earlier than 7 p.m. See adviser for acceptable course work.
- Applications for Pre-service II Internship must be received in the CPDT (B1231-4) before the close of business on March 1 for fall and October 1 for spring. Mailed applications must be postmarked by September 26 for spring and February 24 for

fall. 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. Faxes and late applications will not be accepted.

If students denied admission to Pre-service Internships I or II want to reapply, they must do so by stated deadlines in subsequent semesters.

ADMISSION TO THE TEACHER EDUCATION PROGRAM FOR POST-DEGREE TEACHER CERTIFICATION STUDENTS

In order to enroll in pedagogy course work, students must be formally admitted to the Teacher Education Program. Enrollment in the SoE Teacher Education Program is contingent on the following:

1. Achieving the following passing scores on the three sections of the basic skills test (THEA/TASP) before applying to the program: Reading 260, Mathematics 230, and Writing 230, or have earned the equivalent of a U.S. master's or doctoral degree. Only THEA/TASP or Quick THEA/Quick TASP will be accepted.
2. Participating in the "ABC Workshop Presentation" (online at http://b3308-adm.uhcl.edu/School_of_Education/SoE/ABCWoksp/presentation/ABCWksp.htm).
3. Submitting the Teacher Education Program application with all required documents to the Office of Educator Certification. Faxes will not be accepted.
4. Achieving grades of "C-" or better in prerequisite courses EDUC 4130, SILC 4135 and INST 3133. Completing a college-level public speaking course with a grade of "C-" or better, or submitting a Speech Competency form signed by a UHCL instructor who has observed the public speaking skills of the students.
5. Achieving a GPA of > 2.500 overall or in the last 60 semester credit hours. GPA will be calculated by the School of Education after application is submitted.
6. Completing a minimum of 12 semester credit hours in the subject-specific content area for the certificate being pursued. This requirement may be waived by achieving a passing score on a TEA-approved content exam.
7. Being evaluated for certificate appropriateness by completing a written instrument of why the student wants to teach in this area of certification, and what makes the student a good candidate.
8. Receiving formal approval of the application for Admission to the Teacher Education Program.

Upon acceptance to the Teacher Education Program, SoE will establish an initial profile for each student with the State Board for Educator Certification (SBEC). All educator candidates in Texas are required to open an account upon entering a program. Students will receive an e-mail message from SBEC prompting them to activate their accounts and complete their profiles.

The final authority for admission and retention in the Teacher Education Program resides with the Dean of the SoE.

CONTENT COURSES WAIVED FOR POST-DEGREE TEACHER CERTIFICATES

Post-degree teacher certification students who pass the required Academic Specialization state assessment on the first attempt while approved by UHCL may have all of their respective academic specialization course work waived by UHCL, if they are pursuing one of the following certificates:

4-8 English Language Arts and Reading

4-8 English Language Arts and Reading/Social Studies

4-8 Mathematics

4-8 Science

4-8 Social Studies

8-12 English Language Arts and Reading

8-12 History

8-12 Life Sciences

8-12 Mathematics

8-12 Social Studies

Important Points to Know:

- If the students do not pass the content area state assessment specified on the plan on the first attempt, then all the academic specialization courses will remain on the plan and must be completed before certification recommendation will be made by UHCL.
- The following teaching certificate programs are NOT included in the course waiver policy: EC-6 Bilingual Generalist, EC-6 Generalist, EC-6 ESL Generalist, EC-12 Special Education.
- For the 4-8 Generalist program only: For each domain (English, Mathematics, Science and Social Studies) passed by the students on the first attempt on the 4-8 Generalist state assessment, the respective content courses will be waived.

SUPPLEMENTAL CERTIFICATES

A supplemental certificate is an area of concentration added to an existing certificate. A supplemental certificate gives educators the ability to teach the supplemental subject only at the grade level and in the area of their already existing teaching certificate. UHCL offers the following supplemental certificates:

- Bilingual Education
- English as a Second Language
- Gifted and Talented
- Special Education

BILINGUAL SUPPLEMENTAL CERTIFICATE (15 HOURS)

A supplemental certificate gives educators the ability to teach the supplemental subject only at the grade level and in the area of their already existing teaching certificate.

Students seeking the Bilingual Supplemental Certificate must hold a valid Texas teaching certificate and must complete the following required courses:

SILC 5031/SILC 4136
SILC 5032/SILC 4133
SILC 5130/SILC 4130
SILC 5134/SILC 4134
SILC 5531/SILC 4531
TCED 5010¹

¹Students not passing the Bilingual Education State Assessment by the final semester of this plan must also enroll in and successfully complete this course.

Students must pass the following State Assessments: Bilingual Education Supplemental- Spanish TExES, and the TOPT – Spanish or BTLPT- Spanish.

ESL SUPPLEMENTAL CERTIFICATE (15 HOURS)

A supplemental certificate gives educators the ability to teach the supplemental subject only at the grade level and in the area of their already existing teaching certificate. Students seeking the ESL Supplemental Certificate must hold a valid Texas teaching certificate and must complete the following required courses:

SILC 5032/SILC 4133
SILC 5033/SILC 4137
SILC 5130/SILC 4130
SILC 5134/SILC 4134
SILC 6032/SILC 4032
TCED 5010¹

¹Students not passing the ESL state assessment by the final semester of this plan must also enroll in and successfully complete this course.

Students must pass the English as a Second Language Supplemental TExES.

GIFTED AND TALENTED SUPPLEMENTAL CERTIFICATE (9-12 HOURS)

A supplemental certificate gives educators the ability to teach the supplemental subject only at the grade level and in the area of their already existing teaching certificate. Students seeking the Gifted and Talented Supplemental Certificate must hold a valid Texas teaching certificate and complete the following required courses:

TCED 5010¹
TCED 5630
TCED 5632
TCED 5634
TCED 5637²

¹ Students not passing the Gifted and Talented state assessment by the final semester of this plan must also enroll in and successfully complete this course.

² This course is required unless two years of full time experience teaching Gifted and Talented students can be verified.

Students must pass the Gifted and Talented Supplemental TExES.

SPECIAL EDUCATION SUPPLEMENTAL CERTIFICATE (19 HOURS)

A supplemental certificate gives educators the ability to teach the supplemental subject only at the grade level and in the area of their already existing teaching certificate. Students seeking the Special Education Supplemental Certificate must hold a valid Texas teaching certificate and must complete the following required courses:

SPED 5030
SPED 5131
SPED 5132
SPED 5133
SPED 5233
SPED 5331 or SPED 5332
TCED 5010¹

¹Students not passing the Special Education state assessment by the final semester of this plan must also enroll in and successfully complete this course.

Students must pass the Special Education Supplemental TExES.

MASTER TEACHER PLANS

A Master Teacher certificate added to an existing Texas teaching certificate designates the educator as having mastery of a particular subject area. It is the intent that the master teacher will serve as a resource to fellow teachers. UHCL offers the following Master Teacher certificate plans:

Master Mathematics Teacher
Master Reading Teacher
Master Technology Teacher

MASTER MATHEMATICS TEACHER CERTIFICATE (19 HOURS)

The Master Mathematics Teacher certificate program provides 19 credit hours of graduate courses, which is equivalent to 285 hours of continuing education units. Successful completion of course work related to the appropriate grade level will prepare students to pass the corresponding Master Mathematics Teacher state assessment, serve in a mentoring role, and serve as a resource for other teachers.

Each student's academic record will be audited to determine if any of the listed courses can be waived. Courses include:

EC-6 Level
MATH 3031
MATH 3032
MATH 3034
MATH 3038
MATH 5031 or MATH 3036
TCED 5010¹
TCED 5014
TCED 5233

4-8 Level
MATH 3033
MATH 3034
MATH 3035

MATH 3038
MATH 5031 or MATH 3036
TCED 5010¹
TCED 5014
TCED 5333

8-12 Level

MATH 4132
MATH 4434
MATH 5031
MATH 5033
MATH 5034
TCED 5010¹
TCED 5014
TCED 5236

¹Students not passing the corresponding Master Mathematics Teacher state assessment by the final semester of this plan must enroll in and successfully complete this course.

To be recommended for this certificate, students must successfully complete the required courses, successfully pass the Master Mathematics Teacher state assessment, provide a copy of a valid Texas teacher certificate and provide proof of three years of full-time teaching as Teacher of Record in a TEA-approved or out-of-state approved school.

MASTER READING TEACHER CERTIFICATE- FOR TEACHERS (13 HOURS)

The Master Reading Teacher certificate program for teachers provides 13 credit hours of graduate courses, which is equivalent to 195 hours of continuing education units.

Courses include:

LLS 5534
LLS 5738
LLS 6331
LLS 6732
TCED 5010¹
TCED 5014

¹Students not passing the Master Reading Teacher state assessment by the final semester of this plan must also enroll in and successfully complete this course.

To be recommended for this certificate, the educator must successfully complete the above courses, successfully pass the Master Reading Teacher state assessment, provide a copy of a valid Texas teacher certificate and provide proof of three years of full-time teaching as Teacher of Record in a TEA-approved or out-of-state approved school.

MASTER READING TEACHER CERTIFICATE- FOR READING SPECIALISTS (1 HOUR)

The Master Reading Teacher certificate program for Reading Specialists provides a 1 credit hour graduate course, which is equivalent to 15 hours of continuing education units. It is designed for students who already hold a Reading Specialist certificate. The course is

TCED 5014.

To be recommended for this certificate, educators must successfully complete the above course(s) and provide a copy of a valid Texas Teacher certificate showing proof of a Reading Specialist certificate.

MASTER TECHNOLOGY TEACHER CERTIFICATE (2-17 HOURS)

The Master Technology Teacher certificate provides 2-17 credit hours of graduate courses that are equivalent to 30-255 hours of continuing education credits. Successful completion of course work will prepare students to pass the Master Technology Teacher state assessment, to serve a mentoring role and support technology integration. Courses include:

Check prerequisites before enrolling in any courses.

INST 5011

INST 5035¹

INST 5130¹

INST 5333¹

INST 6031¹

INST 6037¹

TCED 5014

TCED 5010²

¹Course will be waived for students who already hold the 8-12 Technology Applications Certificate, EC-12 Technology Applications Certificate or a M.S. in Instructional Technology from UHCL.

²Students not passing the Master Technology Teacher state assessment by the time they successfully complete TCED 5014 must enroll in and successfully complete TCED 5010.

To be recommended for the certificate, the students must successfully complete the required courses, successfully pass the Master Technology Teacher state assessment, provide a copy of a valid Texas Teacher Certificate and provide proof of three years of full-time teaching as Teacher of Record in a TEA-approved or out-of-state approved school.

OTHER CERTIFICATES

UHCL CERTIFICATES (NOT STATE CERTIFICATES)

UHCL Bilingual Counselor Certificate (6 Hours)

Successful completion of this specialized certification will prepare students to work with English Language Learners (ELLs). This program will follow the standard school counseling sequence plus an additional six hours. Individuals who complete this program will be eligible to apply for school counseling certification from SBEC and receive a UHCL Bilingual Counselor certificate. The UHCL Bilingual Counselor certificate is not a state certificate.

Check prerequisites before enrolling in any courses.

Prerequisites:

Acceptance into the Counseling Program

Proof of fluency in English and a language other than English

Required:
COUN 5034
COUN 5035

**UHCL Online Distance Educator Professional Development Certificate
(9 Hours)**

Successful completion of the three course sequence (plus prerequisites, if required) will prepare students to systematically design, develop and deliver online courses and training programs. This certificate is offered through UHCL. It is not a state certificate.

Check prerequisites before enrolling in any courses.

Required (3 hours):
INST 6437

Choose 6 hours from the following:
INST 5135
INST 6037
INST 6137

UHCL Technology Applications (EC-8) Professional Development Certificate (3 Hours)

Successful completion of TCED 6031/INST 6031 will prepare students for the technology portion of the Pedagogy and Professional Responsibilities TExES state assessment which is required of all teachers. This certificate is offered through UHCL. It is not a state certificate.

Check prerequisites before enrolling in any courses.

Required (3 hours):
TCED 6031/INST 6031

**UHCL Performance Technology Professional Development Certificate
(12 Hours)**

Successful completion of the four course sequence (plus prerequisites, if required) will prepare students to apply human performance improvement tools and techniques to identify performance problems and select potential solutions. The certificate is offered through UHCL. It is not a state certificate.

Check prerequisites before enrolling in any courses.

Required (12 hours):
INST 5130
INST 5233
INST 5333
INST 5433 or INST 5131

'Add-On' Certificates

The State Technology Certificates have been approved by the Texas Higher Education Coordinating Board and are available to students who already hold a Texas teaching certificate.

EC-12 Technology Applications (12 Hours)

This program prepares students for the EC-12 Technology Applications TExES state assessment that will be required to teach technology application courses for grades EC-12.

Check prerequisites before enrolling in any courses.

INST 5035
INST 5130
INST 6031
INST 6037
TCED 5010¹

¹Students not passing the state assessments by the final semester of this plan must also enroll in and successfully complete this course.

8-12 Technology Applications (9 Hours)

This program prepares students for the 8-12 Technology Applications' TExES state assessment that will be required to teach technology application courses for grades 8-12.

Check prerequisites before enrolling in any courses.

INST 5035
INST 6031
INST 6037
TCED 5010¹

¹Students not passing the state assessments by the final semester of this plan must also enroll in and successfully complete this course.

GRADUATE PLANS

Master's degree plans are offered in the areas listed below. In several instances, certification plans requiring a master's degree are combined with master's degrees so that requirements for both can be achieved within a coordinated plan of studies.

Master of Science:

Counseling	Instructional Technology
Curriculum and Instruction	Multicultural Studies in Education
Early Childhood Education	Reading
Educational Management	School Library & Information Science

GENERAL REQUIREMENTS FOR GRADUATE STUDIES IN EDUCATION

Graduate Admissions Requirements

All students planning to pursue a master's degree or a certification plan which requires a master's degree, must hold a bachelor's degree from an accredited university and have either an overall GPA of 3.000 or greater or a GPA of 3.000 or greater in their last 60 hours. The last 60 hours chronologically, including the full semester in which the 60th hour appears, will be used to calculate the GPA in the last 60 hours.

Students who wish to be admitted to the counseling program must complete a special admission process described under the heading "Master of Science in Counseling" later in this section.

Students who wish to be admitted to the educational management program must meet additional admissions requirements described under the heading "Master of Science in Educational Management with Principal Certification" later in this section.

Students, including those who already hold a master's or doctoral degree, with an overall GPA of 2.500 or above, but less than 3.000 in the last 60 hours, may pursue a master's degree or certification plan requiring a master's degree by obtaining one of the following:

- A combined score of 900 or greater on the quantitative and verbal portions of the Graduate Record Examination (GRE) and a 3.5 or greater on the analytical writing portion of the GRE.
- A score of 390 or greater (36 or greater on the old scale) on the Miller Analogies Test (MAT).

Students with less than an overall 2.500 GPA in the last 60 hours, or 2.500-3.000 but not meeting the GRE or MAT requirements listed above, will not be allowed to pursue a master's degree or a certification plan requiring a master's degree, except by sponsored admissions. A full-time SoE faculty member may sponsor four students a year for admission to a master's degree or a certification plan requiring a master's degree. To be considered for sponsored admission, students must have submitted a GRE or MAT score, but no minimum score requirements are specified. The faculty member's recommendation for sponsorship will be based on consideration of the students' previous academic record, standardized test scores, leadership potential, professional experiences and such other factors as the individual faculty member may deem predictive of potential success in a graduate plan at UHCL. The "Request for Sponsorship" form is available in the SoE Office of the Associate Dean. A sponsoring faculty member must complete and sign the form. In sponsoring students, faculty members agree to provide advisement support for those students to enhance the likelihood of success in the students' academic plans.

In addition to the other admission criteria listed above, international graduate students whose primary language is other than English must meet the UHCL admission requirement on the Test of English as a Foreign Language (TOEFL).

Credits earned prior to formal admission to a master's degree or a certification plan requiring a master's degree as defined under this policy may not be credited toward that degree or certificate.

Assignment of Graduate Advisers

Faculty advisers are assigned at the time of admission to a graduate degree or a certification plan requiring a master's degree. Students should contact their faculty advisers as soon as possible following admission to the SoE to obtain a graduate candidate plan of study.

Graduate Candidate Plan of Study (CPS)

Graduate degree-seeking students in the SoE must have on file in the Office of Educator Certification an approved CPS, which will include a minimum of 36 hours of course work. The CPS will be developed jointly by the students and their advisers and approved by the Associate Dean. These documents specify the course work that

must be completed in order to fulfill the requirements for the graduate degree or the certification plan requiring a master's degree.

Age of Course Work for Graduate Degrees

Course work, whether transfer or resident, may not be used for degree purposes if it is more than five years old at the time the degree is to be conferred, unless prior approval is given by the Associate Dean.

Course Credit and Residency Requirements

A maximum of six hours of approved 4000-level courses may be used toward a 36-hour degree. The final 24 hours of course work must be taken in residence at UHCL. A minimum of 30 hours must be taken from 5000 and 6000-level courses.

Correspondence or extension credits may not be applied toward a graduate degree. EDUC 6032 is the prerequisite to EDUC 6033 and EDUC 6033 is to be completed before students register for Master's Options 1 or 2. Students must have an approved Master's Thesis/Project form on file with the SoE Office of the Associate Dean prior to enrolling in either a master's project or master's thesis.

Transfer of Credit

Only graduate courses in which grades of "B-" or better were earned may be considered for transfer credit toward a master's degree. Grades of "C+" or below or grades of Satisfactory ("S"), Passing ("P") or Credit ("CR") will not be accepted toward meeting requirements for the master's degree. In most instances, the transfer of credit is limited to six hours of course work but may not include more than 12 hours.

Master's Degree Options

One of the following options must be selected for each plan leading to a master's degree (not all options apply to all master's degree plans):

Option 1: Master's Thesis requires continuous registration in the thesis research course, EDUC 6939, during each fall and spring semester until completion. Students must register for a minimum of six hours of thesis credit and no more than six hours of thesis may apply as credit toward a degree. If continuous registration in the master's thesis course is not maintained during fall and spring semesters, previously accumulated master's thesis credits will not count toward the master's degree.

Option 2: Master's Project requires continuous registration in the project course, EDUC 6839, during each fall and spring semester until completion. Students must register for a minimum of six hours of project credit and no more than six hours of project may apply as credit toward a degree. If continuous registration in the master's project course is not maintained during fall and spring semesters, previously accumulated master's project credits will not count toward the master's degree.

Option 3: Master's Internship/Practicum requires application for admission by June 8 for the fall semester, October 1 for the spring semester and March 1 for the summer session.

Option 4: The Extended Course option requires an additional six hours of course work and successful completion of a Comprehensive Examination. The application to take the Comprehensive Examination must be submitted by August 10 for fall, February 10 for spring and May 10 for summer.

Detailed requirements and procedures for satisfying the Master's Degree Options are contained in the Master's Options Guidelines booklet, which may be obtained through the SoE Office of the Associate Dean.

Age of Standard Certification Course Work for Students Who Hold a Master's Degree

All course work, whether resident or transfer, may not exceed five years in age at the time of recommendation for a certificate requiring a master's degree.

Grade Point Requirements for Standard Certificates Requiring a Master's Degree

Students seeking a certificate requiring a master's degree must maintain at least a "B" (3.000) average in certification course work to be recommended for any certification. Only grades of "C-" or better are accepted for credit toward any professional certificate.

Transfer Credit toward a Certificate Requiring a Master's Degree

Only course work in which a grade of "B-" or above was earned from an accredited institution may be considered for transfer credit. A maximum of twelve credit hours may be transferred toward the certificate plan. Any required practicum or internship experiences must be completed at UHCL in order to be recommended for that certificate by the SoE.

Deadlines

Applications for graduate practica and internships may be obtained from and returned to B1231. These applications must be received by June 8 for the fall semester, October 1 for the spring semester and March 1 for the summer session. Students are authorized for enrollment in either the practicum or the internship as soon as possible after all requirements have been verified.

Students are referred to the Master's Option Guidelines booklet for specific information regarding theses, projects, internships/practica and comprehensive examinations. This booklet is available in the Office of the Associate Dean. Completed theses and projects are due in that office by the posted deadlines.

MASTER'S DEGREE PLANS

MASTER OF SCIENCE IN COUNSELING

The graduate plan in Counseling leads to the master of science degree. Students seeking this degree in Counseling may, depending on their career goals, select degree plans that meet the academic qualifications for the School Counselor Standard Certificate (EC-12) or Licensed Professional Counselor (LPC).

The combined master's degree and School Counselor Standard Certificate plan require a minimum of 51 hours. To be eligible at the time of certification recommendation, students must have a master's degree, a valid Texas teaching certificate, a passing score on the state assessment and two years of successful full-time approved classroom teaching experience.

Students who already possess the master's degree may elect to pursue school counselor certification only. School counselor certification requires a minimum of 42 hours, including all required COUN courses, plus some electives.

Students who wish to pursue LPC certification must complete the master's degree plan with a minimum of 54 hours. To be eligible to receive the LPC, graduates must also document three years, or 3000 clock hours, of post-master's supervised counseling experience and pass the state licensure examination.

The opportunity to complete the academic requirements for the LPC or the School Counselor Standard Certificate through the counseling plan is restricted to students admitted to the counseling plan. Students who are not admitted to the counseling plan may enroll in counseling courses only with prior approval of the plan coordinator. In each case, students must meet the stated course prerequisites and space must be available in the course.

Admission Requirements

Students who meet the graduate admissions requirements to the SoE (see Graduate Admissions Requirements) must meet additional requirements prior to applying for candidacy to the counseling plan. Counseling applications are available on the SoE Web site at

http://prtl.uhcl.edu/portal/page/portal/SOE/Forms/form_files/Counseling_1.pdf.

Each application for candidacy must include:

1. Completed application form.
2. Brief essay (500-800 words) stating the student's career goals and reasons for applying to this plan.
3. Documentation of completion of the Graduate Record Examination (GRE).
4. Official transcripts from all universities attended. The last 60 hours, including the full semester in which the 60th hour appears, will be used to calculate the GPA.
5. Three professional recommendations discussing potential ability in the counseling field.
6. Student's self-rating sheet.

Applicants who submit properly completed applications may be invited to participate in a structured interview. The admissions process is conducted during the fall and spring semesters of each year. Application forms and instructions may be obtained in the SoE Office of Academic Advising. Questions about the content of the application packet and process should be directed to the Office of Academic Advising. Applicants are solely responsible for ensuring that their packets of completed application forms, essays, supporting transcripts, documented GRE scores, letters of recommendation and self-rating sheet are received by the Office of Academic Advising on or before the deadline: October 1 for spring entry and June 1 for fall entry. 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. Faxes and late applications will not be accepted.

Applicants will be contacted to schedule an interview with the admissions committee. Notification of conditional admissions decisions will be sent to applicants in December

for spring entry and August for fall entry. If conditionally admitted to the counseling program, students must attend a mandatory orientation.

Students who receive written notice that their packets are incomplete must write a letter requesting reactivation of their counseling application and submit the requested documentation to B1231 by the deadlines given above in order to be reconsidered for the plan.

Restricted Courses

All counseling plan (COUN) courses are restricted to students who have been formally admitted to the counseling plan, unless otherwise approved.

LICENSED PROFESSIONAL COUNSELOR PREPARATION (FOR CANDIDATES ALREADY HOLDING A MASTER'S DEGREE IN A COUNSELING RELATED FIELD)

To receive LPC certification, one must also complete all post graduate criteria as outlined by the LPC board, including temporary certification, 3000-hours supervised post-master's internship, and passing the National Counselor Examination.

Check prerequisites before enrolling in any courses.

Counseling Core (30 hours):

COUN 5131

COUN 5231

COUN 5432

COUN 6232

COUN 6334

COUN 6435¹

COUN 6531¹

COUN 6532

COUN 6533

COUN 6731

Capstone experience (6 hours):

COUN 5739¹

COUN 6739¹

¹ Grades must be "B-" or better.

MASTER OF SCIENCE IN COUNSELING WITH LICENSED PROFESSIONAL COUNSELOR PREPARATION

To receive LPC certification, one must also complete all post graduate criteria as outlined by the LPC board, including temporary certification, 3000-hours supervised post-master's internship and passing the National Counselor Examination.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

COUN 6030

COUN 6031

COUN 6032¹

COUN 6033

Counseling Core (30 hours):

COUN 5131
COUN 5231
COUN 5432
COUN 6232
COUN 6334
COUN 6435¹
COUN 6531¹
COUN 6532¹
COUN 6533
COUN 6731

Advised electives (3 hours):

COUN 5034
COUN 5035
COUN 5931
COUN 5939
COUN 6341
COUN 6343
COUN 6534

Capstone experience (6 hours):

COUN 5739¹
COUN 6739¹

¹ Grades must be "B-" or better.

**SCHOOL COUNSELOR CERTIFICATION FOR STUDENTS HOLDING A
MASTER'S DEGREE**

Check prerequisites before enrolling in any courses.

Counseling Core (33-34 hours):

COUN 5010¹
COUN 5131
COUN 5231
COUN 5432
COUN 6232
COUN 6334
COUN 64352
COUN 6531
COUN 6532²
COUN 6533
COUN 6534
COUN 6731

Advised elective (3 hours):

COUN 5034
COUN 5035
COUN 5931
COUN 5939
COUN 6033
COUN 6331
COUN 6341
COUN 6343

Capstone experience (6 hours):

COUN 5739²

COUN 6739²

¹Students not passing the state assessments by the final semester of this plan must also enroll in and successfully complete this course.

² Grades must be "B-" or better.

MASTER OF SCIENCE IN COUNSELING WITH SCHOOL COUNSELOR CERTIFICATION

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

COUN 6030

COUN 6031

COUN 6032¹

COUN 6033

Counseling Core (33-34 hours):

COUN 5010²

COUN 5131

COUN 5231

COUN 5432

COUN 6232¹

COUN 6334

COUN 6435¹

COUN 6531

COUN 6532¹

COUN 6533

COUN 6534

COUN 6731

Capstone experience (6 hours):

COUN 5739¹

COUN 6739¹

¹Grades must be "B-" or better.

²Students not passing the state assessments by the final semester of this plan must also enroll in and successfully complete this course.

UHCL BILINGUAL COUNSELOR CERTIFICATE

Although SBEC does not have a separate specialized certification to train bilingual students to work with English Language Learners (ELLs), UHCL has developed a program tailored to train teachers who are bilingual to work with this population. For more information about this program, please see the Other Certificates section of the catalog.

MASTER OF SCIENCE IN CURRICULUM AND INSTRUCTION

The graduate plan in Curriculum and Instruction leads to the master of science degree. This degree consists of a minimum of 36 semester hours and is designed for practicing teachers whose career plans remain focused on classroom instruction.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032
EDUC 6033
SILC 6030
TCED 6031/INST 6031

Curriculum and Instruction Core (9 hours):

TCED 5030
TCED 5031
TCED 5036

9 hours from an area of specialization chosen in consultation with your assigned Faculty Advisor.

Master's Degree Options (6 hours):

Option 1: EDUC 6939,
or Option 2: EDUC 6839,
or Option 3: TCED 6739, plus 3 hours of electives.

MASTER OF SCIENCE IN EARLY CHILDHOOD EDUCATION

The graduate plan in Early Childhood Education leads to the master of science degree. Students will be subject to an interview with members of the Early Childhood Education program prior to admission. Students seeking this degree must complete at least 36 hours of credit. Within the degree, there are three tracks of Early Childhood Education: master's degree, master's degree focusing on young children with disabilities and master's degree with EC-6 certification.

Check prerequisites before enrolling in any courses.

Required Professional Education Core (12 hours):

EDUC 6032
EDUC 6033
INST 6031¹
SILC 6030

¹Students in Track C must take TCED 6031 instead of INST 6031.

Required Early Childhood Core (9 hours):

ECED 5031
ECED 5032
ECED 5131

Track A - Master's Degree Only

Advised Electives (9 hours)

ECED 5033
ECED 5132
ECED 5133
ECED 5331
ECED 5332¹
ECED 5333
ECED 5231
ECED 5335
ECED 5737

Master's Degree Options (6 hours):

Option 1: EDUC 6939 or

Option 2: EDUC 6839 or

Option 3: ECED 6739 plus 3 hours of an approved elective (Internship requires prior completion of a minimum of 9 hours of the Professional Education Core and a minimum of 15 ECED hours completed from the 21 ECED hours on the plan).

Track B - Master's Degree with Focus on Young Children with Disabilities

Required (12 hours)

ECED 5332

ECED 5333

ECED 5737

SPED 5131

Master's Degree Options (6 hours):

ECED 6739 plus 3 hours of an approved elective (Internship requires prior completion of a minimum of 9 hours of the Professional Education Core and a minimum of 15 ECED hours completed from the 21 ECED hours on the plan).

Track C - Master's Degree with EC-6 Certification (39 hours)

Includes initial teaching certification (see academic advising for graduate teacher certification plan).

Required (12 hours)

ECED 5033

ECED 5132

ECED 5331

ECED 5335

Master's Degree Options (6 hours):

ECED 6739 plus 3 hours of an approved elective (Internship requires prior completion of a minimum of 9 hours of the Professional Education Core and a minimum of 15 ECED hours completed from the 21 ECED hours on the plan).

Additional Certification Courses (36 hours):

EDUC 5130/EDUC 4130

EDUC 5132/EDUC 4132

LLS 5131/LLS 4434

LLS 5533/LLS 4435

SPED 5030/SPED 4030

TCED 5010¹/TCED 4010¹

TCED 5231/TCED 4231

TCED 5232/TCED 4232

TCED 5233/TCED 4233

TCED 4738 and TCED 4798 or TCED 4768/TCED 4769

¹Students not passing the state assessments by the final semester of this plan must also enroll in and successfully complete this course.

MASTER OF SCIENCE IN EDUCATIONAL MANAGEMENT WITH PRINCIPAL CERTIFICATION

The graduate plan in Educational Management leads to the master of science degree with principal certification, if principal certification requirements are met. The master's degree in Educational Management consists of 39 hours of graduate course

work. Requirements for the master's degree are completion of the Professional Education Core (12 hours), the Administration Core (24 hours) and the Capstone Experience/Graduate Internship (3 hours). Students will be eligible to register for graduate internship after they have successfully completed at least 27 hours of the master's degree. Graduate Internship is only offered in the fall and spring semesters. An internship application form must be completed and submitted by June 8 for fall semester and October 1 for spring semester in order to enroll in ADSU 6739.

In order to fulfill principal certification requirements, students must successfully complete the 39 hours of master of science degree course work in educational management. Students must also have a valid Texas Teaching Certificate, two years of successful full-time classroom teaching in an approved accredited school and a passing score on the Principal state assessment.

Students who meet the graduate admissions requirements to the SoE (see Graduate Admissions Requirements) must meet additional requirements prior to being admitted to the educational management program. Each applicant must provide:

- Documentation of the completion of the Graduate Record Examination (GRE).
- Proof of having a valid Texas Teaching Certificate.
- A letter of support from a school building administrator.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032
EDUC 6033
INST 6031
SILC 6030

Administration Core (24 hours):

ADSU 6030
ADSU 6132
ADSU 6233
ADSU 6235
ADSU 6436
ADSU 6437
ADSU 6533
ADSU 6638

Other Required Courses (1 hour):

ADSU 5010²

Capstone Experience (3 hours):

ADSU 6739¹

¹Internship application form must be completed and submitted by June 8 for fall semester and October 1 for spring semester in order to enroll in ADSU 6739. Students will be eligible to register for ADSU 6739 after they have successfully completed at least 27 hours of the master's degree.

²Students not Passing or taking the Principal Sate Assessment by the final semester of this plan must enroll in and successfully complete this course. Students passing the State Assessment by the final semester will have this course waived.

PRINCIPAL STANDARD EC- 12 CERTIFICATE FOR STUDENTS HOLDING A MASTER'S DEGREE

The principal certificate plan consists of 27 hours of graduate course work. Requirements for the plan are completion of the Administration Core (24 hours) and the Capstone Experience/Graduate Internship (3 hours). Students will be eligible to register for Graduate Internship after they have successfully completed at least 18 hours of the plan. Students are reminded that the graduate internship is only offered in the fall and spring semesters. An internship application form must be completed and submitted by June 8 for fall semester and October 1 for spring semester in order to enroll in ADSU 6739.

In order to fulfill principal certification requirements, students must successfully complete the 27 hours of course work, have a valid Texas teaching certificate, two years of successful full-time classroom teaching in an approved accredited school, and pass the Principal state assessment.

Check prerequisites before enrolling in any courses.

Administration Core (24 hours):

ADSU 6030
ADSU 6132
ADSU 6233
ADSU 6235
ADSU 6436
ADSU 6437
ADSU 6533
ADSU 6638

Other Required Courses (1 hour):

ADSU 5010²

Capstone Experience (3 hours):

ADSU 6739¹

¹Internship application form must be completed and submitted by June 8 for fall semester and October 1 for spring semester in order to enroll in ADSU 6739. Students will be eligible to register for ADSU 6739 after they have completed at least 18 hours of the certificate.

²Students not Passing or taking the Principal Sate Assessment by the final semester of this plan must enroll in and successfully complete this course. Students passing the State Assessment by the final semester will have this course waived.

PROBATIONARY PRINCIPAL CERTIFICATION

A one-year probationary principal certificate is available to candidates who hold principal or assistant principal positions and meet the requirements of the UHCL School of Education. The probationary principal certificate may be renewed annually for a maximum of two years. For information concerning the requirements to obtain and/or renew the probationary certificate, visit with the UHCL School of Education Office of Educator Certification.

SUPERINTENDENT CERTIFICATION

The superintendent certification plan requires the completion of 15 hours of specified course work (see below) after finishing the principal certification plan. A passing score on the Superintendent state assessment is required prior to recommendation for this certificate.

Admissions Requirements

Students will be asked to provide the following documentation to their faculty adviser upon admission to the program and to the Office of Educator Certification at the time of certification recommendation:

- Evidence of a valid Texas Principal or Mid-Management Administrator's Certificate.
- Proof of current service as a school administrator or written approval from the Program Chair of Educational Leadership.

Check prerequisites before enrolling in any courses.

The following courses are on the superintendent certification plan:

EDLS 7636
EDLS 7637
EDLS 7638
EDLS 7833
EDLS 7837

UHCL BILINGUAL ADMINISTRATOR CERTIFICATE

Although SBEC does not have a separate specialized certification to train bilingual students to work with English Language Learners (ELLs), UHCL has developed a program tailored to prepare future school administrators who are bilingual to work with this population. For more information about this program, please see the Other Certificates section of the catalog.

MASTER OF SCIENCE IN INSTRUCTIONAL TECHNOLOGY

The graduate plan in Instructional Technology leads to the master of science degree that prepares graduates to systematically design training and instruction. One of the requirements for the successful completion of the MS in INST will be an electronic portfolio. INST students should enroll in INST 5131, Trends and Issues, as soon as possible since it will be the course in which students create the template and discover what to include in the portfolio. Students should contact their faculty adviser for additional information and deadlines.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032
EDUC 6033
INST 6031
SILC 6030

Instructional Technology Core (12 hours):

INST 5130
INST 5131
INST 5333
INST 5433

Electives:

Choose 2 elective courses as advised.

Master's Degree Options (6 hours):

Option 1: EDUC 6939- Master's Thesis Research (3 hrs) Minimum of two semesters required for a maximum of six hours, with continuous registration until completion; or

Option 2: EDUC 6839- Master's Project (3 hrs) Minimum of two semesters required for a maximum of six hours, with continuous registration until completion; or

Option 3: INST 6739 and another INST elective course (Internship requires prior completion of all Professional Education Core courses, Instructional Technology Core courses and at least one INST elective from the plan); or

Option 4: Master's Comprehensive Examination and two additional INST Electives courses (6 hrs)

The degree may be completed entirely online with one exception. Online students might not be able to take Master's Degree Option 3: INST 6739 (Internship) for their capstone experience if the proposed internship site is 50 or more miles from the UHCL campus. Students in this situation would most likely be advised to pursue Options 2 or 4.

For additional information regarding these plans, please contact a faculty adviser.

MASTER OF SCIENCE IN MULTICULTURAL STUDIES IN EDUCATION

The graduate plan in Multicultural Studies in Education leads to the master of science degree. This interdisciplinary plan is designed so that students will be prepared comprehensively at an advanced level to deal effectively with multicultural issues in schools. The plan requires a minimum of 36 hours, including the following requirements:

Check prerequisites before enrolling in any courses.

Education Core (12 hours):

EDUC 6032
EDUC 6033
SILC 6030
TCED 6031/INST 6031

Track A - Bilingual Education (12 hours):

SILC 5031
SILC 5032
SILC 5134
SILC 5531

Support Area (6 hours):

SILC 5130

Choose one course from:

170 School of Education

SILC 5034
SILC 5035
SILC 5036
Advised elective

Other course if seeking certification (1 hour):

TCED 5010¹

Master's Degree Options (6 hours):

EDUC 6839, EDUC 6939 or Comprehensive Examination plus six additional hours of approved course work

¹Students not passing the Bilingual Education or ESL state assessments by the final semester of this plan must also enroll in and successfully complete this course.

Track B - English as a Second Language (12 hours):

SILC 5032
SILC 5033
SILC 5134
SILC 6032

Support Area (6 hours):

SILC 5130

Choose one course from:

SILC 5034
SILC 5035
SILC 5036
Advised Elective

Other course if seeking certification (1 hour):

TCED 5010¹

Master's Degree Options (6 hours):

EDUC 6839, EDUC 6939 or Comprehensive Examination plus six additional hours of approved course work

¹Students not passing the Bilingual Education or ESL state assessments by the final semester of this plan must also enroll in and successfully complete this course.

Track C - Multicultural Education (12 hours):

SILC 5034
SILC 5035
SILC 5036
Advised elective

Support Area (6 hours):

Advised electives

Other course, if seeking certification (1 hour):

TCED 5010¹

Master's Degree Options (6 hours):

EDUC 6839, EDUC 6939 or Comprehensive Examination plus six additional hours of approved course work

¹Students not passing the Bilingual Education or ESL state assessments by the final semester of this plan must also enroll in and successfully complete this course.

At least 15 hours of this master's degree may also fulfill the course requirements for the Bilingual Education or the English as a Second Language supplemental certificate. A supplemental certificate gives educators the ability to teach the supplemental subject only at the grade level and in the area of their already existing teaching certificate.

MASTER OF SCIENCE IN READING

The graduate plan in Reading leads to the master of science degree. The plan consists of a minimum of 36 semester hours.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032
EDUC 6033
SILC 6030
TCED/INST 6031

Required Courses (12 hours):

LLS 5532 or LLS 5533
LLS 5534
LLS 5738
LLS 6331 or SILC 6032

Electives (12 hours):

Advised hours from list below:

LLS 5131
LLS 5134
LLS 5135
LLS 5531
LLS 5532
LLS 5533
LLS 5635
LLS 5636
LLS 5736
LLS 5737
LLS 5931

Master's Degree Options (6 hours):

LLS 6732 and LLS 6639 (requires prior completion of LLS 6732, 12 hours of LLS courses and all of the Professional Education Core) or

or

EDUC 6839 or EDUC 6939

MASTER OF SCIENCE IN READING WITH READING SPECIALIST STANDARD EC- 12 CERTIFICATE

This graduate plan in Reading leads to the master of science degree with a Reading Specialist Standard Certificate (EC-12). Students seeking this certification must hold a valid Texas teaching certificate and must be able to verify a minimum of two years full-time approved successful teaching experience. A passing score on the Reading Specialist TExES is required. The plan consists of a minimum of 36 semester hours.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032
EDUC 6033
TCED/INST 6031
SILC 6030

Required Reading Courses (12 hours):

LLS 5532 or LLS 5533

LLS 5534

LLS 5738

LLS 6331 or SILC 6032

Electives (6 hours):

LLS 5131 and LLS 5532/LLS 5533

or

LLS 5635 and LLS 5636

Other course (1 hour):

TCED 5010¹

Master's Degree Options (6 hours):

LLS 5736 and LLS 5737

or

LLS 6732 and LLS 6639 (requires prior completion of LLS 6732 and 12 hours of LLS courses)

¹Students not passing the Reading Specialist state assessment by the final semester of this plan must also enroll in and successfully complete this course.

READING SPECIALIST STANDARD EC- 12 CERTIFICATE FOR STUDENTS HOLDING A MASTER'S DEGREE

This graduate certification plan leads to the Reading Specialist Standard (EC-12) Certificate. Students seeking this certification must hold a master's degree, a valid Texas teaching certificate and verify a minimum of two years approved successful full-time teaching experience. A passing score on the Reading Specialist TExES is required. The plan consists of a minimum of 24 semester hours.

Check prerequisites before enrolling in any courses.

Required Reading courses (12 hours):

LLS 5532 or LLS 5533

LLS 5534

LLS 5738

LLS 6331 or SILC 6032

Electives (6 hours):

LLS 5635 and LLS 5636

or

LLS 5131 and LLS 5532/LLS 5533

Other course (1 hour):

TCED 5010¹

Capstone Experience (6 hours):

LLS 5736 and LLS 5737 or LLS 6732

and

LLS 6639 (requires prior completion of LLS 6732 and 12 hours of LLS courses)

¹Students not passing the Reading Specialist state assessment by the final semester of this plan must also enroll in and successfully complete this course.

MASTER OF SCIENCE IN SCHOOL LIBRARY AND INFORMATION SCIENCE WITH SCHOOL LIBRARIAN STANDARD CERTIFICATE (EC-12)

The graduate plan in School Library and Information Science leads to the master of science degree. Students completing this degree plan may also be eligible for certification as school librarians. Students seeking this certification must hold a valid Texas teaching certificate and must be able to verify a minimum of two years successful full-time classroom teaching experience in an approved accredited school. A passing score on the School Librarian state assessment is required prior to recommendation for this certificate. The plan consists of 39 semester hours.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032

EDUC 6033

INST 6031

SILC 6030

School Library Core (24 hours):

LLS 5532

LLS 5533

LLS 6131

LLS 6132

LLS 6133

LLS 6231

LLS 6334

LLS 6336

Capstone Experience (3 hours):

LLS 6739

Other course (1 hour):

TCED 5010¹

¹Students not passing the School Librarian state assessment by the final semester of this plan must also enroll in and successfully complete this course.

SCHOOL LIBRARIAN STANDARD CERTIFICATE (EC-12) FOR STUDENTS HOLDING A MASTER'S DEGREE

This 27 hour certificate is intended for students holding a master's degree and planning careers in elementary or secondary school libraries. Students planning careers in other library settings should seek special advisement.

Check prerequisites before enrolling in any courses.

School Librarian Core (24 hours):

LLS 5532

LLS 5533

LLS 6131

LLS 6132

LLS 6133

LLS 6231

LLS 6334

LLS 6336

Capstone Experience (3 hours):

LLS 6739

Other courses (1 hour):

TCED 5010¹

¹Students not passing the School Librarian state assessment by the final semester of this plan must also enroll in and successfully complete this course.

To be recommended for the School Librarian certificate, students must complete the above program, hold a valid Texas teaching certificate, verify two years of successful full-time teaching experience in a public or approved accredited private school, hold a master's degree and pass the School Librarian state assessment.

DUAL MASTER OF SCIENCE DEGREES

Master of Science in Reading with Reading Specialist Standard Certificate (EC-12) and Master of Science in School Library and Information Science with School Librarian Standard Certificate (EC-12)

The dual degree plan in Reading and School Library and Information Science leads to two master of science degrees. Students completing this dual degree plan will also be eligible for certification as School Librarians and Reading Specialists. Students seeking these certifications must hold a valid Texas Teaching Certificate and must be able to verify a minimum of two years full-time approved successful teaching experience. Passing scores on the Reading Specialist state assessment and on the School Librarian state assessment are required. The dual degree plan consists of 60 semester hours.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032

EDUC 6033

INST 6031

SILC 6030

Required Reading Courses (12 hours):

LLS 5533

LLS 5534

LLS 5738

LLS 6331

School Library Core (21 hours):

LLS 5532

LLS 6131

LLS 6132

LLS 6133

LLS 6231

LLS 6334

LLS 6336

Required Reading Electives (6 hours):

LLS 5131 and LLS 5137

or

LLS 5635 and LLS 5636

Reading Capstone Experience (6 hours):

LLS 6732

LLS 6639 (requires prior completion of LLS 6732, 12 hours LLS and all of the Professional Education core)

Library Capstone Experience (3 hours):

LLS 6739

Other course (1 hour):

TCED 5010¹

¹Students not passing the School Librarian state assessment and the Reading Specialist state assessment by the final semester of this plan must also enroll in and successfully complete this course.

DOCTORAL DEGREE PLAN

DOCTOR OF EDUCATION IN EDUCATIONAL LEADERSHIP

The focus of the EdD is the preparation of individuals for service as educational leaders in educational organizations, in particular, Pre-K to university educational settings. The intent is to provide such individuals with the advanced knowledge and skills necessary to generate and apply research for solving the problems faced by educational leaders.

Prior to admission to the EdD program, the student is expected to have:

1. Completed a master's degree and the equivalent of UHCL's EDUC 6032, EDUC 6033, INST 6031 and SILC 6030.
2. Completed UHCL Admissions Application.
3. Official transcripts from each accredited institution attended sent to the Office of Admissions.
4. A combined score of 1000 on the Verbal and Quantitative portions of the Graduate Record Examination (GRE) and a minimum score of 4.0 on the Analytical Writing portion of the GRE. The GRE must have been taken within the last five years.
5. Provided evidence of at least three years of work experience in an educational setting.
6. Provided three reference forms from persons who can address students' performance in graduate studies and potential for educational leadership.
7. Provided a letter from an employer confirming support of the applicant's pursuit of the EdD and support for at least one field placement in the employing organization.

Other information may be required; contact the Office of Academic Advising for details.

If an applicant does not meet one or more of the admission requirements, but can provide letters testifying to the applicant's strong leadership qualities, provisional admission may be granted.

Once a student is admitted, any course in which a student makes a grade of "C-" or below cannot be counted on a doctoral program. Doctoral students may count one

course on their program with a grade of either "C+" or "C." All other grades must be "B-" or greater. An overall grade point average of 3.000 must be maintained. The structure of the EdD program is as follows:

Check prerequisites before enrolling in any courses.

Leadership Core:

EDLS 7238
EDLS 8030
EDLS 8130
EDLS 8132
EDLS 8230
EDLS 8330
EDLS 8430

Research Core:

EDLS 7031
EDLS 7032
EDLS 7033
EDLS 7130

Communication Core:

EDLS 7030
EDLS 7034
EDLS 7035

Specialization:

12 hours from one area of specialization as follows:

Superintendent

EDLS 7636
EDLS 7637
EDLS 7638
EDLS 7833
EDLS 7837

Special Populations

EDLS 7036
EDLS 7037
EDLS 7038
EDLS 7039

Curriculum & Instruction

EDLS 7136
EDLS 7137
EDLS 7138
EDLS 7139

Reading

EDLS 7131
EDLS 7132
EDLS 7133
EDLS 7134
EDLS 7135

Counseling

EDLS 7230
EDLS 7231
EDLS 7232
EDLS 7233

Research Design, Measurement and Statistics

EDLS 7330
EDLS 7331
EDLS 7332
EDLS 7333

Dissertation^{1,2}:

EDLS 8939
EDLS 8969
EDLS 8999

Those interested in applying should contact the Office of Academic Advising in Bayou 1231 (by phone at 281-283-3600 or by e-mail at education@uhcl.edu). The deadline for application is March 15; however, early admission is available. Contact the Office of Academic Advising for details.

¹Students must register for dissertation each long semester until completion. Only 12 hours of dissertation may count in the program.

²Before being permitted to register for dissertation courses, a doctoral student must have advanced to candidacy.

SCHOOL OF EDUCATION COURSES

ADMINISTRATION AND SUPERVISION COURSES

ADSU 5010: Professional Preparation Seminar

This course is designed to assist students in the principal certification program to understand the State certification standards for successful entry into their chosen educational field. This course may be waived upon evidence of candidate earning a passing score on the TExES.

Prerequisite: An approved, signed degree or certification plan on file in the SoE.

ADSU 5931: Research Topics in Educational Leadership

Identified by specific title each time course is offered.

ADSU 5939: Independent Study in Educational Leadership

Prerequisite: Approval of instructor and Associate Dean.

ADSU 6030: Introduction to Educational Leadership

Principles of educational leadership, structure and governance of public education, interpersonal relations and communication skills.

ADSU 6130: Administrative Systems

Technological applications for school administrative systems focusing on communication, presentation and management systems.

Prerequisite: ADSU 6030.

ADSU 6132: Curriculum

Research, theory and practice, pertaining to the design, implementation, analysis and evaluation of the school curriculum.

Prerequisite: ADSU 6030.

ADSU 6233: Principalship

Technical, human and conceptual skills required of building-level school administrators.

Prerequisite: ADSU 6030.

ADSU 6235: Administration of Special Programs

Program planning, implementation, evaluation and improvement through study and development of special programs that meet local, state and national needs and requirements.

Prerequisite: ADSU 6030.

ADSU 6333: Instructional Leadership

The course content has been approved by the Texas Education Agency and meets the guidelines for Instructional Leadership Training required for Administrators and Supervisors. The components of the course are: leadership, instructional effectiveness, observing and conferencing with teachers and lesson design.

Prerequisite: ADSU 6030.

ADSU 6432: Management Theory

Adaptations of the fundamentals of management to program development, personnel and fiscal resources.

Prerequisite: ADSU 6030.

ADSU 6434: Administration of School Personnel

Focuses on the various aspects of personnel administration in the educational setting to include creating a meaningful work environment, to increase motivation and job satisfaction and developing effective and interactive employee communications.

Prerequisite: ADSU 6030.

ADSU 6436: School Resource Management

Fundamentals of planning, cost accounting, quantitative evaluation of needs and resources and application of prudent business practices to school finance.

Prerequisite: ADSU 6030.

ADSU 6437: School Law

State and federal laws and court decisions affecting the authority, responsibilities, liabilities and appeals related to the operations of public school systems.

Prerequisite: ADSU 6030.

ADSU 6533: Appraisal of Teaching

The course follows the official guidelines for training appraisers as required for the Texas Teacher Appraisal System. Students are also required to do in-depth research on professional growth and/or development as it relates to evaluation.

Prerequisite: ADSU 6030.

ADSU 6537: Interpersonal Communication

This course, designed for students of school administration, focuses on understanding different communication styles, developing skills for speaking and listening effectively, improving written communications and mastering the steps of effective group presentations.

Prerequisite: ADSU 6030.

ADSU 6538: Program, Policy and Politics

Study of local, state and national policy and politics as instruments of program change, development, control and reform. Emphasis given to the role of the principal in school policy matters.

Prerequisite: ADSU 6030.

ADSU 6638: The Principal and School Community Relations

Application of interpersonal skills in campus leadership; study of leadership approaches for use with various school constituencies. Required for principal certification.

Prerequisite: ADSU 6030.

ADSU 6735: Leadership Research Seminar

Demonstration of acquired competency through research on current educational leadership topics. This capstone experience provides a rich opportunity to demonstrate the inter-relatedness of theory and practice.

Prerequisite: Must be taken during the final six hours of the ADSU Master's Plan.

ADSU 6739: Graduate Internship

Supervised internship in an approved educational environment. Written and oral reports required.

Prerequisites: Administrative Core courses and approval of Associate Dean, and successful completion of ADSU 5010 or evidence of passing Principal TExES Supervised internship in an approved educational environment.

COUNSELING COURSES

COUN 5010: Professional Preparation Seminar

This course is designed to assist students in the School Counselor Certification Plan to understand the State certification standards for successful entry into their chosen educational field.

Prerequisites: COUN 5231, 5432, 6532, 6731 and an approved, signed degree or certification plan on file in the SoE.

COUN 5034: Community Collaboration in Counseling

This course focuses on the establishment of partnerships and recognition of community resources to meet the needs of diverse populations. Field experiences required.

Prerequisite: Admission to the Counseling Plan.

COUN 5035: Advanced Interpersonal Skills in Diverse Settings

This course will examine the implications of cross cultural differences and similarities as well as the enhancement of interpersonal counseling skills required for professionals working within a diverse setting. Field experiences required.

Prerequisites: COUN 6030 and COUN 6435.

COUN 5131: Counseling for Lifespan Development

Addresses child development, including bio-social, cognitive and psychosocial changes and issues that arise during the school years that may require counseling support.

Prerequisite: Admission to the Counseling Plan.

COUN 5231: Principles of Counseling

History, principles, services and theoretical development of guidance. Development of basic counseling skills.

Prerequisite: Admission to Counseling Plan.

COUN 5432: Theories of Counseling

Current theories of counseling and their applications to practice.

Prerequisite: COUN 5231.

COUN 5739: Practicum in Counseling

Restricted to students with degree or certification plans in counseling. Counseling of bona fide clients in a supervised setting.

Prerequisites: Completion of all core courses, admission to Counseling Program and approval of instructor and Associate Dean.

COUN 5931: Topics in Counseling

Identified by specific title each time course is offered.

Prerequisite: COUN 5231.

COUN 5939: Independent Study in Counseling

Prerequisites: Approval of instructor and Associate Dean.

COUN 6030: Multicultural Foundations for Counselors

This course will review the social, cultural and legal issues related to counseling diverse populations in the United States.

Prerequisite: Admission to the Counseling Plan.

COUN 6031: Technology Applications for Counselors

This course instructs the counselor on using computers and related programs/software to facilitate research, communication, reports and presentations for counselors.

Prerequisite: Admission to the Counseling Plan.

COUN 6032: Statistics and Measurement for Counselors

This course will examine both formal and informal procedures for collecting and analyzing data, principles of measurement and descriptive statistics.

Prerequisite: Admission to the Counseling Plan.

COUN 6033: Research Design and Analysis for Counselors

This course will enable the counselor to design, analyze and apply counseling research techniques, both qualitative and quantitative.

Prerequisites: COUN 6032.

COUN 6232: Assessment Issues for Counselors

Review of the most common psychological tests. Basic principles of psychological report writing and interpretation.

Prerequisites: COUN 6032 or EDUC 6032 and admission to the Counseling program.

COUN 6334: Career Development and Counseling

Review of theories, sources of information, methods for appraisal, appraisal instruments and counseling techniques related to the career development process throughout the lifespan.

Prerequisites: COUN 6032 or EDUC 6032; COUN 6232 or PSYC 6232 and admission to Counseling Plan.

COUN 6435: Pre-Practicum in Counseling

Pre-practicum development of advanced counseling skills and case management documents in a supervised setting.

Prerequisites: COUN 5231 and COUN 5432, cannot be taken concurrently with COUN 6532.

COUN 6531: Counseling Special Populations

Course will prepare counselors to provide services to clients with special needs; to review main approaches to defining psychological abnormalities; to become familiar with the DSM-IV-TR; to learn processes for making psychological diagnoses; to understand major causal theories of psychopathological disorders; to understand role of counselor in ARD/504 processes.

Prerequisites: COUN 5131 and COUN 5231.

COUN 6532: Group Counseling

Basic principles of group dynamics, processes, theoretical applications, techniques and leadership skills in an experiential setting.

Prerequisites: COUN 5231 and COUN 5432, cannot be taken concurrently with COUN 6435.

COUN 6533: Crisis Intervention

Pre-requisites: COUN 6532 or COUN 6435, or permission of instructor. Knowledge of theory and methodology of crisis prevention and intervention, incident debriefing, violence prevention; development of crisis intervention teams.

COUN 6534: Developmental School Counseling Programs

Addresses the design, implementation and evaluation of developmental school counseling programs, with emphasis on the counselor's role in counseling, consultation and coordination of student services in the domains of developmental guidance, individual planning, responsive services and system support.

Prerequisite: COUN 5231.

COUN 6731: Professional Seminar in Counseling

Advanced topics including the latest research in counseling; emphasis on ethical, legal and professional issues.
Prerequisite: COUN 5231.

COUN 6739: Internship in Counseling

Restricted to students with degree or certification plans in counseling. Supervised internship in an approved counseling environment; written and oral reports required.
Prerequisites: COUN 5739 and approval of Associate Dean.

EARLY CHILDHOOD EDUCATION COURSES

ECED 5031: Teaching Young Children

Exploration of practices that nurture the intellectual growth and general development of young children. Field experiences required.

ECED 5032: Community Programs for Young Children

Focus is on studies of various school and community programs (and their underlying theoretical perspectives) that serve young children and families. Trends and issues in early childhood education will be explored. Field experiences required.

ECED 5033: Guidance and Classroom Management for Ec-6

This course explores theories and strategies for guiding young children's behavior in classroom and non-classroom settings. Focus will be on establishing effective discipline and management strategies which promote autonomy in young children.

ECED 5131: Creative Activities for the Young Child

Strategies for developing, implementing and evaluating creative and intellectually stimulating learning environments and curricula for young children. Field experiences required.
Prerequisite: ECED 5031.

ECED 5132: Literacy Development in Early Childhood

Focus on language and emergent literacy development of young children including research and implications for practice. Field experiences required.

ECED 5133: Mathematics and Problem Solving for Young Children

This course explores theories and models of problem solving and mathematics for children ages 3-9. Focus is on understanding, developing and implementing curriculum based on children's metacognitive procedures in mathematics and problem solving.

ECED 5231: Play and the Developing Child

Focus on research, philosophy and application of developmental play theory. Influence of play on physical growth, social relationships, emotional well-being, cognitive development and creative expression is reviewed.

ECED 5331: Evaluation of Development of Young Children

Overview of formal and informal evaluation, including authentic assessment of young children's development. Assessment models that focus on physical, social, emotional, cognitive and language capabilities are reviewed. Field experiences required.
Prerequisite: ECED 5031.

ECED 5332: Infants and Young Children With Exceptionalities

A study of various educational models and methods for the assessment and service provision to infants and young children with special needs. Field experiences required.
Prerequisite: SPED 4030 or SPED 5030.

ECED 5333: Advanced Studies of Infants and Young Children With: Special Needs

Advanced studies of the education of infants and young children with disabilities to include service coordination, assistive/adaptive technologies and health care issues. Field experiences required.
Prerequisites: ECED 5332 or SPED 5332.

ECED 5335: Children, Family and Society

Social contexts in which a child develops, the relationships of individuals in these social contexts and the interaction within and between cross-cultural contexts. Field experiences required.

ECED 5737: Practicum: Infants and Young Children With Disabilities

Fieldwork with infants and/or young children with disabilities not limited to school, agency or privately funded programs.
Prerequisites: ECED/SPED 5332 and ECED/SPED 5333.

ECED 5931: Research Topics in Early Childhood Education

Identified by specific title each time course is offered.

ECED 5939: Independent Study in Early Childhood Education

Prerequisites: Approval of instructor and Associate Dean.

ECED 6739: Internship in Early Childhood Education

Supervised internship in an early childhood setting.

Prerequisites: Completion of a minimum of 9 hours of the Professional Education Core and 15 ECED hours from the MS plan and approval of the Associate Dean.

EDUCATION COURSES

EDUC 5130: Cognition and Instruction

To familiarize students with the theoretical foundation of cognitive psychology, the research protocols of cognitive science and the implication of each for classroom technology and instruction.

EDUC 5132: Issues in Professional Education

Ethical, social, legal and political constraints and considerations in teaching. Emphasis on moral self-assessment and the development of teachers as professional role models for the educational community.

Prerequisite: Admission to Teacher Education Program.

EDUC 5931: Research Topics in Professional Education

Identified by specific title each time course is offered.

EDUC 5939: Independent Study in Education

Prerequisites: Approval of instructor and Associate Dean.

EDUC 6032: Applied Statistics

Application of descriptive and inferential statistics in education. Focuses on the calculation and use of measures of central tendency and variability, and presents statistical tools typically used in educational research including selected parametric and non-parametric techniques.

EDUC 6033: Research Design and Analysis

Design, analysis and application of educational research techniques, both qualitative and quantitative.

Prerequisite: EDUC 6032 or equivalent.

EDUC 6839: Master's Project

Applied field research. May be repeated for credit.

Prerequisites: EDUC 6033 or equivalent, 21 additional hours of approved degree course work and approval of instructor and Associate Dean.

EDUC 6939: Master's Thesis Research

May be repeated for credit.

Prerequisites: EDUC 6033 or equivalent, 21 additional hours of approved degree course work and approval of instructor and Associate Dean.

EDUCATIONAL LEADERSHIP COURSES

EDLS 7010: Superintendent Professional Preparation Seminar

Prerequisite: An approved, signed certification plan on file in the School of Education. This course is designed to assist students in the superintendent certification program to understand the State certification standards for successful entry into this educational field.

EDLS 7030: Dispute Resolution

Designed to analyze various approaches in resolving disputes and to develop skills in helping to resolve disputes that may occur in managing responsibilities. The elements of arbitration, mediation and negotiations are included. Materials from educational, governmental and service organizations will be used.

EDLS 7031: Quantitative Research I

This is the first of a two-course sequence (with EDLS 7032) and focuses on quantitative techniques of inquiry that pertain to educational research and policy analysis. Using an integrated approach, students will study statistics; exploratory data analysis; sampling, survey and experimental design; naturalistic observation and inquiry; and interview and questionnaire design in the context of using research information in planning, change management, policy analysis and program management. Topics include inferential, descriptive, comparative, relational and non-parametric statistics.

EDLS 7032: Quantitative Research II

This is the second of a two-course sequence (with EDLS 7031) and focuses on quantitative techniques of inquiry that pertain to educational research and policy analysis. Using an integrated approach, students will study statistics; exploratory data analysis; sampling, survey and experimental design; naturalistic observation and inquiry; and interview and questionnaire design in the context of using research information in planning, change management, policy analysis and program management. Topics include inferential, descriptive, comparative, relational and non-parametric statistics.

Prerequisite: EDLS 7031.

EDLS 7033: Qualitative Research

Focuses on qualitative techniques of inquiry that pertain to educational research and policy analysis. Using an integrated approach, the students will study many of the same topics discussed in EDLS 7031, but from a qualitative perspective.

Prerequisite: EDLS 7031.

EDLS 7034: Professional Writing & Communications

Addresses public writing and presentation skills. Course includes the study of creating case studies as well as reading, interpreting and discussing case studies; dissertation writing and other textual forms including press releases, speeches, newsletters and grants; developing skills for speaking and listening effectively with different audiences, as well as the effective use of technology in presentations; managing interactions with the media including interviews for print, radio and television.

EDLS 7035: Intercultural Communication

Focuses on the understanding of cultural issues that influence communication effectiveness with diverse populations.

EDLS 7036: Policy & Programs- Special Populations

Overview of various programs serving special populations (ECE, ELL and Special Education). Includes trends and issues, policy implications, legal and ethical aspects and advocacy. Field experiences required.

EDLS 7037: Assessment Issues- Special Populations

Overview of assessment issues and practices for special populations. Program evaluation will also be addressed. Field experiences required.

Prerequisites: EDLS 7033 and EDLS 7130 .

EDLS 7038: Curriculum Planning and Program Development- Special Populations

Overview of curriculum program planning and program issues. This course will include research and best practice in pedagogy as it applies to curriculum planning and program development for special populations. Field experiences required.

EDLS 7039: Family & Community Resources- Special Populations

Overview of family and community resources that support children and families in programs serving special populations. Communication skills and grant writing are featured. Field experiences required.

Prerequisite: EDLS 7034.

EDLS 7130: Program Evaluation

Addresses the evaluation of the effectiveness of programs and policies. Topics include purposes for evaluating; evaluator's role; evaluation structure, various design applications, including experimental, quasi-experimental and descriptive; indicators for effectiveness and program process; along with a series of components, including collection of quantitative and qualitative data, analysis and use of evaluation results in the decision-making process.

Prerequisite: EDLS 7033.

EDLS 7131: Society, Language and Reading

Examines the impact of linguistic, cultural, and social variables on learning to read.

Prerequisite: EDLS 7035.

EDLS 7132: Integrating Reading into the Curriculum

Examines current research and practice on integrating reading throughout the content area curriculum.

EDLS 7133: Writing Workshop in the Classroom I

Examines research based instructional strategies for improving writing in grades K-12.

Prerequisite: Concurrent enrollment in EDLS 7134.

EDLS 7134: Curriculum Writing Workshop in the Classroom II

Examines research based instructional strategies for improving writing in grades K-12.

Prerequisite: Concurrent enrollment in EDLS 7133.

EDLS 7135: Literacy Assessment for the Practitioner

Assessment and diagnosis of literacy disorders including dyslexia.

Prerequisites: Six hours from EDLS 7034 or EDLS 7131-7135.

EDLS 7136: Current Pedagogical Issues

This course, in a seminar format, presents an analysis of current curricular and instructional issues in educational research. Course activities involve extensive review of student-selected research journal articles related to their individual research agenda.

EDLS 7137: Advanced Models of Teaching

In this course, students examine a variety of teaching models to extend their existing knowledge base of instructional strategies. Focus of examination will be on the following Models of Teaching: Concept Attainment, Inquiry Training, Synectics, Advance Organizers, Non-Directive Teaching, Group Investigation, Role Playing and Simulation.

EDLS 7138: Curriculum Design: Development, Implementation, Evaluation

Students will examine the impact of 21st Century National Standards on the development, implementation and evaluation of state and local curricula.

EDLS 7139: Professional Development Principles and Practices

This course examines current research-based strategies and techniques, e.g., workplace improvement goals development, assessment models, motivational methods and skills transferability, for the effective planning and implementation of professional development programs.

EDLS 7230: Counseling Supervision

Prerequisite: Permission of the instructor and 2 years experience as Licensed Professional Counselor or Certified School Counselor. Supervision models; supervisory relationship and counselor development; supervisory methods and techniques; group supervision; counselor evaluation using state and national Counseling models; ethical, legal, cultural and professional issues of supervision, executive and administrative tasks of supervision. Field experience required.

EDLS 7231: Advanced Crisis and Disaster Response

Addresses the creation of school safety plans, preventative/responsive preparation and better prepare the counselor for dealing with a major school-wide crisis as well as ways to cope with parental, community, and media response.

Prerequisite: Permission from instructor and COUN 6533: Crisis Intervention.

EDLS 7232: Evaluating Counseling Programs

Prerequisite: EDLS 7130: Program Evaluation. Focuses on comparing/contrasting a district's current counseling curriculum and suggesting changes that can strengthen the district's counseling related programs and policies.

EDLS 7233: Counseling as a Profession

Focuses on advanced work within the profession such as university instruction and supervision, syllabus preparation to meet state and national standards, committee work for local, state, and national professional organizations, networking with other doctoral level counseling students, and developing skills for presenting research within a state or national forum.

Prerequisites: Permission of instructor and certification as a school counselor or Licensed Professional Counselor.

EDLS 7238: Marketing of Educational Services for Nonprofit Organizations

This course is designed to integrate concepts, practices, and skills for the effective marketing of services with attention to nonprofit organizations, e.g., educational entities. Through the use of readings, case studies, and projects, students will analyze environments and marketing mixes, and make decisions in the development of viable educational marketing strategies.

EDLS 7330: Advanced Statistical Analysis

An advanced course in statistical methods. Topics may include analysis of variance techniques, planned and post hoc comparisons, and mixed designs, multiple correlation/regression techniques, including polynomials, analysis of interactions, dummy coding, and analysis of covariance. Current issues in the field involving the use/misuse of statistical analysis will be discussed.

Prerequisite: EDLS 7032.

EDLS 7331: Advanced Qualitative Methods

Focus on analysis techniques beyond the constant comparative method. Discussion of system-level analysis and means of analyses useful for studies examining micro- and macro-level phenomena. Exposure to several advanced qualitative methodologies, including life history, arts-based research, qualitative evaluation and discourse analysis.

Prerequisite: EDLS 7033.

EDLS 7332: Current Issues in Educational Measurement

The application of reliability, validity, and practicality to the development, selection, use, and interpretation of tests and other measuring instruments. The interpretation and use of norms; standard scores, percentiles, quotients, and grade equivalents. An understanding of the role of measurement in evaluation, diagnosis, selection and placement is included.

Prerequisite: EDLS 7032.

EDLS 7333: Survey Design

Development, construction, and validation of non-cognitive questionnaires, surveys, and interview protocols. Item construction, analysis, and the development of subscales are discussed. Effects of sampling methodologies are examined. Survey environment selection effects will be discussed. Review recent research on survey design, with a focus on response rate improvement.

Prerequisite: EDLS 7033.

EDLS 7636: Politics and School Finance

Includes federal, state and local sources of funding; issues related to the distribution of moneys and local taxation policies; understanding the concepts and issues of bond elections, investments, debt service and risk management, analysis of the community power structure within the district, how national and state political forces affect local education policies.

EDLS 7637: Personnel Management

Covers the various aspects of administering personnel in the educational setting: rights and responsibilities of employees, contracts, collective bargaining, termination, advertising, recruiting, interviewing, hiring practices, staff development and creation of policies governing personnel.

EDLS 7638: The Superintendent and School Community Relations

Approval of the Associate Dean/Admission to the Superintendent Certification Plan. Application of interpersonal skills in educational leadership; study of leadership approaches for use with various school constituencies.

EDLS 7833: Superintendent Seminar

Contemporary theory and issues in School Leadership.

EDLS 7837: Superintendent Internship

Supervised internship in an approved educational environment. Written and oral reports required.

EDLS 7931: Doctoral Research Topics in Educational Leadership

Identified by specific topic each time course is offered.

EDLS 7939: Doctoral Independent Study in Educational Leadership

Prerequisites: Approval of instructor and student's doctoral committee.

EDLS 8030: Organizational Leadership

Explores major philosophies and theories of leadership and their applications to successfully leading and managing educational organizations in community settings, especially ones with a diverse population. Topics include theories of organization and their implications for diagnosis and actions; managerial styles and their implications in addressing individual and group dynamics; values and ethics; cultural sensitivity; legal responsibilities; and effective decision making strategies for successful outcomes. Field experience is required.

Prerequisite: EDLS 7034.

EDLS 8130: Strategic Planning & Systems Alignment

Addresses components of systems theory, comprehensive strategic planning and modeling and organizational alignment. Topics include developing systems analysis, strategic and unit-level planning, contingency planning, integration of planning horizontally and vertically and alignment of planning with resources and assessment. Field experiences required.

EDLS 8131: Policy, Knowledge Management & Forecasting

Investigates the use of data systems for organizational management and policy development. Uses techniques of knowledge management systems, data mining and forecasting tools to effectively integrate diverse data sets, such as demographics, facilities needs, planning documents, assessment data, human resource data and financial data. Topics include the development and use of demographic models, GIS models, database design, forecasting tools and simulation tools. Field experiences required.

Prerequisite: EDLS 8130.

EDLS 8132: Transition and Change Management

Explores the theory and research of change management as applied to enterprise-wide change, organizational transitions and processes. Topics include analysis of the various aspects of systemic change, such as change leadership, team building, process planning, accountability systems, succession management, data analysis, communication and survey tools, resource allocation, community relations and marketing of services. Field experiences required.

EDLS 8230: Ethics, Values and Social Responsibility

Identifies highest standards in professional collaboration, duty to stakeholders, the extent of professional responsibility extending beyond matters of designated and measurable accountability and commitment to the community served. The course merges the best of the technical literature by professional ethicists with an emphasis on practice and continuous improvement.

EDLS 8330: Human Resources Administration

Addresses various aspects of human resources leadership and management. Topics include federal/state laws, meaningful work environment; motivation and job satisfaction; effective and interactive employee communications; and relevant, ongoing professional development opportunities for self and for staff, highlighting lifelong learning. Discussions include the research and theory of adult learning (transformational learning); reflective practices; and mentoring. Field experiences required.

EDLS 8430: Financial Resources Management

Addresses financial management practices and problems of nonprofit organizations in the area of education, government and human services. Specific topics include financial accounting, preparation and interpretation of financial statements, financial analysis and cost accounting, budgeting, cost containment and retrenchment and financial planning. Field experiences required.

EDLS 8530: Research Seminar

The main focus is on creating and maintaining effective schools. Educational leaders are invited to address current real-world problems that doctoral students would analyze in order to develop workable alternative solutions. The process works toward doctoral students developing viable research projects that could serve as relevant dissertation topics. Field experiences required.

Prerequisite: EDLS 7033: Focuses on challenging topics of leadership in educational settings.

EDLS 8939: Dissertation

Twelve (12) hours of dissertation count toward the program. Focuses on the activities necessary for the completion of the dissertation.

Prerequisites: Admission to candidacy for doctoral degree and consent of Doctoral Program Committee.

EDLS 8969: Dissertation

Twelve (12) hours of dissertation count toward the program. Focuses on the activities necessary for the completion of the dissertation.

Prerequisites: Admission to candidacy for doctoral degree and consent of Doctoral Program Committee.

EDLS 8999: Dissertation

Twelve (12) hours of dissertation count toward the program. Focuses on the activities necessary for the completion of the dissertation.

Prerequisites: Admission to candidacy for doctoral degree and consent of Doctoral Program Committee.

INSTRUCTIONAL TECHNOLOGY COURSES

*For definition of "Basic computer literacy," go to <http://soe.uhcl.edu/ComputerLiteracy>.

INST 5011: Assistive-Adaptive Computer Applications

Teaches the discipline and laws related to special education. Classroom models and resources will be created to support the design of instruction for students with disabilities.

INST 5035: Creating Digital Resources

In this introductory course, participants will learn about innovative trends in the field of instructional and communication technologies. Participants will create instructional products.

Prerequisite: Basic computer literacy*.

INST 5130: Learning Theory and Instruction

Students will be able to identify and describe the salient characteristics that differentiate learning environments designed with each of several prominent contemporary theories of learning and cognitive science. Students will apply each theory to one or several learning environments.

INST 5131: Trends & Issues

Participants will learn about trends and issues affecting instructional design and technology in education, business and industry. Participants will create an eFolio template for voice, video, text and graphics.

Prerequisites: Basic computer literacy*.

INST 5135: Multimedia Design Applications

This course introduces the instructional analysis, design, development, implementation and evaluation and theoretical underpinnings of multimedia components as an instructional tool. The participants will design multimedia projects appropriate for online learning environments.

INST 5233: Performance Technology

This course enables learners to apply human performance improvement tools and techniques to identify performance problems and select potential solutions. Topics covered include: performance technology, non-instructional performance interventions, needs assessment and change management.

INST 5333: Systematic Design of Technology-Based Instruction

Application of systematic procedures for designing training and instruction based on a combination of practical experience and instructional systems design theory and research. A secondary emphasis will be on methods for instructional delivery including instructor-lead, print, computer and electronic network-based systems.

INST 5433: Instructional Design, Project Management and Grant Writing

This course enables learners to plan and manage instructional design and development projects and write successful educational grant proposals. Students will also learn project management techniques, project management software, applications and resources for identifying educational grant opportunities.

INST 5535: Internet for Instruction

Students will plan and design online instructional materials and/or modules that effectively incorporate the Internet and address the social, ethical, legal and human factors affecting the Internet as a communication, professional development and lifelong learning tool.

Prerequisite: Basic computer literacy*.

INST 5635: Instructional Web Design and Development

Students will learn to design and develop an instructional Web site by applying principles of educational psychology, communications theory and fundamental principles of message design to create tables, frames and interactive multimedia elements, and forms in web pages.

INST 5735: Advanced Web Development

This course is for experienced HTML programmers seeking to expand Web skills. Topics include programming in ASP, DHTML, connecting forms to databases, server setup, maintenance and management and other current tools and applications. The course requires hands-on activities, group work and the design, development and implementation of Web-based instructional modules.

Prerequisite: INST 5635.

INST 5835: Digital Video Production for Educators and Trainers

This course covers basic "Digital Video" pre-production, production and post-production. Student will develop and use a final edited video in either a multimedia presentation, on a web site or in an instructional video tape. The course also provides opportunities to explore newer video formats such as DVD and streaming video.

INST 5919; 5939: Independent Study in Instructional Technology

Prerequisites: Approval of instructor and Associate Dean.

INST 5931: Research Topics in Instructional Technology

Identified by title each time course is offered.

INST 6031: Applications of Technology

Students will learn how to use and interactive Internet-based software applications that facilitate the work of instructional designers, teachers, school administrators, and school counselors. Students engage in projects such as developing blogs, online courses, instructional videos, podcasts, rubrics, online tests, surveys, eportfolios, and organizing information. The history of instructional technology, learning theory as applied to instructional technology, and the principles of data processing are reviewed.

Prerequisite: Basic computer literacy.

INST 6037: Advanced Technology Applications

Creates a variety of multimedia related concepts including desktop publishing, video production, Web design, multimedia development and graphic design and animation.

Prerequisite: Basic computer literacy*.

INST 6137: Technology and e-Learning

Links current understanding of human cognition with advances in computer technologies. Addresses how technology-rich learning environments must benefit from a firm grounding in educational psychology and cognitive science.

Prerequisite: INST 6437.

INST 6237: Advanced Instructional Design

Covers a variety of analysis techniques, design theories and design models.

Prerequisite: INST 5333.

INST 6337: Motivational Design of Instruction

Focuses on systematic strategies that will enable teachers, trainers and instructional designers to develop instruction that motivates students to learn. Students will examine theories of human motivation and learn how to apply the ARCS model of motivational design.

INST 6437: Interactive Distance Learning

Focuses on the systematic design and delivery of interactive distance learning programs based on the use of the Internet and related telecommunication technologies. Students design, develop and formatively evaluate their own distance instruction, analyze research and examine current trends and issues.

INST 6537: Management of Computer Resources

This course covers: configuring, maintaining and trouble-shooting hardware, software, computer networks and peripheral devices; the availability of emerging technologies, telecommunications; multimedia; and curriculum integration. Methods for maximizing the use of the technology in classrooms, in school libraries and in computer labs will also be discussed.

INST 6637: Analyzing Emerging Uses of Technology

Advanced discussion on the instructional applications of emerging technologies. The purpose is to link research on emerging uses of technology to establish a direction of research selected by students. Students will analyze research and prepare annotated bibliographies and a review of literature.

INST 6737: Training Practicum

Practical, hands-on experience in conducting needs assessment, designing and delivering technology training, supporting post-training performance and evaluating real-life training situations for continuing adult education and development.

INST 6739: Internship in Instructional Technology

Supervised practice in educational computing under the guidance of a selected professor.

Prerequisites: Approval of Associate Dean, completion of all Professional Education Core courses, Instructional Technology Core courses and at least one INST elective from the plan.

LITERACY, LANGUAGE AND LIBRARY SCIENCE COURSES**LLS 5131: Integrating the Language Arts**

Approaches to developing oral and written expression, listening skills and the integration of all the language arts for EC-8.

LLS 5133: Foundations of Reading

Historical, philosophical, physiological and psychological foundations of reading.

LLS 5134: Developmental Reading Programs for EC-8

Structuring developmental reading programs, emphasizing alternative approaches.

LLS 5135: Developmental Reading Programs for Secondary Schools

Analysis of model reading programs in grades 4-12, emphasizing alternative approaches to teaching, materials and instructional strategies.

LLS 5137: Modern Trends in Literature for Children and Young Adults

Examines current trends and issues in the literature published for children and young adults.

LLS 5531: Critical Reading and Thinking

Applying higher order thinking skills to reading in literature and the content areas.

LLS 5532: Selecting Literature and Materials for Young Adults

Selection, use and organization of literature for students in grades 8-12; reading materials, resources and bibliography sources.

LLS 5533: Selecting Literature and Materials for Children

Selection of literature and other resources, including motivational techniques for encouraging an interest in reading appropriate for EC-8 students.

LLS 5534: Foundations in Secondary Literacy

Theories and practices of secondary reading and writing, reader response theory, physiological, and psychological foundations of secondary reading in grades 4-12.

LLS 5634: Teaching Methods for English/Reading Language Arts Grades 8-12

Implementation of English/reading language arts teaching methodologies for grades 8-12 based upon application of theory and practice. Field experiences required.

Prerequisite: Admission to Teacher Education Program.

LLS 5635: the Teaching of Writing I

Teaching writing skills and improving student writing in grades K-12 using a process approach; instructional strategies based upon theory and current research.

Prerequisite: Concurrent enrollment in LLS 5636.

LLS 5636: The Teaching of Writing II

Teaching writing skills and improving student writing in grades K-12 using a process approach; instructional strategies based upon theory and current research.

Prerequisite: Concurrent enrollment in LLS 5635.

LLS 5736: Practicum: Assessment and Initial Instructional Techniques for Early

INTERVENTION OF LITERACY

Introduces Reading Recovery teacher-in-training techniques which focus upon assessment and observation methods of early literacy, theoretical framework for early intervention and introduction of instructional strategies. Field experiences required.

LLS 5737: Practicum: Advanced Instructional Techniques and Summative Assessment Procedures for Early Intervention of Literacy

Introduces Reading Recovery teacher-in-training techniques which focus upon advanced instructional techniques and summative assessment procedures for early intervention of literacy. In addition, a theoretical framework for early literacy will be applied during on-site training with first grade children. Field experiences required.

LLS 5738: Foundations of Early Literacy

Theories and practices of early literacy development including phonics, phonemic awareness, early writing development and speaking and listening. This course includes training for leadership in early literacy practices

LLS 5931: Research Topics in Literacy, Language and Library Science

Identified by title each time course is offered.

LLS 5939: Independent Study in Literacy, Language and Library: Science

Prerequisites: Approval of instructor and Associate Dean.

LLS 6131: Selection and Use of School Library Materials

Fundamental criteria, tools and resources applicable to the selection of print and non-print materials in school libraries.

LLS 6132: Cataloging and Classification

Fundamentals of cataloging print and non-print materials in school libraries.

LLS 6133: Reference and Bibliography

Study, evaluation and application of print and non-print reference sources used in school libraries.

LLS 6231: Library Information and Retrieval Systems

An introduction and evaluation of current library information and retrieval systems and their application to school libraries.

LLS 6331: Sociolinguistic Applications to Reading

Examination of sociolinguistic models and concepts, the study of language in educational settings and language differences applied to reading instruction.

LLS 6334: Administration of School Library Services

Principles and illustrative practices in the organization, budgeting, policy making, facilities planning and staffing of school libraries.

LLS 6336: Media and Technology Selection and Application

Selection, evaluation and application of audio visual and computer software and hardware, including the design and production of media in school libraries.

LLS 6639: Leadership in Clinical Practices in Assessment of Literacy Tasks

Advanced techniques in assessment and strategies for intervention in problem reading situations; includes practice in reading supervision. Field experiences required.

Prerequisites: 12 hours Reading course work including LLS 6732.

LLS 6732: Assessment and Remediation of Reading and Language Arts Literacy

Practice in assessment and remediation of literacy. Simulated and laboratory practice in administration, interpretation, evaluation of literacy assessment instruments and practice with a multiplicity of reading/language arts strategies for literacy development including dyslexia and related disorders.

Prerequisites: Six hours Reading course work.

LLS 6739: Internship in School Library Practice

Supervised field experiences in EC-12, incorporating information skills instruction, daily logs and seminars.

Prerequisites: Completion of 18 hours in the School Library Core and approval of Associate Dean.

STUDIES IN LANGUAGE AND CULTURE COURSES

SILC 5031: Curriculum Issues in Educating the Bilingual Student

Study and design of the curriculum for bilingual education programs with emphasis on teaching academic content areas (mathematics, social sciences and sciences) and vocabulary development. Course taught in Spanish.

Prerequisite: Fluency in Spanish.

SILC 5032: Applied Linguistics for Bilingual Education/ESL

Analysis of language development, language acquisition and language use.

SILC 5033: Cross-Curricular Literacy for Second Language Learners

Research, theory and practice in the development of reading and writing skills for second language learners in all content areas.

SILC 5034: Community Collaboration

Establishing partnerships to meet the needs of diverse communities. Field experiences required.

Prerequisite: SILC 6030.

SILC 5035: Interpersonal Interactions in Diverse Settings

Emphasis on developing an understanding of the implications of cross-cultural differences and similarities and the skills required for professionals working within a diverse setting.

Prerequisite: SILC 6030.

SILC 5036: Multicultural Curriculum Development

The study of materials, strategies and issues related to the development of multicultural curricula. Addresses the needs of general education, special education, early childhood education and reading/library resource personnel.

Prerequisite: SILC 6030.

SILC 5130: Theory and Research in Bilingual and ESL Education

Survey of theoretical, historical, legal and sociocultural basis of bilingual education and ESL programs.

SILC 5134: Second Language Teaching

Trends, issues and practices related to the teaching of English as a second language.

SILC 5531: Literacy for Spanish-Speaking Students

Study of traditional and contemporary views of literacy in Spanish. Focus on teaching Spanish language arts and reading to students whose first language is Spanish. Course taught in Spanish.

Prerequisite: Fluency in Spanish.

SILC 5931: Research Topics in the Studies of Language and Culture

Identified by title each time course offered.

SILC 5939: Independent Study in Language and Culture

Prerequisites: Approval of instructor and Associate Dean.

SILC 6030: Foundations of Multicultural Education

Social, cultural and legal issues regarding diversity in the United States.

SILC 6032: Models of Language

A study of the components of language and the use of phonology, morphology, syntax and semantics to describe them. Focuses on describing languages and dialectical variations.

SILC 7030: Intercultural Communication

Focuses on the understanding of cultural issues that influence communication effectiveness with diverse populations.

SPECIAL EDUCATION COURSES

SPED 5030: Survey of Individual Differences

Study of various theories of cognition and learning in relation to individuals with disabilities. Provides an in-depth study of various categories of disabilities to include characteristics, causation and the course of disability throughout the lifespan.

SPED 5131: Educational Assessment of Exceptionalities

A review of procedures used for diagnosing disabilities and an in-depth study of procedures used in special education settings with an emphasis on informal techniques, authentic assessment and functional analysis of behavior.

Prerequisite: SPED 5030 or equivalent.

SPED 5132: Curricular Approaches to Learning Difficulties

Causal factors and remedial alternatives for children with low performance records in regular school environments.

Prerequisite: SPED 5030 or equivalent.

SPED 5133: Programming for Educational Disabilities

Applied behavior analysis approach to prescriptive models for intervention in cases of educational difficulties. Field experiences required.

Prerequisites: SPED 5131, 5132, 5233, 5331.

SPED 5233: Providing Positive Behavioral Support

A study of the theoretical, legal, social and philosophical issues related to the principles and practices for supporting students with challenging behaviors in school settings to include development of intervention plans.

Prerequisite: SPED 5030 or equivalent.

SPED 5331: Collaboration and Continuity in Programming for Individuals With Disabilities

A study of issues and skills related to programming across the lifespan with a focus on collaborative processes involving professionals, students and their families.

Prerequisite: SPED 5030 or equivalent.

SPED 5332: Exceptionalities in Infants and Young Children

A study of various educational models and methods for the assessment and service provision to infants and young children with special needs. Field experiences required.

Prerequisite: SPED 5030 or equivalent.

SPED 5333: Advanced Studies of Exceptionalities in Infants and Young Children

Advanced studies of the education of infants and young children with disabilities to include service coordination, assistive/adaptive technologies and health care issues. Field experiences required.

Prerequisite: ECED 5332 or SPED 5332.

SPED 5737: Practicum: Infants and Young Children With Exceptionalities

Completion of all prior course work for the Early Childhood Handicapped Endorsement. Fieldwork with infants and/or young children with disabilities; not limited to school, agency or privately funded programs.

Prerequisites: ECED/SPED 5332 and ECED/SPED 5333.

SPED 5931: Research Topics in Special Education

Identified by title each time course is offered.

SPED 5939: Independent Study of Exceptionalities

Prerequisites: Approval of instructor and Associate Dean.

TEACHER EDUCATION COURSES

TCED 5010: Professional Preparation Seminar

Prerequisite: An approved, signed degree or certification plan on file in the SoE; assists students with degrees to connect all facets of teacher certification in order to make a successful entry into their chosen educational field.

TCED 5014: Mentoring and Cognitive Coaching

Enables participants to apply peer mentoring and cognitive coaching theories and will include observation and feedback techniques.

TCED 5030: Models of Teaching

Analysis of the knowledge base for instruction and development of proficiency in a variety of teaching models.

TCED 5031: Curriculum Planning

Design and evaluation of curriculum for early childhood through twelfth grade; study of curriculum theory, design principles, issues and trends.

Prerequisite: TCED 5030.

TCED 5032: Preparation for K-12 Educators for National Board for Professional Teaching Standards I

Initial preparation for educators grades K-12 for National Board for Professional Teaching Standards. Course includes preparation for description, analysis and reflection upon professional development and teaching to match the requirements for the national standards.

Prerequisite: 3 years of teaching experience.

TCED 5033: Preparation for K-12 Educators for National Board for Professional Teaching Standards II

Includes preparation for the professional teaching portfolio, the description, analysis and reflection of the components of the portfolio and preparation for the written examination.

Prerequisite: TCED 5032.

TCED 5034: Management Strategies for Creating a Positive Learning Environment

This course presents effective management strategies that can be implemented across content areas and grade levels.

TCED 5035: Integrated Instruction: Models for Application

This course presents theories and strategies on effective approaches for interdisciplinary integration in all content areas. Using vertical alignment, these models will be applicable across Pre-K-12 curriculum.

TCED 5036: Issues of Pedagogy

An in-depth examination of current curricular and instructional issues in research, specifically tied to students' teaching practice. One focus area will be assessment – data analysis, impact and implications.

Prerequisites: EDUC 6033 and TCED 5030.

TCED 5037: Assessment and Student Learning

This course analyzes formative and summative assessment theory and strategies for implementation in Pre-K-12 curricula.

Prerequisites: EDUC 6032 (or equivalent).

TCED 5038: Professional Development for Enhancing Teacher Leadership

This course presents strategies for generating a professional development plan and involves participation in self-selected professional activities (i.e., conference attendance and presentations, article and conference proposal writing, etc.). Content of the course involves examination of current research on teacher professional development and leadership.

TCED 5231: Teaching Social Studies in the Elementary School

Utilization of new programs, processes and equipment designed to individualize instruction in social studies. Field experiences required.

Prerequisite: Admission to Teacher Education Program.

TCED 5232: Teaching Science in the Ec-6 Classroom

Development of science concepts in EC-6 instruction. Emphasis on curriculum materials and the process approach as a science teaching method. An examination of National Science Foundation curriculum projects as related to EC-6. Field experiences required.

Prerequisite: Admission to Teacher Education Program.

TCED 5233: Teaching Mathematics in the Ec-6 Classroom

Development of mathematical concepts and teaching strategies for EC-6. Emphasis on problem solving with manipulative and curriculum materials appropriate for use with EC-6 students. Field experiences required. Prerequisites: MATH 3032 and Admission to Teacher Education Program.

TCED 5234: Social Studies Methods for the Secondary Grades

Curriculum designs, instructional models and authentic assessment techniques for developing social studies knowledge, citizenship and critical thinking skills; emphasis on best practice and research based strategies for teaching secondary students. Field experiences required. Prerequisite: Admission to Teacher Education Program.

TCED 5235: Science Methods for the Secondary Grades

Strategies for teaching secondary science including field studies, research and incorporation of local environmental issues; emphasis on recent research as it relates to science education; addressing issues and trends in secondary science education and enhancing science achievement in the classroom. Field experiences required. Prerequisite: Admission to Teacher Education Program.

TCED 5236: Mathematics Methods for the Secondary Grades

Curriculum designs, instructional models and authentic assessment techniques for developing mathematical knowledge and problem-solving skills; emphasis on best practice and research based strategies for teaching mathematics to secondary students. Field experiences required. Prerequisite: Admission to Teacher Education Program.

TCED 5332: Teaching Science in the 4-8 Classroom

Development of science concepts and teaching strategies for grades 4-8. An emphasis on the inquiry approach to teaching science consistent with concepts of cognitive development. Integrated Physics and Chemistry as well as the use of technology in the science classroom will be addressed. An examination of National Science Foundation curriculum projects as related to grades 4-8. Field experiences required. Prerequisite: Admission to Teacher Education Program.

TCED 5333: Teaching Mathematics in the 4-8 Classroom

Development of mathematical concepts and teaching strategies for grades 4-8. Emphasis on problem solving with manipulative and curriculum materials appropriate for use with 4-8 students. Algebraic and graphing technology will be addressed. Field experiences required. Prerequisites: MATH 3037 and Admission to Teacher Education Program.

TCED 5431: Nature of the Middle Level Learner

A developmental approach to the study of early adolescents with emphasis on their physical, emotional, intellectual and moral development, learning styles, culturally related differences and discipline management techniques.

TCED 5530: Adolescent Development and Curriculum

A developmental approach to the study of adolescents, related to discipline, classroom management and scope and sequence of curriculum.

TCED 5630: Educating the Gifted and Talented Learner

A historical survey of the field, definitions, basic terminology, theories, models and characteristics of the gifted and talented; brief summary of identification and assessment procedures; models for interaction with gifted students and a review of effective programs.

TCED 5631: Games, Logic and Giftedness

Game-like techniques for teaching gifted students formal and informal logic and critical thinking in mathematics, science and language; includes laboratory experiences teaching new thinking skills.

TCED 5632: Growth and Development of the Gifted Learner

Examines the differentiated affective characteristics and needs of the gifted including a review of general counseling theories, effective communication skills, assessment of affective needs, strategies for assisting the gifted in developing interpersonal skills and issues surrounding the potential of the gifted to make the significant contributions to society.

TCED 5634: Curriculum Development for Gifted and Talented Learners

Provides the foundation for the development of differentiated curricula for gifted students. Significant curriculum models are presented. Other topics include effective teaching strategies, adapting curriculum for individual differences, the organization of curriculum for the gifted and the teaching of higher-level cognitive skills.

TCED 5636: Creative Theories, Models and Applications for the Gifted Learner

Survey of the concept of creativity including topics such as instruments and techniques for identifying creativity, theories and models of creativity, techniques for creative enrichment and challenges unique to creative persons.

TCED 5637: Practicum in Gifted and Talented Education

Fieldwork with gifted and talented students.

TCED 5911: Research Topics in Teacher Education

Identified by specific title each time course is offered.

TCED 5921: Research Topics in Teacher Education

Identified by specific title each time course is offered.

TCED 5931: Research Topics in Teacher Education

Identified by specific title each time course is offered.

TCED 5939: Independent Study in Teacher Education

Prerequisites: Approval of instructor and Associate Dean.

TCED 6031: Application of Technology in the Classroom

Students will learn how to use and integrate computers and various software applications (e.g. word processors, databases, spreadsheets, graphics) with instruction to facilitate learning and performance. They will also be instructed in the use of educational software, multimedia development and telecommunication technologies such as e-mail and the Internet that can be used to enhance student learning.

Prerequisite: Basic computer literacy*.

TCED 6734: Advanced Seminar in Science Education

Advanced topics on research in science education; emphasis on instructional techniques and concept formation.

TCED 6735: Seminar in Environmental Education

Curricular implications of energy and environmental issues; emphasis on instructional techniques in science, social studies and other subject matter areas.

TCED 6739: Internship in Curriculum and Instruction

Supervised internship in curriculum and instruction.

Prerequisite: Approval of the Associate Dean.



Assistant Professor of Behavior Analysis, Jennifer Fritz presents the award for top Behavior Analysis student to Ms. Amanda Lewis.



SCHOOL OF HUMAN SCIENCES AND HUMANITIES

- Behavior Analysis
- Behavioral Sciences – General
- Clinical Psychology
- Criminology
- Cross-Cultural Studies
- Digital Media Studies
- Family Therapy
- Fitness and Human Performance
- History
- Humanities
- Literature
- Psychology
- School Psychology
- Sociology

The School of Human Sciences and Humanities (HSH) is dedicated to the study of people. The school fosters the liberal arts and encourages practical preparation for occupations.

Instead of many separate departments, there are two interrelated clusters: Humanities and Fine Arts (HFA) and Human Sciences (HS). Within these plans, students may develop either a broadly interdisciplinary plan of study or one that is more narrowly focused, resembling traditional departmental majors. With the help of faculty advisers, students develop the plans most appropriate to their interests and goals.

HSH also offers several school-based certificates. Information on requirements can be found with their degree.

- Applied Behavior Analysis (see Behavioral Analysis)
- Human Factors/Ergonomics (see Psychology)
- Fitness and Human Performance
- Professional Writing (see Humanities)
- Women's Studies

ADMISSION INTO A HSH DEGREE PLAN

Records for degree-seeking graduate students are processed by the Office of Admissions and forwarded to the dean's office for faculty assignment and completion of the degree plan.

Requirements for each HSH degree plan are detailed in the following pages.

Information on HSH degree plans and advising schedules can be obtained from the HSH Advising Office.

There are two ways applicants can be accepted into a graduate degree plan in the School of Human Sciences and Humanities:

- Those applicants who have a minimum of a 3.000 cumulative grade point average (GPA) in their last 60 hours of course work meet the School's graduate admissions criterion. Those applicants who are certain that they meet the minimum cumulative GPA requirement are not required to take the GRE.

- For students whose cumulative GPA falls below 3.000, there is a second procedure by which they can be considered for admission into a graduate degree plan. They must submit scores from the Verbal and Quantitative portions of the Graduate Record Examination (GRE). To be admitted into degree candidacy in HSH under the second option, students must have a minimum score of 2050 using the following formula: $(\text{GPA in the last 60 hours} \times 500) + \text{GRE Verbal} + \text{GRE Quantitative} = 2050$ or higher.

A student who has been denied admission may appeal the decision in writing to the HSH Associate Dean of Academic Affairs.

In order to have adequate time to review applicants' material, the Application for Admission, transcripts for all prior college course work and GRE scores (if necessary) must be received by the Office of Admissions according to the following deadlines:

Fall Enrollment	August 1
Spring Enrollment	December 1
Summer Enrollment	May 1

Students wishing to apply to Behavior Analysis or one of the Professional Psychology Plans (Clinical Psychology, Family Therapy, School Psychology) should refer to that section of the Catalog for information about the admission process, requirements and deadlines.

	Office	Phone
Office of Academic Advising	Bayou 1539	281-283-3333
Office of the Dean	Bayou 1529	281-283-3300
Dir., Texas Dept. of Criminal Justice Program	Bayou 1617	281-283-3420

For more information about the School of Human Sciences and Humanities please see <http://www.uhcl.edu/hsh>

PLANS IN HUMAN SCIENCES

Plans in Human Sciences are designed to help students explore a number of significant issues: to understand one's self in relation to others; to distinguish what is genuinely personal from what is societal; to help in the difficult processes of value formation and critical thinking; to come to a more subtle appreciation of collective ideals and notions of the good life, the nature of happiness and how to secure it; and to cope intelligently with the complexities and problems of modern society.

Plans in Human Sciences have strong theoretical and applied orientations. As these plans seek better understanding of self and society, they are equally intended to prepare students for a variety of professional careers, such as work in human service agencies, scientific research and college teaching. For specific information regarding careers in any of the human sciences, students should consult the HSH Advising Coordinator.

Plans in Human Sciences include Behavior Analysis, Behavioral Sciences-General, Clinical Psychology, Criminology, Cross-Cultural Studies, Family Therapy, Fitness and Human Performance, Psychology, School Psychology and Sociology.

PLANS IN HUMANITIES AND FINE ARTS

The plans in Humanities and Fine Arts bring together complementary studies in literature, history, art, philosophy, language and communication. These disciplines comprise the liberal arts curricula of the university and students in all areas of study are strongly encouraged to complement their educations by enrolling in liberal arts courses.

Humanities and Fine Arts courses are designed to be intellectually stimulating and challenging; to develop clarity of thought, speech and writing; to encourage the formation of enlightened attitudes and values; and to develop both the critical and creative capabilities of each student.

Plans in Humanities and Fine Arts include Digital Media Studies, History, Humanities and Literature.

BEHAVIOR ANALYSIS (MASTER OF ARTS)

The goal of this degree plan is to provide students with a foundation in behavior analysis and psychology through an integrated sequence of course work, practicum and research activities. Students obtain competency in the basic principles of learning and the application of these principles with particular emphasis on interventions for children with developmental disabilities. Practicum and research experiences are provided in home, school and clinic settings. All students complete a major research project prior to graduation. The program includes a course sequence and practicum that have been approved by the Behavior Analyst Certification Board, Inc[®]. Students completing the course work and practicum requirements of the program will be eligible to sit for the Board Certified Behavior Analyst (BCBA) exam.

Students wishing to enroll in this degree plan must formally apply. Additional information can be obtained by contacting the faculty coordinator. Consult the application packet for further information about the admissions requirements and deadlines.

Prerequisites: Twelve hours of undergraduate psychology with a grade of "B-" or better in each course and a course in statistics. At least two of the four psychology courses must have been taken at the upper-level.

REQUIRED PLAN CORE COURSES (33 HOURS)

PSYC 5235	Learning Principles	3 hours
PSYC 6238	Applied Behavior Analysis	3 hours
PSYC 6031	Behavioral Assessment	3 hours
*PSYC 6218	Ethics and Professional Issues in Behavior Analysis	1 hour
*PSYC 6228	Research Methods in Behavior Analysis	2 hours
PSYC 6239	Behavioral Interventions I ¹	3 hours
PSYC 6331	Behavioral Interventions II ¹	3 hours
PSYC 6036/6037	Research Design and Statistics I and II	6 hours
PSYC 6134	Biological Bases of Behavior	3 hours
PSYC 6330	Research & Practicum in Applied Behavior Analysis ²	6 hours

Students select one of the following behavior analysis electives (3 hours)

PSYC 5736	Behavioral Medicine	3 hours
PSYC 6235	Behavioral/Cognitive Therapies	3 hours
PSYC 5931	Research Topics in Psychology (Behavior Analysis)	3 hours

Students select two of the following psychology electives (6 hours)

PSYC 5031	Human Growth and Development	3 hours
PSYC 5131	Psychopathology of Childhood	3 hours
PSYC 5532	Advanced Social Psychology	3 hours
PSYC 6832	Advanced Cognitive Psychology	3 hours

¹This seminar course includes class meetings and up to 10 hours per week of field activities in home, school and clinic settings.

²This course requires completion of a research project and 20 hours per week of field experience in home, school or clinic settings for two semesters (3 credits per semester).

*Pending Coordinating Board approval

APPLIED BEHAVIOR ANALYSIS CERTIFICATE

The Applied Behavior Analysis Certificate is designed for individuals who have already earned a master's degree in Psychology or a related discipline and who would like to complete the course work and practicum required to sit for the Board Certified Behavior Analyst (BCBA) exam. Students wishing to enroll in this option must formally apply. Additional information can be obtained by contacting the faculty coordinator. The certificate will be granted by the School of Human Sciences and Humanities upon completion of the following courses:

PSYC 5235	Learning Principles	3 hours
PSYC 6238	Applied Behavior Analysis	3 hours
PSYC 6031	Behavioral Assessment	3 hours
PSYC 6239	Behavioral Interventions I ¹	3 hours
PSYC 6331	Behavioral Interventions II ¹	3 hours
PSYC 6330	Research & Practicum in Applied Behavior Analysis ²	6 hours

¹ This seminar course includes class meetings and up to 10 hours per week of field activities in home, school and clinic settings.

² This course requires completion of a research project and 20 hours per week of field experience in home, school or clinic settings for two semesters (3 credits per semester).

Only courses in which a B- or better is earned may be applied toward the Master of Arts in Behavior Analysis or the Certificate in Applied Behavior Analysis. Grades of C+ or below are not acceptable.

BEHAVIORAL SCIENCES - GENERAL (MASTER OF ARTS)

The graduate plan in Behavioral Sciences leads to the master of arts (MA) degree. The plan is a vehicle for advanced study of human behavior. Although course work is taken primarily in psychology, sociology and cross-cultural studies, students are encouraged to take additional course work in other appropriate areas. Applicants should have strong undergraduate preparation in the behavioral sciences; those with fewer than 12 upper-level hours are required to take additional undergraduate course work at UHCL. Inquiries should be addressed to the HSH Advising Coordinator.

DEGREE REQUIREMENTS

The Candidate Plan of Study (CPS) must include the following requirements:

1. A minimum of twelve undergraduate upper-level hours in the behavioral sciences (anthropology, psychology, sociology). If this requirement has not been met prior to admission, then such courses must be taken before beginning work toward the master of arts.
2. A minimum of six hours in one of the following master's options.
 - a. Master's Thesis
 - b. Master's Project
 - c. Graduate Internship
3. Registering for a master's thesis, project or internship should not be seen as an automatic right. Students wishing to do a master's option must submit a master's option proposal. For the thesis or project the proposal should be three to six pages in length. It should include a literature review, with references and a statement of the proposed methodology for carrying out the thesis or project. Before registering for thesis or project students must have the approval of a faculty member who agrees to supervise the work. Before registering for an internship students must apply through the internship coordinator and meet the required criteria, including a grade point average of 3.00 or better. The university reserves the right to deny admittance to or remove a specific student from a specific internship.
4. Grades of "B-" or better must be earned for at least 30 hours of course work. Grades of "C+" or below are not acceptable for these 30 hours.
5. Maximum of 12 graduate credits earned at another institution may be applied toward the master of arts degree if the following requirements are met:
 - a. The course or courses are pertinent to the degree objective and the CPS.
 - b. The course or courses were taken not more than five years before admission to graduate study at UHCL.
 - c. Grades of "B-" or better were earned. Grades of "C+" or below are not acceptable.
 - d. The course or courses were not applied to a graduate degree already earned.
 - e. The course or courses were not taken by correspondence or extension
6. At least 24 credits of the degree plan must be earned at UHCL.

GENERAL REQUIREMENTS

PSYC 6036/6037	Research Design and Statistics I and II or	6 hours
SOCI 6730 and SOCI 6731	Graduate Statistics and Graduate Rsrch Meth	
CRCL 5031	Cultural Diversity or	3 hours
CRCL 5035	Human Rights and Social Justice	
PSYC 5031	Human Growth and Development	3 hours
SOCI 5333	Minorities and Majorities or	3 hours
SOCI 5236	Religion and Global Change or	
SOCI 5334	Social Stratification	

PSYC 6739/SOCI 6739 ^{1,2}	Graduate Internship or	6 hours
PSYC 6839/SOCI 6839	Master's Project or	
PSYC 6939/SOCI 6939	Master's Thesis	

¹Completion of PSYC 5134 Interviewing and Assessment is a prerequisite for an internship in a human services setting, unless an equivalent course has been taken previously.

²PSYC 5135 Professional Issues in Human Services is a prerequisite for all internships.

AREA OF SPECIALIZATION

Students select 15 hours from the behavioral sciences or other relevant disciplines with the approval of the academic adviser and the HSH Advising Coordinator. In addition, students must develop with their advisers a written focus statement that will guide their elective course work. This focus statement will be attached to the degree plan.

WOMEN'S STUDIES SUB-PLAN

As part of the 15 remaining hours at least 9 hours selected from:

CRCL 5131	Gender, Culture and Power
PSYC 5337	Violence Against Women
PSYC 5533	Psychology of Gender, Race & Sexuality
PSYC 5732	Seminar in Women's Studies (strongly recommended)
PSYC 5831	Gender Persp in Therapy

An additional three hours of Women's Studies courses selected from graduate level HIST/LITR/ HUMN/PHIL/ARTS. An additional 3 hours of electives.

INDUSTRIAL/ORGANIZATIONAL (I/O) SUB-PLAN

The I/O Sub-Plan is designed for students who seek training in such areas as training and development and human resources. Internships are available only in the fall and spring semesters in this sub-plan and may not be available outside of regular work hours. Please note that an Internship requires PSYC 5134 Interviewing and Assessment and PSYC 5135 Professional Issues in Human Services as prerequisites.

Core Course requirements (18 hours):

PSYC 5331	Personnel Psychology
PSYC 5332	Organizational Psychology
PSYC 5334	Change and Organizational Development
PSYC 6036	Res Design and Stat I
PSYC 6037	Res Design and Stat II
PSYC 6734	Assessment in Industry

Approved electives 15 hours

Master's Options

Students select one of the options listed below:

PSYC 6739	Graduate Internship or	6 hours
PSYC 6839	Master's Project or	6 hours
PSYC 6939	Master's Thesis or	6 hours

Course Work Option

Students selecting a course work option will take all 18 hours of course work listed under the core course requirements for the I/O Sub-Plan plus PSYC 6735 Seminar in I/O Psychology plus 21 hours of approved electives.

FOR MASTER OF ARTS IN CLINICAL PSYCHOLOGY PLEASE SEE PROFESSIONAL PSYCHOLOGY

CRIMINOLOGY (MASTER OF ARTS)

The graduate plan in Criminology leads to the master of arts (MA) degree. This degree requires 36 hours with a thesis, project or internship; or 39 hours with the course work option.

The academic goal of the plan is to provide students with a comprehensive, in-depth 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 knowledge and skills needed to attain successful careers within the criminal justice system or advance in their current careers.

GENERAL REQUIREMENTS

CRIM 5036	Research Design and Statistics I	3 hours
CRIM 5037	Research Design and Statistics II	3 hours
CRIM 5136	Race and Crime	3 hours
CRIM 5331	Advanced Criminology	3 hours
CRIM 5336	Law and Society	3 hours

Six hours selected from the following core courses:

CRIM 5133	Advanced Juvenile Delinquency	3 hours
CRIM 5139	Correctional Institutions	3 hours
CRIM 5338	Criminal Law	3 hours
CRIM 5432	Sociology of Law Enforcement	3 hours

Master's Options

Students select one of the following options:

CRIM 6739	Graduate Internship	6 hours
CRIM 6839	Master's Project	6 hours
CRIM 6939	Master's Thesis	6 hours

Students choosing one of these three options must select nine hours of electives from Criminology and/or other relevant disciplines with the approval of their academic adviser for a total of 36 hours.

or

Course Work Master's Option

Students selecting the course work option must take CRIM 6735 Seminar in Criminology plus 15 hours of electives from Criminology and/or other relevant disciplines for a total of 39 hours. Students may not enroll in CRIM 6735 until they have completed at least 24 hours of their degree plan.

Available Criminology Electives:

CRIM 5135	The Death Penalty	3 hours
CRIM 5137	Prevention and Control of Crime	3 hours
CRIM 5138	Homeland Security	3 hours
CRIM 5332	White-Collar Crime	3 hours
CRIM 5333	Computer Crime	3 hours
CRIM 5335	Criminal Justice and the Mass Media	3 hours
CRIM 5339	Comparative Criminology	3 hours
CRIM 5431	Domestic Violence	3 hours
CRIM 5433	Serial Murder	3 hours
CRIM 6734	Future of Crime and Justice	3 hours

Courses from the core course list not utilized to fulfill the core requirement may be used as electives.

Graduate students may not apply more than six semester hours of online graduate course work toward the M.A. in Criminology.

CROSS-CULTURAL STUDIES (MASTER OF ARTS)

The master of arts (MA) plan in Cross-Cultural Studies examines the relationships among culture, diversity and power in the U.S. and in a global context. The plan emphasizes the study of differences and inequalities structured by race, gender, ethnicity, class, sexuality and nationality. It develops understanding of social and political conflict and strategies of conflict resolution. Cross-Cultural Studies is an interdisciplinary plan including disciplines as diverse as Anthropology, History, Literature and Sociology. By exploring similar questions in diverse disciplines and using a range of methodological approaches, students gain an understanding of the complexities of culture and diversity. The plan emphasizes religion, gender, human rights and immigration. Focusing on contemporary and historical issues, courses provide theoretical and practical training that can be applied in a variety of fields, including non-profit, legal, service, religious and educational institutions, among others.

DEGREE REQUIREMENTS

Core: 9 hours required

CRCL 5031	Theories of Cultural Diversity
CRCL 5037	Theories and Practices of Mediation
CRCL 5631	Cross-Cultural Methods

Foundation: 6 hours required

CRCL 5032	Political Economy
CRCL 5033	Religion and Community
CRCL 5035	Human Rights and Social Justice
CRCL 5131	Gender, Culture and Power

Race and Culture: 6 hours required

*CRCL 5132	Women of Color
CRCL 5531	Families, Communities and Globalization
CRCL 5731	Seminar in American Multicultural Literature
HIST 5232	U.S. Social Movements
HIST 5432	Studies in European History

HIST 5434	Studies in Latin American History
LITR 5437	Literature and Culture
PSYC 5533	Psychology of Gender, Race & Sexuality
SOCI 5333	Minorities and Majorities

Perspectives on Globalization: 6 hours required

ANTH 5333	Cultures of Mexico and Central America
ANTH 5535	Cultures of Asia
CRCL 5039	Environment and Society
CRCL 5537	Cultures of Africa
CRCL 5538	Cultures of the Middle East
HUMN 5035	Texts and Images III
SOCI 5537	Urban Problems

Electives: 3 hours required

Select Any of the Above Courses -or-

PSYC 5338	Cross-Cultural Communications
PSYC 6237	Culture and Consciousness

Master's Option: 6 hours required

Thesis, Project or Internship (students are encouraged to select the internship option). Students must contact the internship coordinator or thesis/project adviser the semester before beginning an internship, project or thesis.

Course Work Option:

Students selecting a course work option will complete 36 hours of courses plus CRCL 6735 Research Seminar in Cross-Cultural Studies for a total of 39 hours.

DIGITAL MEDIA STUDIES (MASTER OF ARTS)

The graduate degree in Digital Media Studies is the first of its kind in Texas. It provides students with cutting-edge interdisciplinary instruction in digital media theory and skills.

The degree responds to a cultural shift toward media convergence by giving students the flexibility to create an academic plan that best meets their intellectual needs and career goals. After completing a core curriculum, students may select digital media courses in communication, art, business, computer programming, gaming and instructional technology.

Courses in the Digital Media Studies degree are organized into three foundational areas: Concept, Design and Production. Exposure to each of these areas is essential to understand how digital media are produced, delivered and used. Students are required to take nine hours of core courses and six hours in each of the foundational areas. Students then select three additional hours in the foundational area that most interests them. Their course work is followed by a 6-hour capstone experience in the form of a graduate internship, master's project or master's thesis. The degree requires 36 hours of study.

Students without adequate undergraduate experience in computer software or graphics may be required to take preparatory courses at the undergraduate level before entering the program. A Computer Imaging course or its equivalent is considered the minimal level of preparation required.

REQUIREMENTS

Core Requirements (9 hours)

DMST 5031	Graphic Design ¹
DMST 5230	Critical Approaches to Digital Media
DMST 5232	Technical Foundations of Digital Media

¹Students who have taken Graphic Design in another program may take Advertising Design or Illustration as an alternative.

Concept (6 hours)

DMST 5034	Global Issues in Film
DMST 5233	Digital Media Law and Ethics Seminar
DMST 5234	Public Relations Writing
DMST 5831	Project Management
MKTG 5031	Marketing Essentials for the 21st Century: Creating Customer Value
MKTG 5931	E-Marketing Management
MGMT 5638	Managing Technical and Professional People

Design (6 hours)

DMST 5033	Advertising Design or COMM 5035 Illustration
DMST 5038	Advanced Digital Photography
DMST 5039	Web Design (or INST 5635)
DMST 5139	Advanced Web Design (or INST 5735)
DMST 5231	Advanced Digital Media Design
PSYC 6431	User Centered Design

Production (6 hours)

COMM 3231	Writing for the Media**
CSCI 4632	Computer Game Programming: Theory and Practice (Prereq: DMST 5132)**
DMST 5036	Digital Video
DMST 5132	3D Modeling
DMST 5235	Animation
DMST 5236	Digital Storytelling
DMST 5332	Compositing
*DMST 5436	Flash Animation
*DMST 5534	Video Editing & Production
*DMST 5535	Advanced Video Production & Editing
DMST 5538	Desktop Publishing
ISAM 5030	Fundamentals of Business Programming
ISAM 5638	Advanced Applications Programming with JAVA (Prereq: ISAM 5030)

Elective (3 hours)

Select one additional course from the Concept, Design or Production area. New courses are introduced under the DMST 5931: Research Topics rubric. If a scheduled course is not listed in the curriculum, consult with your adviser to determine whether it falls under the concept, design or production area.

*Pending Coordinating Board approval.

**No more than six hours of the undergraduate courses included in the curriculum may apply to the degree.

Capstone Experience (6 Hours)

DMST 6739 or 6769:	Graduate Internship or	
DMST 6839:	Master's Project or DMST 6939:	Master's Thesis

FOR MASTER OF ARTS IN FAMILY THERAPY PLEASE SEE PROFESSIONAL PSYCHOLOGY

FITNESS AND HUMAN PERFORMANCE (MASTER OF SCIENCE)

The graduate plan in Fitness and Human Performance leads to the master of science (MS) degree. The plan is designed for students preparing for careers as coaches, strength and conditioning professionals and exercise fitness specialists, where their prime duty is initiating, directing and evaluating exercise and testing programs. Applicants should have basic course work in health and fitness, including course work in the physiology of exercise and biomechanics. If these requirements have not been met, such courses must be taken before the degree can be awarded. These hours will not count toward the 36 hours required for the master's degree.

DEGREE REQUIREMENTS

Core Requirements (21 hours)

HLTH 5131	Applied Neuromuscular Physiology
HLTH 5132	Applied Cardiovascular Physiology
HLTH 5133	Sports Nutrition
HLTH 5335	Exercise Principles for Special Populations
HLTH 6032	Adv Sem in Sports Medicine
HLTH 6033	Lab Techniques and Res Design
HLTH 6035	Stat in Exercise Science

Select 9 hours from the following:

HLTH 5231	Tech/Hum Performance
HLTH 5931	Res Topics in Health
HLTH 5939	Independent Study in Human Performance
HLTH 6037	Advanced Seminar in Peak Performance

Master's Option (6 hours)

Students select one of the options listed below:

HLTH 6739	Graduate Internship
HLTH 6839	Master's Project
HLTH 6939	Master's Thesis

Master's projects, theses and internships require continuous registration during each fall and spring semester until completion, for a minimum of six hours. If students do not maintain continuous registration in the master's project, thesis or internship, previously accumulated master's option credits will not count toward the master's degree.

FITNESS AND HUMAN PERFORMANCE CERTIFICATE

The Fitness and Human Performance certificate is designed for individuals with a bachelor's degree who are not seeking a master's degree in Fitness and Human Performance, but who do want to receive specific instruction in fitness, exercise, nutrition and human performance. The certificate will be granted by the School of Human Sciences and Humanities upon completion of the 12-hour curriculum. Credit hours completed as part of the certificate program may be applied to the Fitness and Human Performance master's plan upon completion of admission requirements to the

degree-seeking plan. Non-degree-seeking students are subject to the university's academic standards and do not differ from degree-seeking students in regard to any other university policies.

CERTIFICATE REQUIREMENTS

HLTH 5131	Applied Exercise Physiology: (Neuromuscular)
HLTH 5132	Applied Exercise Physiology: (Cardiopulmonary)
HLTH 5133	Sports Nutrition
HLTH 6032	Advanced Seminar in Sports Medicine or
HLTH 6037	Advanced Seminar in Peak Performance

HISTORY (MASTER OF ARTS)

The graduate plan in History leads to the master of arts (MA) degree. Since the plan is designed to facilitate an advanced level of historical inquiry, applicants for graduate degree candidacy should have had a sound undergraduate training in history. Students lacking sufficient background may be required to take supplementary course work before being admitted to candidacy.

DEGREE REQUIREMENTS

All students seeking the master of arts degree in History must complete HIST 5031: Research and Methods Seminar in the first 12 hours of course work. This course is offered in fall semester only. In addition, at least nine hours must be taken in historical areas outside the student's sub-plan. If the student's sub-plan is the United States, at least one of the three courses must be in the history of Latin America and one in the history of Europe. If the student's sub-plan is Europe, at least one of the three courses must be in the history of Latin America and one in the history of the United States.

Master's degree candidates prepare a Candidate Plan of Study (CPS) with the assistance and approval of a faculty adviser. All master's degree options must contain a minimum of 30 graduate semester credit hours. Only courses in which a grade of "B-" or better is earned may be applied toward any of the plans for a Master of Arts Degree in History. Grades of "C+" or below are not acceptable.

The master's degree Option 1 requires a minimum of 30 graduate semester hours including six hours of Master's Thesis Research and, at the discretion of the thesis adviser, an oral defense of the thesis. Option 2 requires a minimum of 36 semester hours including six hours of Master's Project Research and an oral examination upon completion of the project. Option 4 requires a minimum of 36 semester hours of course work plus written and oral comprehensive examinations in the last semester. The written component will be based on two broad historical fields, with reading lists to be developed by the examination committee. The oral exam will follow, permitting detailed discussion of the written material. Students seeking a graduate degree in Humanities and whose Candidate Plans of Study have a history emphasis, will follow the guidelines noted above.

For the successful completion of master's degree Option 1, the Master's Thesis, students are expected to do original work in some field of historical inquiry. Emphasis should be placed on the creative use of materials and methods, including those which can be appropriately borrowed from complementary disciplines such as literature, art, sociology and psychology.

To complete master's degree Option 2, the Master's Project, students are expected to make contributions to the collection and organization of useful and important historical materials: for example, the collection and transcription of interviews or the recording, identification and dating of historical buildings and building sites in the area. A project need not be limited to the traditional style, but may include forms such as the extended review essay or studies in film, video or theater.

Master's projects and theses require continuous registration during each fall and spring semester until completion, for a minimum of six hours. If students do not maintain continuous registration in the master's project or thesis, previously accumulated master's option credits will not count toward the master's degree.

HUMANITIES (MASTER OF ARTS)

The graduate plan in Humanities leads to the Master of Arts (MA) degree. The plan combines interdisciplinary study in the humanities with a sub-plan in the study of Texts (Sub-Plan I) or Images (Sub-Plan II). The Humanities disciplines include arts, communications, history, humanities, literature and philosophy. The degree emphasizes the broad sweep of culture and students are exposed to concepts and achievements that are global in origin and scope. Students may enroll with degrees from the humanities or from other fields, although some course preparation in the humanities is desirable. The plan emphasizes faculty advisement and mentoring. The capstone experience - thesis, project or internship - provides an opportunity to work closely with a faculty member or professional mentor. For additional information about the degree, contact the HSH Advising Coordinator.

DEGREE REQUIREMENTS

All master's degree options must contain a minimum of 30 graduate semester hours. The degree consists of a required core (9 hours), a sub-plan (minimum of 15 hours) and a master's option (thesis, project, internship or additional course work). With the approval of their faculty advisers, students pursuing a master's degree in humanities may take up to six hours of credit outside the following rubrics: ARTS, COMM, HIST, HUMN, LITR and PHIL. Further exceptions are at the discretion of the Humanities and Fine Arts Division Chair in consultation with the faculty adviser.

Required Core (9 hours). The core introduces students to significant texts and images in western and non-western civilizations:

HUMN 5031	Texts and Images I
HUMN 5033	Texts and Images II
HUMN 5035	Texts and Images III

SUB-PLANS (MINIMUM 15 HOURS)

Students select one of two sub-plans: Texts or Images. Sub-Plan I, Texts, focuses on literary, historical, philosophical, psychological and critical written works. Students select from courses in ARTS (Art History), COMM¹, HIST, HUMN, LITR and PHIL. Sub-Plan II, Images, includes course work in studio art, lens media (photography and video), visual communication (graphic design) and art history. A minimum of 18 undergraduate hours in ARTS courses is required. Included in the 18 required hours must be courses in drawing, painting, sculpture, art history and two additional foundation courses to be determined with an ARTS faculty adviser.

¹Students should note that many graduate COMM courses have prerequisites.

MASTER'S OPTIONS

Students select one of the following options for completing the MA in Humanities degree:

- Thesis Option: 24 hours of course work plus 6 hours of thesis research (30 hours total)
- Project Option: 30 hours of course work plus 6 hours of project research (36 hours total)
- Internship Option: 30 hours of course work plus 6 hours of internship (36 hours total)
- Course Work Option: 36 hours of course work plus a comprehensive written examination (36 hours total)

The thesis, project or internship should be interdisciplinary in its orientation, concept and content. Master's projects, theses and internships require continuous registration during each fall and spring semester until completion, for a minimum of six hours. If students do not maintain continuous registration in the master's project, thesis or internship, previously accumulated master's option credits will not count toward the master's degree. Studio arts and applied graphic design students select project or internship options only.

AMERICAN STUDIES

Students concentrating in American Studies select Sub-Plan I, Texts, and complete a minimum of 15 hours of course work in the American Studies courses listed below. Students who intend to write a thesis or complete a project or internship may elect no more than two courses from any one rubric. Students in the course work option must select a balanced plan of study with the approval of their adviser. All American Studies students must complete at least one course in a Human Sciences rubric.

Five with American (Western Hemisphere) Content:

ANTH 5333
HIST 5132
HIST 5133
HIST 5138
HIST 5232
HIST 5233

HIST 5234
HIST 5235
HIST 5237
LITR 5431¹
LITR 5731¹
SOCl 5333
SOCl 5334
SOCl 5336

¹ Courses may be repeated for credit when content varies.

Other courses with more than 50% American content will also fulfill this requirement. Theses, projects or internships will deal with an Americanist subject.

PROFESSIONAL WRITING/APPLIED GRAPHIC DESIGN

Students who wish to complete a concentration in Professional Writing/Applied Graphic Design will select Sub-Plan I, Texts. A minimum of 15 hours is required for the concentration; 12 hours must come from Professional Writing or Applied Graphic Design courses. Theses, projects or internships will deal with Professional Writing or Applied Graphic Design subjects. Students who elect to study Applied Graphic Design should be proficient in photography or digital photography and basic computer problem-solving skills.

PROFESSIONAL WRITING CERTIFICATE

Students who successfully complete at least 12 hours of approved professional writing courses can apply for a Certificate of Professional Writing. Eligible students should contact the Humanities Professional Writing Certificate Coordinator early in the semester in which they expect to graduate.

WOMEN'S STUDIES

Students concentrating in Women's Studies select Sub-Plan I, Texts. A minimum of 15 hours is required for the concentration; 12 hours must be in Women's Studies courses. Theses, projects or internships will deal with a related subject.

LITERATURE (MASTER OF ARTS)

Graduate studies in Literature at UHCL lead to the Master of Arts (M.A.) degree. Students may study literature from the distant past to the present. Sub-plans are available in American Studies, Composition and Rhetoric, Creative Writing or Professional Writing.

Applicants for admission should have sound undergraduate training in literature. Students lacking a sufficient background may be required to take additional undergraduate courses before admission to candidacy or before continuing in graduate courses. Applications and inquiries should be addressed to the university Office of Admissions or HSH Advising Coordinator.

DEGREE REQUIREMENTS

Every M.A. candidate is assigned an adviser from the full-time Literature faculty. Early in registration, the candidate meets with the faculty adviser to create an individual Candidate Plan of Study (CPS).

The Literature M.A. offers 3 plans of study featuring 3 "capstones":

- Course Work-Comprehensive Option (default plan): 36 hours of course work + comprehensive written exam.
- Project Option: 30 hours of course work + project (6 hours minimum).
- Thesis Option: 24 hours of graduate course work + minimum of 6 hours thesis + defense conference. (This option requires fewer minimal hours than other options but in practice often takes more semesters to complete.)

All students initially register for the Course Work-Comprehensive Option. This option offers the broadest exposure to literature. It is usually the fastest and lowest-cost path to complete the Master's degree in Literature. Unlike the Thesis and Project options, it rarely requires additional semesters.

Students who wish to pursue the Project or Thesis options must petition for reclassification as they approach the 24-hour course work minimum. Procedures for all three options are detailed in the "Capstone Options Guide" for Literature M.A. Students, available on UHCL's Literature program webpage (<http://hsh.uhcl.edu/LITR>). During their first year of graduate work, all candidates for the M.A. in Literature must take LITR 5132: Literary Theory.

Students must also take at least 12 hours of "reading-centered" courses involving analysis of literary texts: e.g., American Literature, Literature and Gender, British Literature-Pre-Restoration.

MINIMAL NUMBERS OF LITR AND GRADUATE HOURS.

Most of an M.A. student's course work must be in graduate Literature courses—courses listed under the LITR rubric with numbers in the 5000 series. Two courses may be filled by "Texts and Images" courses from Humanities: HUMN 5031, 5033, 5035. In special cases, faculty advisers may authorize non-LITR or undergraduate courses. All such courses must support the primary graduate LITR courses in an intellectually coherent plan of study.

Each Capstone Option requires a minimal number of graduate LITR courses.

- Course Work-Comprehensive Option: at least 27 of 36 course work hours must be graduate LITR (including options for two HUMN Texts and Images courses).
- Project Option: at least 21 of 30 course work hours must be graduate LITR (including options for two HUMN Texts and Images courses).
- Thesis Option: at least 18 of the 24 course work hours must be graduate LITR (including options for two HUMN Texts and Images courses).

All Master's degree options require a minimum of 30 graduate semester hours.

- Thesis Option: a minimum of 30 graduate semester hours including at least six hours of LITR 6939 Thesis Research.
- Project Option: a minimum of 36 semester hours including at least six hours of LITR 6839 Project Research.
- Course Work-Comprehensive Option: a minimum of 36 semester hours of course work, of which six hours may be undergraduate without special permission.

Master's projects and theses require continuous registration during each fall and spring semester until completion, for a minimum of six hours. If students do not maintain continuous registration in the Master's project or thesis, previously accumulated Master's option credits will not count toward the Master's degree.

Candidates for the Thesis Capstone Option are expected to write an original essay in criticism and/or scholarship, or an original creative work of substantial complexity and quality that demonstrates clear mastery of its form. Students wishing to write creative theses must take at least one of the graduate Seminars in Creative Writing (LITR 5430).

Candidates for the Project Capstone Option undertake some other original work. Scholarship may be combined with lesson plans for teaching at various levels. Creative writing projects may include a piece of creative writing such as a lengthy short story, a one-act play, a collection of poems or a novel. Unusual topics, experimental genres and interdisciplinary approaches may be explored.

Candidates for the Course Work-Comprehensive Option are required to pass a comprehensive examination based on readings from their individual course work. See the online Capstone Options Guide for details. Examinations are designed to reflect and support the course of study students have chosen.

COMPOSITION AND RHETORIC AND PROFESSIONAL WRITING SUB-PLANS

Students may obtain an M.A. in Literature with an emphasis in Composition and Rhetoric or Professional Writing. The Composition and Rhetoric Sub-Plan prepares students to teach composition at the community college and university levels. The Professional Writing Sub-Plan prepares students for positions as business, science and technical writers.

Composition and Rhetoric Sub-Plan

Required Courses (9 hours total)

LITR 5130 Composition: Theory and Practice-Required

Six additional units from any of the following:

LITR 5037	Writing for the Technical Professions
LITR 5038	Writing for the Business Professions
LITR 5039	Editing
LITR 5131	Studies in Composition & Rhetoric (variable topics)
LITR 5739	Writing Center Practicum and one semester tutoring in Writing Center
LITR 6739	Graduate Internship

Professional Writing Sub-Plan

Required Courses - Select 9 hours from the following courses:

LITR 5036	Public Relations Writing
LITR 5037	Writing for the Technical Professions
LITR 5038	Writing for the Business Professions
LITR 5039	Editing
LITR 5131	Studies in Composition and Rhetoric (recommended for students who plan to teach Professional Writing)

AMERICAN STUDIES SUB-PLAN, M.A. IN LITERATURE

The sub-plan in American Studies provides a broad understanding of the relationship between American literature, history and culture. It prepares students to study for the Ph.D. in American Studies or Literature or to pursue careers in government or foreign service.

Students complete the requirements of the Literature degree and include the following in their plans:

LITR 5132 Literary Theory

Two courses from ANTH 5032, LITR 5431, LITR 5731 (may be repeated for credit when content varies).

One course with American (Western Hemisphere) content from ANTH, ARTS, SOCI, HIST, HUMN, PHIL, WMST.

Note: One of the above courses must be in ANTH or SOCI.

PROFESSIONAL PSYCHOLOGY PLANS

The graduate programs in Professional Psychology lead to the master of arts (MA) degree. These plans provide a background in psychology as an academic discipline along with specific course work and specialized training in one of three areas: (1) Clinical Psychology, (2) Family Therapy or (3) School Psychology. While completing a Professional Psychology Plan does not automatically qualify graduates for any specific license or clinical credential, many of our graduates have been successfully licensed in Texas as a Licensed Psychological Associate (LPA), Licensed Specialist in School Psychology (LSSP), Licensed Professional Counselor (LPC) and/or Licensed Marriage and Family Therapist (LMFT) or by a number of other professional boards or associations. For further information about certification and licensure, contact the Coordinator of Graduate Programs in Professional Psychology or the HSH Advising Coordinator.

Admission into a Professional Psychology Plan will be offered only to the most qualified applicants. The ordinary minimum standard for admission is an overall 3.250 grade point average, the prerequisite psychology preparation for each program as listed in the plan description below and evidence of clinical aptitude. The percentage of applicants accepted into the professional plans generally ranges between 25% and 75% depending on the program.

APPLICATION FOR ADMISSION

The application process is restricted to only one plan. There is an application fee for the plan application payable to the University of Houston-Clear Lake as described

below, which is in addition to the application fee for university admission. All application materials must be submitted in a single envelope, including recommendations and transcripts, submitted as described below. Applicants submit GRE scores to the university following the standard reporting procedure as well as entering them onto the plan application form. Applicants are advised that they must complete a university Application for Admission and submit it and all required fees and documents to the university Admissions Office before beginning the plan, in addition to the plan application described here.

Application for admission to a Professional Psychology Plan:

1. All application materials must be submitted to the appropriate admissions committee in a single envelope, including recommendations and transcripts which are submitted as described below.
2. Professional Psychology application components:
 - b. The Professional Psychology Programs Application (form found in the Professional Psychology Brochure or on the university's Web site)
 - c. A brief curriculum vitae (a résumé including relevant course work and paid or volunteer work experiences, any honors, presentations, papers and other life experiences that should be considered)
 - d. A brief (up to 1000 word) essay stating reasons for wanting this training and how it fits into career goals
 - e. Three Recommendations for Applicant Admission (form found in the Professional Psychology Brochure or on the university's Web site)
 - f. Transcripts from all colleges and universities previously attended (These are in addition to the transcripts sent directly to the UHCL Office of Admissions); applicants should collect all transcripts and include them in the application envelope
 - g. A \$35 check or money order made payable to: UHCL Professional Psychology Plans
 - h. Scores on the Graduate Record Examination (GRE) General Test
 - i. Documents listed in a-f must be sent together in a single envelope to:

*_____Admissions Committee
School of Human Sciences and Humanities
University of Houston-Clear Lake
2700 Bay Area Blvd.
Houston, Texas 77058-1098

*Name of Plan: Clinical Psychology, Family Therapy or School Psychology

3. Deadline for Application and Notification of Admissions Decision. Applications are accepted once a year between December 10th and January 25th for review in the Spring. Applicants have the responsibility to insure that their applications for UHCL admission, GRE scores and supporting transcripts are received by the university Office of Admissions and the Professional Psychology application envelope containing all required documents is received by the appropriate

committee within the dates given above. The three admissions committees notify applicants of admissions decisions usually by April 1st.

4. Additional information regarding applications. Any evidence of tampering with recommendations or transcripts could result in disqualifying applicants from admission. Applicants should note that admission to graduate status at the university is not equivalent to admission to one of the Professional Psychology Plans. In some cases, applicants may be contacted by the advising office; any such communication refers only to acceptance into graduate status in the university based on the application for university admission described above. This should not be confused with acceptance into one of the Professional Psychology Plans. Applicants are not admitted into a Professional Psychology Plan until they receive formal notice from the Professional Psychology Plan director that they have been accepted into the plan. Applicants should direct any questions regarding the status of their application to the Coordinator, Graduate Plans in Professional Psychology. If students are not accepted into a Professional Psychology Plan, they may apply for admission to a non-clinical master's plan. Information regarding these plans is available in the advising office, School of Human Sciences and Humanities. However, applicants to a non-clinical master's plan should be aware of the information in the section below entitled "Restricted Courses."
5. Scholarships. Limited scholarships for tuition and fees for Professional Psychology students are available on a competitive basis. Scholarships may also carry a waiver of out-of-state tuition for qualified recipients. For information and application forms, applicants should contact the HSH Advising Coordinator.

RESTRICTED COURSES

Applicants should note the following courses that are restricted to students formally admitted to one of the Professional Psychology plans. Restricted courses may not be taken by graduate students in the General Psychology plan or transitional students not yet admitted into a Professional Psychology Plan.

*PSYC 5111	Orientation to School Psychology
PSYC 5136	Multicultural Counseling
PSYC 5138	Mindfulness and Acceptance Therapies
PSYC 5231	Psychotherapy: Theory & Research
PSYC 5234	Family Life Cycle
PSYC 5236	Family Assessment
PSYC 5239	Group Therapy
PSYC 5731	Basic Psychotherapy Skills
PSYC 5734	Prof Practice and Ethics
PSYC 5738	Family Ther Practicum
PSYC 5832	Clinical Hypnosis
PSYC 6032	Intellectual Assessment
PSYC 6033	Personality Assessment
PSYC 6034	Consultation in School Psyc
PSYC 6038	Clinical Practicum
PSYC 6039	School Psyc Practicum
PSYC 6111	Student Diversity in Learning

PSYC 6121	Ethics and Law in School Psyc
PSYC 6132	Seminar in Professional School Psychology
PSYC 6133	Pers Assess of Child
PSYC 6136	Marital/Family Interaction
PSYC 6137	Family Research
PSYC 6139	Intervention I: Academic & Cognitive Skills
PSYC 6230	Intervention II: Social & Behavioral Skills
PSYC 6231	Intervention III: Affective and Adaptive Skills
PSYC 6233	Adv Family Therapy
PSYC 6234	Systems and Symptoms
PSYC 6236	Child Adol FamTher
PSYC 6332	Intervention IV: Program Design
PSYC 6531	Psychopathology
PSYC 6534	Couple and Sex Therapy
PSYC 6636/	Clinical Internship
PSYC 6666	

*Pending Coordinating Board approval

REVIEW OF PROGRESS

Continuation in a professional program requires satisfactory academic performance and the acquisition of appropriate clinical and professional skills and personal attributes. Students admitted to the plans will be evaluated annually for academic progress and appropriate professional behavior and development. An unsatisfactory evaluation may lead to probation or, in extreme cases, termination from the plan. The policies and procedures for each plan contain further information regarding these matters and may be obtained from the convener for each plan.

GRADE REQUIREMENTS

Only courses in which a grade of "B-" or better is earned may be applied toward any Professional Psychology Plan requirement. Grades of "C+" or below are not acceptable.

MASTER OF ARTS IN CLINICAL PSYCHOLOGY

The Clinical Psychology Plan prepares students to work in the mental health field and includes theoretical training and practical experience in psychological assessment and psychotherapy. The plan is a member of the Council of Applied Master's Programs in Psychology (CAMPP) and adheres to the academic and training standards of CAMPP. Graduates of the plan regularly meet the requirements for licensure as a Professional Counselor and/or Psychological Associate.

Prerequisites (15 hours)

Fifteen hours of undergraduate psychology course work in Introductory Psychology, Theories of Personality, Abnormal Psychology, Social Psychology and three additional hours of upper-level psychology.

A number of courses below have prerequisite requirements and are restricted to students admitted into a Professional Psychology Plan. See the Course Roster at the end of the

catalog for information about prerequisite requirements and the section above on restricted courses.

Required Plan Core Courses (21 hours)

PSYC 5031	Human Growth and Dev
PSYC 6531	Psychopathology
PSYC 5235	Learning Principles
PSYC 5734	Prof Practice & Ethics
PSYC 6036/PSYC 6037	Res Design & Stat I & II
PSYC 6134	Bio Basis of Behavior

Sociocultural Elective (select one course, 3 hours)

PSYC 5136	Multicultural Counseling
PSYC 5437	Aging
PSYC 5533	Psychology of Women
PSYC 5534	Minorities and Majorities
PSYC 5535	Cross-Cult Persp on Family
PSYC 5831	Gender and Cultural Perspect in Thrpy

Assessment Requirements (select two courses, 6 hours)

PSYC 6031	Behavioral Assessment
PSYC 6032	Intellectual Assessment
PSYC 6033	Personality Assessment

Therapy Requirements (four courses, 12 hours)

PSYC 5231	Psychotherapy Theory/Res
PSYC 5731	Basic Psychotherapy Skills
PSYC 5239	Group Psychotherapy
PSYC 6235	Beh/Cognitive Therapies

Therapy Electives (select two courses, 6 hours)

PSYC 5138	Mindfulness and Acceptance Therapies
PSYC 5233	Intro to Family Therapy
PSYC 5434	Intro to Art Therapy
PSYC 5735	Anxiety and Stress Management
PSYC 5736	Behavioral Medicine
PSYC 5831	Gender and Cultural Persp in Therapy
PSYC 5832	Clinical Hypnosis
PSYC 5833	Transpersonal Therapy
PSYC 6534	Couple and Sex Therapy

Other courses may be substituted with consent of adviser.

Free Elective (3 hours)

Supervised Clinical Experience (12 hours)

TOTAL HOURS = 63

MASTER OF ARTS IN FAMILY THERAPY

The Family Therapy Plan provides theoretical and applied training in family systems theory and family therapy and is accredited by the Commission of Accreditation for Marriage and Family Therapy Education. The Family Therapy curriculum is outlined below.

Admissions

Applicants must submit all materials as listed in the Professional Psychology Plan section. All applications are initially reviewed by the Family Therapy faculty. Selected applicants are invited for group interviews during which they are evaluated on their performance in response to questions by the Family Therapy faculty. Approximately 20 successful applicants are selected into the plan each year.

Plan Requirements

Prerequisites (18 hours)

Eighteen hours of undergraduate Behavioral Sciences course work, including Introductory Psychology, Theories of Personality, Child Psychology, Abnormal Psychology, Research Design and Statistics. No undergraduate courses may be counted toward degree requirements in Family Therapy.

A number of courses below have prerequisite requirements and/or are restricted to students admitted into a Professional Psychology Plan. See the Course Roster at the end of the section for information about prerequisites and the section above on restricted courses.

Required Courses (49 hours)

PSYC 5233	Intro to Family Therapy
PSYC 5234	Family Life Cycle
PSYC 5236	Family Assessment
PSYC 5239	Group Psychotherapy
PSYC 5433	Substance Abuse: Causes and Treatments
PSYC 5731	Basic Psychotherapy Skills
PSYC 5737	Family Therapy Professional Ethics
PSYC 5738	Family Therapy Practicum (for two sems/six credits)
PSYC 6137	Family Research
PSYC 6233	Advanced Family Therapy
PSYC 6234	Systems and Symptoms
PSYC 6236	Child and Adol Family Therapy
PSYC 6531	Psychopathology
PSYC 6534	Couple and Sex Therapy
PSYC 6611 ¹	Seminar in Family Therapy

¹ This course is taken for four semesters (one credit hour per semester).

Elective (select one course)

PSYC 5031	Human Growth and Dev
PSYC 5032	Family Psychology
PSYC 5235	Learning Principles
PSYC 5434	Art Therapy
PSYC 5437	Aging
PSYC 5533	Psychology of Gender, Race & Sexuality
PSYC 5535	Cross Cult Persp/Family
PSYC 5831	Gender Persp in Therapy
PSYC 5833	Transpersonal Therapy
PSYC 5931	Res Topics in Psychology
PSYC 6134	Biological Basis of Behavior
PSYC 6136	Marital and Family Interaction

Other courses with consent of adviser

Internship (9 hours)

PSYC 6636 Clinical Internship

Three semesters with a minimum of 1000 hours, including 500 hours of direct client contact and supervision by an American Association of Marriage and Family Therapy approved supervisor.

TOTAL HOURS =61

NOTE: Students are also expected to join the American Association for Marriage and Family Therapy (AAMFT) and to attend two national or state professional meetings (AAMFT or the Texas Association for Marriage and Family Therapy) while they are in the program.

MASTER OF ARTS IN SCHOOL PSYCHOLOGY

The School Psychology Plan is based on a collaborative data-based, problem-solving model of training. The focus of the specialty is on the psycho-educational needs of children. The emphasis of the plan is on training students who will work as specialists in School Psychology within public schools. The plan is broadly designed and may also be appropriate for students who may be working with children in other settings (e.g., public agencies). The plan strives to produce school psychological specialists who have high standards of ethical, professional conduct; engage in empirically based and collaborative decision making as part of a multidisciplinary team; have a high level of competency in assessment, intervention and consultation; and have sensitivity to and respect for the uniqueness, dignity, culture and worth of each individual.

The School Psychology Plan at UHCL is approved by the National Association of School Psychologists (NASP) at the specialist level of training. The plan requires a minimum of 70 hours of course work, 58 of which are exclusive of internship.

Re-Specialization Policy*

TSBEP: Students seeking credentialing by the Texas State Board of Examiners of Psychologists (TSBEP) can develop a modified plan in consultation with their adviser and the Director of the School Psychology Plan. These students must formally apply to the plan and be accepted as outlined for all students. The plan will be designed according to requirements set forth by TSBEP and the UHCL NASP-Approved Plan. At a minimum, such students will take the School Psychology Professional Seminar, Practicum, Consultation and Internship courses.

NCSP: Students seeking credentialing as a Nationally Certified School Psychologist (NCSP) can develop a modified plan in consultation with the Director of the School Psychology Plan. These students must formally apply to the plan and be accepted as outlined for all students. The plan will be designed according to requirements set forth by the NCSP board. Such individuals will have to complete the substantial equivalent of the UHCL plan and NCSP requirements.

* It must be emphasized that TSBEP and NCSP credentials are granted by boards and not by any academic plan. Upon completion of the re-specialization plan of study, students must apply to the appropriate Board.

Admission

The School Psychology Selection Committee accepts only a limited number of students into the plan based on review and evaluation of the criteria required for application. These criteria include: complete application (application form, vita, essay and three letters of reference); official transcripts of all previous course work; GPA of 3.250 or above; GRE of 900 or above preferred; 12 hours of undergraduate Behavioral Sciences course work which must include Introductory Psychology, Child Psychology, Theories of Personality and Abnormal Psychology. These prerequisites may be waived for students who possess graduate degrees and, in some cases, a similar course may substitute for a prerequisite.

Acceptance to Candidacy

Admission to the plan as described above is not synonymous with acceptance to candidacy. Students will be evaluated for Candidacy by the primary School Psychology faculty upon completion of Practicum. Candidacy evaluation includes a feedback interview if appropriate.

Internship

The School Psychology Plan recognizes the internship as the culminating experience in specialty training. The internship consists of a minimum of 1200 hours, 600 of which must be done in a school setting. The internship occurs during the final year of training and is designed to be accomplished in a school district on a full-time basis over a period of one academic year. Interns receive a stipend during this final year of training.

End of Plan Evaluation

Students are required to take a graduate comprehensive examination upon successful completion of plan requirements (minimum GPA of 3.000; grades of "B-" or better in all course work; grades of "C+" or below are not acceptable toward the degree). The comprehensive examination has been designated to be the National Certification Examination in School Psychology (Praxis II). This is a nationally standardized examination designed to assess the entry-level knowledge and skills that might be expected of a master's specialist level school psychologist. This exam must be taken after students are accepted to candidacy. It is recommended to be taken during the first semester of internship placement. For graduation, students must obtain a score not less than ½ standard deviation below the NCSP criterion (pass) score. In addition to the national examination, each student must also submit a portfolio documenting competencies in each of the NASP domains of practice. The portfolio is submitted a few months prior to graduation. Additional information regarding this requirement is provided in the Student Handbook.

Required Courses

The course work is designed to provide preparation in each of the NASP Domains of Practice. Any course substitutions or use of transfer credits must be approved by the School Psychology Plan faculty.

Recommended Course Sequence:

YEAR 1

Summer

PSYC 5031 Human Growth and Development

Semester 1 (Fall)

*PSYC 5111 Orientation to School Psychology

PSYC 5131 Psychopathology of Childhood

PSYC 5235 Learning Principles

PSYC 6036 Research Design and Statistics I

Semester 2 (Spring)

PSYC 6032 Intellectual Assessment

PSYC 6037 Research Design and Statistics II

PSYC 6238 Applied Behavior Analysis

YEAR 2

Summer

PSYC 5233 Introduction to Family Therapy

PSYC 6134 Biological Basis of Behavior

Semester 3 (Fall)

PSYC 6039 Practicum in School Psychology

PSYC 6111 Student Diversity in Learning

PSYC 6121 Ethics/Law in School Psyc.

PSYC 6133 Personality Assessment of the Child

PSYC 6139 Intervention I: Academic and Cognitive Skills

Semester 4 (Spring)

PSYC 6034 Consultation in School Psyc

PSYC 6039 Practicum in School Psychology

PSYC 6230 Intervention II: Social and Behavioral Skills

PSYC 6231 Intervention III: Affective and Adaptive Skills

YEAR 3

Summer

PSYC 6132 Seminar in Professional School Psychology

PSYC 6332 Intervention IV: Program Design/Evaluation for Special Populations

Semester 5 (Fall)

PSYC 6666 Clinical Internship

Semester 6 (Spring)

PSYC 6666 Clinical Internship

* Pending Coordinating Board approval

PSYCHOLOGY (MASTER OF ARTS)

For programs in Clinical Psychology, Family Therapy, and School Psychology please look under Professional Psychology. For programs in Industrial/Organizational Psychology please look under Behavioral Sciences - General.

This Master of Arts in Psychology requires 36 hours with a thesis or project as the master's option or 42 hours with the internship as the master's option. Any undergraduate prerequisite hours not completed before enrollment are additional.

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PREREQUISITES

1. Introductory psychology or equivalent (three hours)
2. Four courses from the following nine areas in psychology with a grade of "B-" or better in each course. Grades of "C+" or below are not acceptable. At least two of the four courses must have been taken at the upper-level.
 - a. Systems and theories of psychology
 - b. Theories of personality
 - c. Child psychology (developmental psychology)
 - d. Social psychology
 - e. Abnormal psychology
 - f. Learning
 - g. Brain and behavior (biopsychology; physiological psychology)
 - h. Cognitive psychology
 - i. Psychological Thinking
3. Course in statistics. Students whose undergraduate work does not include three hours in statistics must take PSYC 4730 Behavioral Statistics or PSYC 4631 and PSYC 4632 Research Design and Statistical Methods I and II.
4. Students are expected to demonstrate graduate level writing ability. Those students whose writing is deemed unacceptable will be advised to take remedial courses.

FOUNDATION REQUIREMENTS: 18 HOURS

PSYC 6036/6037 Research Design and Statistics I and II 6 hours

Students must take at least four of the following five core Psychology classes:

PSYC 5031	Human Growth and Development	3 hours
PSYC 5235	Learning Principles	3 hours
PSYC 5532	Advanced Social Psychology	3 hours
PSYC 6832	Advanced Cognitive Psychology	3 hours
	Prerequisite: PSYC 4832: Cognitive Psychology	

PSYC 6134 Biological Basis of Behavior 3 hours

¹(If an equivalent undergraduate course was taken, substitute PSYC 5432 Psychoactive Drugs)

MASTER'S OPTIONS

Students select one of the options listed below:

PSYC 6739	Graduate Internship ^{1,2,3}	6 hours
PSYC 6839	Master's Project ¹	6 hours
PSYC 6939	Master's Thesis ¹	6 hours

¹These three options require considerable advance planning. Students may have to meet additional criteria before being permitted to begin one of these options. Students wanting one of these options must make arrangements with a faculty adviser at least one semester in advance. The university reserves the right to deny admittance to or remove a specific student from a specific internship. Master's projects, theses and internships require continuous registration during each fall and spring semester until completion, for a minimum of six hours. If students do not maintain

continuous registration in the master's project, thesis or internship, previously accumulated master's option credits will not count toward the master's degree.

²Completion of PSYC 5135 Professional Issues in Human Services is a prerequisite for all PSYC internships.

³Completion of PSYC 5134 Interviewing and Assessment is a prerequisite for an internship in a human services setting, unless an equivalent course has been taken previously. If PSYC 5134 is not needed, the student must take an extra elective to complete the 42 required hours.

AREA OF SPECIALIZATION

Twelve additional hours (18 additional hours for students doing the internship option) are selected from psychology and/or other relevant disciplines with the approval of the academic adviser and the HSH Advising Coordinator. These hours are designed to provide a specific disciplinary focus within psychology. These courses may focus on biopsychology, life-span development, human performance or some other area of choice.

GRADES

Only grades of "B-" or better will count toward the Master of Arts in Psychology. Grades of "C+" or below are not acceptable.

LIMITATIONS

No more than six hours of video courses can be counted toward this degree. No more than nine hours of a combination of Independent Study, Behavioral Neuroscience Research or Behavioral Pharmacology Research courses can be counted toward this degree.

APPLIED COGNITIVE PSYCHOLOGY SUB-PLAN

Applied Psychology is the application of principles and techniques of Psychology to a real world problem. In Applied Cognitive Psychology, (ACP), principles and methods associated with Cognitive Psychology are applied to the human-machine interface to improve the usability and effectiveness of the interface. The Applied Cognitive Psychology Sub-Plan is designed to focus on Human Factors and thus provides students with a well-rounded foundation in psychology, the user centered design process and the methods used to evaluate human-machine interfaces. Students will obtain basic competency in perception, cognition and information processing systems as well as how to apply this knowledge to the design of the human-machine interface.

Practicum and research experiences will be provided in laboratory and industrial settings. All students will complete a major research project prior to graduation. The sub-plan includes a course sequence that prepares the student to take the exam to become a Certified Professional Ergonomist (CPE) or Certified Human Factors Professional (CHFP).

Research and Statistics (6 hours)

PSYC 6036/6037

Research Design and Statistics I and II

6 hours

Core Psychology Courses (Select 3 of 5) (9 hours)

PSYC 5031	Human Growth and Development
PSYC 5235	Learning Principles
PSYC 5332	Organizational Psychology
PSYC 5532	Advanced Social Psychology
PSYC 6134	Biological Basis of Behavior

Required Applied Cognitive Psychology Courses (21 hours)

PSYC 6832	Advanced Cognitive Psychology
PSYC 6431	User Centered Design
PSYC 6434	Human Factors Engineering
*PSYC 6435	Human Factors Methods and Analysis
PSYC 6x1x	Human Factors and Ergonomics Seminar ¹
PSYC 6x3x	Practicum in Human Factors ²

Applied Cognitive Psychology Elective (Select 1) (3 hours)

CSCI 3131	Programming with Visual Basic
DMST 5039	Web Design
DMST 5232	Technical Foundations of Digital Media
INDH 4231	Ergonomics, Human Factors and Workplace Design
INDH 5335	Ergonomic Methods and Analysis Techniques
PSYC 5339	Training and Development

Master's Option (6 hours)

PSYC 6739	Graduate Internship ³ or
PSYC 6939	Master's Thesis ³

¹ Must be taken every Fall and Spring semester while enrolled in the Sub-Plan for a minimum of 3 semesters.

² Must be taken for two semesters.

³ Pre-requisite: PSYC 6x3x Practicum in Human Computer Interaction

*Pending Coordinating Board approval

HUMAN FACTORS/ERGONOMICS CERTIFICATE

Students enrolled in the Human Factors/Ergonomics Certificate Program complete the following courses:

PSYC 6036/6037	Research Design and Statistics I and II	6 hours
PSYC 6434	Human Factors Engineering	3 hours
PSYC 6431	User Centered Design	3 hours
PSYC 6435	Human Factors Methods and Analysis	3 hours
INDH 5335	Ergonomics Methods and Analysis Techniques	3 hours

*Pending Coordinating Board approval

FOR THE MASTER OF ARTS IN SCHOOL PSYCHOLOGY SEE PROFESSIONAL PSYCHOLOGY PLANS

SOCIOLOGY (MASTER OF ARTS)

GENERAL REQUIREMENTS

1. Thesis Option (total hours = 30)

SOCI 5131	Contemporary Sociological Theory	3 hours
SOCI 6730	Graduate Statistics	3 hours

SOCI 6731	Graduate Research Methods	3 hours
SOCI Core	Three Core Classes listed below	9 hours
SOCI Electives	Two Elective classes	6 hours
SOCI 6939	Master's Thesis Research ¹	6 hours

¹The thesis is a 35-40 page paper that could potentially be publishable in a Sociology scholarly journal (it must be in American Sociological Association format, use real data, contain a literature review and test at least one hypothesis derived from a Sociological theory). This option requires a thesis committee, a proposal, a completed thesis approved by the student's thesis committee and the successful defense with a thesis committee consisting of at least two sociologists.

2. Project Option (total hours = 36)

SOCI 5131	Contemporary Sociological Theory	3 hours
SOCI 6730	Graduate Statistics	3 hours
SOCI 6731	Graduate Research Methods	3 hours
SOCI Core	Three Core Classes listed below	9 hours
SOCI Electives	Four Elective classes	12 hours
SOCI 6939	Master's Project Research	6 hours

3. Internship Option (total hours = 36)

SOCI 5131	Contemporary Sociological Theory	3 hours
SOCI 6730	Graduate Statistics	3 hours
SOCI 6731	Graduate Research Methods	3 hours
SOCI Core	Three Core Classes listed below	9 hours
SOCI Electives	Four Elective classes	12 hours
SOCI 6939	Graduate Internship	6 hours

CORE SOCIOLOGY CLASSES

Students must take a minimum of nine hours selected from the following:

SOCI 5136	Women and the Law
SOCI 5137	Race and the Law
SOCI 5236	Religion and Global Change
SOCI 5331	Advanced Criminology
SOCI 5333	Minorities and Majorities
SOCI 5334	Social Stratification
SOCI 5336	Law and Society
SOCI 5337	Complex Organizations
SOCI 5433	Social Conflict and Mediation
SOCI 5532	Advanced Social Psychology
SOCI 5537	Urban Problems

Graduate Sociology students are also encouraged to structure their plans of study to reflect concentrations within the discipline. The following concentrations have been developed by the Sociology faculty to help student better plan for their career and/or doctoral educational goals.

1. Graduate Concentration in Diversity (must successfully complete all 3):

SOCI 5333	Minorities and Majorities
SOCI 5236	Religion and Global Change
SOCI 5334	Social Stratification

2. Graduate Concentration in Work and Occupations (must successfully complete all 3):

SOCI 5337	Complex Organizations
SOCI 5433	Social Conflict and Mediation

SOCI 5532 Advanced Social Psychology

3. Graduate Concentration in Urban Studies (must successfully complete all 3):

SOCI 5333 Minorities and Majorities

SOCI 5334 Social Stratification

SOCI 5537 Urban Problems

WOMEN'S STUDIES CERTIFICATE

Women's Studies is an interdisciplinary curriculum administered by the School of Human Sciences and Humanities. Women's Studies courses offer challenging new perspectives by exploring the special contributions of women and the impact of gender in a variety of academic disciplines.

Inquiries should be addressed to the convener of Women's Studies.

CERTIFICATE REQUIREMENTS

Nine hours of Women's Studies courses in any combination.

Highly recommended:

WMST 5732 Seminar in Women's Studies

MA in Humanities-Women's Studies Sub-Plan requirements:

Within Sub-Plan I, Texts, students select nine hours of graduate Women's Studies courses.

Highly recommended:

HUMN 5732 Seminar in Women's Studies

Other Women's Studies courses are identified in the course roster.

School of Human Sciences and Humanities Courses

ANTHROPOLOGY COURSES

ANTH 5032: Political Economy

Surveys current anthropological approaches to political and economic issues. (Crosslisted with CRCL 5032).

ANTH 5333: Cultures of Mexico and Central America

Surveys anthropological approaches to regions of Mexico, Central America and US-Mexico border. Students will be exposed to methods, theories and case studies and will gain skills required to conduct future research on this topic.

ANTH 5531: Families, Communities, and Globalization

Examines ideas of family, race, gender and relatedness in transnational and cross-cultural perspective. Draws on case studies from anthropology and other fields.

ANTH 5535: Cultures of Asia

Surveys anthropological approaches to Asian societies.

ANTH 5537: Cultures of Africa

Surveys anthropological approaches to African societies. (Crosslisted with CRCL 5537).

ANTH 5538: Cultures of The Middle East

Investigates the social and cultural diversity of peoples of the Middle East. Focuses on religion, economy and social structure.

ANTH 5931: Research Topics in Anthropology

Identified by specific title each time course is offered.

ANTH 5939: Independent Study in Anthropology

Independent study in anthropology. Permission of instructor required.

ARTS COURSES

ARTS 5037: Studies in Art History

Understanding and interpreting art history. Topics vary; may be repeated for credit with permission of instructor.

ARTS 5038: Crafts Design and History

Supervised projects in crafts history, design and techniques. May be repeated for credit.

ARTS 5231: Sculpture and Ceramic Studio

Supervised projects. May be repeated for credit.

Prerequisite: Permission of instructor.

ARTS 5331: Painting-Drawing-Printmaking

Supervised projects. May be repeated for credit.

Prerequisite: Permission of instructor.

ARTS 5631: Weaving Studio

Supervised projects in weaving with an emphasis on technique and design. May be repeated for credit.

ARTS 5919: Independent Study in Art

Independent study in Art. Permission of instructor required.

ARTS 5931: Research Topics in Art

Identified by specific title each time course is offered.

Prerequisite: Permission of instructor.

ARTS 5939: Independent Study in Art

Independent study in Art. Permission of instructor required.

COMMUNICATION COURSES

COMM 5031: Graphic Design

Professional approaches to graphic design. Presentations on design theory and practice. Professional design projects using Adobe Illustrator. Previous art, design and/or computer skills desirable.

COMM 5033: Advertising Design

Professional approaches to advertising design, theory and practice. Advertising design projects requiring photographic and computer skills. Previous art, design, computer and writing skills desirable.
Prerequisites: COMM 5031 and COMM 5037 or permission of instructor.

COMM 5035: Illustration

Advanced computer projects utilizing various techniques in visual messaging including professional practices in traditional design, computer skills and typography. Previous art, design, computer and writing skills desirable.
Prerequisites: COMM 5031 and COMM 5037, or permission of instructor.

COMM 5037: Digital Photography I

Advanced study of computer-photography. Projects in visual messaging using professional techniques and concepts. Previous computer skills desirable. Access to a digital SLR camera strongly recommended.

COMM 5931: Research Topics in Communication

Identified by specific title each time course is offered.

COMM 5939: Independent Study in Communication

Independent study in communications. May be repeated for credit.
Prerequisite: Permission of instructor.

CRIMINOLOGY COURSES

CRIM 5036: Criminological Research and Statistics I

Design, analysis and application of criminological research techniques and methods of measurement.

CRIM 5037: Criminological Research and Statistics II

Further examination of procedures involved in designing and analyzing criminological research.
Prerequisite: CRIM 5036.

CRIM 5133: Advanced Juvenile Delinquency

In depth analysis of delinquency theories, issues and policies in the U.S. and abroad. Topics include measurement and research, serious violent offenders, gangs and treatment by justice agencies. (Crosslisted with SOCI 5133).

CRIM 5135: The Death Penalty

History and development of capital punishment as a criminal justice remedy. Focuses on process and issues such as deterrence and discrimination, as related to the execution of violent offenders.

CRIM 5136: Race and Crime

Historical and social understanding of racial and ethnic groups in the United States as related to causation of crime and involvement in the criminal justice system.

CRIM 5137: Prevention and Control of Crime

Theories and application of crime control and prevention in society.

CRIM 5138: Homeland Security

Examination of events before, during and after September 11, 2001 in order to prepare for future manmade and natural catastrophic threats to homeland security.

CRIM 5139: Correctional Institutions

An advanced, theoretical examination of both prisons and jails as "total institutions." Includes history of prisons, various philosophies of incarceration, organization structure, institutional subcultures and problems encountered in the classification and supervision of incarcerated offenders.

CRIM 5331: Advanced Criminology

Examination of major theories of crime causation. Emphasis on sociological theories of social structure, social process and social conflict along with classical and neoclassical perspectives. (Crosslisted with SOCI 5331).

CRIM 5332: White-Collar Crime

Study of financial, physical and social costs of white-collar crime. Examines both perpetrators and victims. Special attention paid to computer crime. (Crosslisted with SOCI 5332).

CRIM 5333: Computer Crime

Consideration of common forms of computer crime, including financial theft/embezzlement, malicious hacking, international industrial espionage and dissemination of pernicious viruses and worms.

CRIM 5335: Criminal Justice and The Mass Media

Examines collision between two powerful sets of social institutions-the criminal justice system and the mass media. (Crosslisted with SOCI 5335).

CRIM 5336: Law and Society

This course surveys a number of problematic issues in contemporary American society from the perspectives of sociological, philosophical and legal theories. The course examines the controversial ways U.S. political system seeks to reconcile individual liberties with the collective obligations of the social contract. (Crosslisted with SOCI 5336).

CRIM 5337: Organized Crime

Advanced, theoretical examination of organized criminal groups, such as the "mafia" and other criminal groups worldwide. Applies historical, economic, political and legal perspectives. Emphasizes victimless crime, labor rackets and extortion. Covers special governmental commissions and legislative reforms.

CRIM 5338: Criminal Law

Study of structure and rationale for criminal law; focus on criminal liability, criminal defenses and types of offenses. (Crosslisted with CRIM 4334).

CRIM 5339: Comparative Criminology

Comparative study of criminology and institutions of social control in selected western and nonwestern countries.

CRIM 5431: Domestic Violence

Examines historical and contextual foundations, theories of causation and victimization, legal and enforcement responsibility, potential solutions to abuse and violence in domestic relationships.

CRIM 5432: Sociology of Law Enforcement

Critical analysis of issues related to roles and functions of American policing, including previous research on policing, previous experiments in police strategies and tactics and new trends in policing in 21st century.

CRIM 5433: Serial Murder

Examination of phenomenon of serial murder on national and international bases. Discussions include current and historical serial killers, why they kill, case studies and their investigation.

CRIM 5931: Research Topics in Criminology

Identified by a specific title each time course is offered.

CRIM 5939: Independent Study in Criminology

Prerequisite: Approval of advisor and independent study director.

CRIM 6734: Future of Crime and Justice

Behavioral perspective on possible and probable futures and their impact on American society and the Criminal Justice System. Emphasis on socioeconomic and technological factors and trends currently shaping crime in America.

CRIM 6735: Seminar in Criminology

Fulfills course work option requirement in graduate criminology. Students apply the substantive knowledge and research skills they have acquired to topic selected by instructor.

Prerequisites: CRIM 5036; CRIM 5037; 24 hours of graduate course work.

CRIM 6739: Graduate Internship

Minimum of two days a week in approved internship setting. Written report required. Arrangements for internship should be completed by beginning of prior semester.

Prerequisite: 24 hours of graduate course work and approval of internship coordinator.

CRIM 6839: Master's Project Research

Approval of advisor and project director required.

CRIM 6939: Master's Thesis Research

Approval of advisor and thesis director required.

CROSS-CULTURAL STUDIES COURSES

*Pending Coordinating Board approval

CRCL 5031: Theories of Cultural Diversity

Theoretical approaches to cultural interpretation and methods of cultural comparison. Emphasis on cultural diversity as expressed in formations of nationalism, ethnicity, race, class, family and gender; and roots of racism and tolerance.

CRCL 5032: Political Economy

Surveys current anthropological approaches to political and economic issues. (Crosslisted with ANTH 5032).

CRCL 5033: Religion and Community

Examination of the nature of religious experience from a comparative perspective. Basic belief, ritual and institutional structures of major world faiths with attention to the operation of religious communities in multicultural settings.

CRCL 5035: Human Rights and Social Justice

Examines methods, theories, debates and case studies related to human rights in the United States and globally. Students will gain skills required to conduct future research on the topic.

CRCL 5037: Theories and Practices of Mediation

Application of mediation techniques to the needs of community groups, churches, businesses and non-governmental agencies.

CRCL 5039: Environment and Society

Examination of diverse conceptions of and values attached to, the natural world History of human-induced changes to the environment. Analysis of global movements. Exploration of the changing role of civil society in solving environmental problems.

CRCL 5131: Gender, Culture and Power

Exploration of the many ways gender is constructed cross-culturally. Examination of how different societies conceptualize each gender and assign them social, economic and political significance. Analysis of relationship between gender and class, race, ethnicity and nationality.

***CRCL 5132: Women of Color**

Examination of the experiences of women of color in the United States and globally using race, class, and sexuality as analytical tools to explore these experiences.

CRCL 5231: Studies in European History

Critical examination of major themes in the European past including historiographical analysis. Topics vary; may be repeated for credit with permission of instructor.

CRCL 5232: Cultures of Mexico and Central America

Surveys anthropological approaches to societies of Mexico, Central America and the U.S.-Mexico border. Students will be exposed to methods, theories and cases studies and will gain skills required to conduct future research on the topic.

CRCL 5238: Negotiating Across Cultures

Examines challenges facing international organizations and multinational corporations in negotiating across cultures. Explores decision-making and its relation to beliefs and values of people of diverse cultures and political systems.

CRCL 5239: Egypt in Transition

Examines methods, theories and case studies of Egypt and the Middle East. Students will conduct research on a specific topic.

CRCL 5330: Cultural Study Abroad

Students will be exposed to theories, methods and case studies of a foreign nation; students will conduct research on a specific topic. Topics vary; course may be repeated with permission of instructor.

CRCL 5332: Diversity in Urban America

Examines classical theories of urban life and urban development; explores urban issues such as ethnic diversity, transportation and policy.

CRCL 5333: Minorities and Majorities

The pattern of interaction among race, ethnic and gender groups; personality and structural effects of prejudice and discrimination. Includes both U.S. and cross-cultural perspectives.

CRCL 5334: World Futures

Survey of recent world models and forecasts, with implications for policy and administration.

CRCL 5338: Cross-Cultural Communications

Examines role of cross-cultural communication in economic, political and social transactions. Examines impact of cultural beliefs, values and behavior patterns on communication with members of different cultures and identifies factors that facilitate cross-cultural communications.

CRCL 5434: Studies in Latin American History

Critical examination of major issues and themes in Latin American history. Topics vary; may be repeated for credit.

CRCL 5531: Cross-Cultural Perspectives on the Family

Examines ideas of family, race, gender and relatedness in transnational and cross-cultural perspective. Draws on case studies from anthropology and other fields.

***CRCL 5534: Native Americans**

Examines social and cultural diversity of indigenous peoples of North America from an anthropological and historical perspective.

CRCL 5535: Cultures of Asia

Anthropological approaches to Asian societies.

CRCL 5537: Cultures of Africa

Investigates ethnicity, social organization, politics and religion of Africa. (Crosslisted with ANTH 5537).

CRCL 5538: Cultures of The Middle East

Investigates the social and cultural diversity of peoples of the Middle East. Focuses on religion, economy and social structure.

CRCL 5631: Cross-Cultural Methods

Examines methods used in a variety of disciplines to study difference based on culture, race, ethnicity, gender, class and nationality.

CRCL 5731: Seminar in American Multicultural Literature

Survey of minority or immigrant literature; intensive study of a particular ethnic group's texts and authors; a trans-ethnic theme or topic; a major author or authors. Topics vary. May be repeated for credit with permission of instructor. (Crosslisted with LITR 5731).

CRCL 5732: U.S. Social movements

Analysis and comparison of ideology, composition and social role of such reform movements as abolitionism, civil rights, feminism, labor unions, populism, progressivism and socialism. Topics vary; may be repeated for credit with permission of instructor.

CRCL 5734: Cross-Cultural Texts in Dialogue

Texts representing First-World colonialism and imperialism (e.g., Heart of Darkness, Passage to India, Robinson Crusoe) are read in dialogue with corresponding texts from perspective of the colonized (e.g., Things Fall Apart, Midnight's Children, Lucy); includes postcolonial poetry and theory.

CRCL 5735: Literature of The Pacific Rim

Selected Pacific Rim readings from literature of Japan, China, Russia, Hawaii, and South Pacific. Focus on representative and contemporary works of Patrick White, Yukio Mishima, Alexander Solzhenisyn, Eileen Chang, Li Ang, Mark Twain, and James Michener.

CRCL 5931: Research Topics in Cross-Cultural Studies

Identified by specific title each time course is offered.

CRCL 5939: Independent Study in Cross-Cultural Studies

Independent Study in Cross-Cultural Studies.

Prerequisite: Approval of independent study director required.

CRCL 6735: Research Seminar in Cross-Cultural Studies

An advanced research seminar in Cross-Cultural Studies. Explores research methods and techniques of cross-cultural studies. Students will write major research paper. Topic will vary by semester.

Prerequisite: 24 hours of graduate course work.

CRCL 6739: Graduate Internship

Minimum of two days a week in an approved internship setting. Written report required. Arrangements for internships should be completed by the beginning of the prior semester.

Prerequisite: 24 hours of graduate-level course work and approval of internship coordinator.

CRCL 6839: Master's Project Research

Approval of advisor and project director required.

CRCL 6939: Master's Thesis Research

Approval of advisor and thesis director required.

DIGITAL MEDIA STUDIES COURSES

*Pending Coordinating Board approval

DMST 5031: Graphic Design

Professional approaches to graphic design. Presentations on design theory and practice. Professional design projects using Adobe Illustrator. Previous art, design and/or computer skills desirable.

DMST 5033: Advertising Design

Professional approaches to advertising design, theory and practice. Advertising design projects requiring photographic and computer skills. Previous art, design, computer and writing skills desirable. Prerequisites: DMST 5031 or permission of instructor.

DMST 5034: Global Issues in Film

Survey of film, development and communication theories as they relate to global issues in digital society. Use of film, Internet and academic readings to facilitate focus on worldwide cultural differences.

DMST 5036: Digital Video

Prerequisite: DMST 5534 Video Editing and Production.

Develops methods and processes of video production using non-linear editing equipment. Emphasis on theory and practice. Students develop conceptual video through experimentation and artistic presentation. Students should have working knowledge of video cameras and editing skills. (INST 5635 may be taken as an alternative).

DMST 5038: Advanced Digital Photography

Exploration of photography and photographic processes in the digital realm. Emphasis on theory and practice of larger scale studio art and conceptual projects. Students should have access to a digital SLR camera.

DMST 5039: Web Design

Prerequisite: COMM 4434: Web Design or equivalent experience with instructor approval.

Students study function of, critically evaluate and create Web sites. Students create and publish client-based projects. Topics include HTML, XHTML and CSS, and Javascript. [INST 5635 may be taken as an alternative.]

DMST 5132: 3D Modeling

3D modeling techniques for animation, images and 3D computer sculptures. Covers surface and texture mapping and lighting. Students present research on topics related to 3D technologies.

DMST 5139: Advanced Web Design

Prerequisite: DMST 5039 or equivalent experience with instructor approval. Advanced techniques in Web page construction. [INST 5735 may be taken as an alternative.]

DMST 5230: Critical Approaches to Digital Media

Exploration of personal, cultural, social, economic, political and ethical impacts of information technology, using critical/cultural studies approaches.

DMST 5231: Advanced Digital Media Design

Concept-based design course taken the semester before the final project in which students use digital tools from their major areas of study.

DMST 5232: Technical Foundations of Digital Media

Delivery of content through digital media. Explores concepts of digital systems, computer components, networking and delivery techniques.

DMST 5233: Digital Media Law and Ethics Seminar

Overview of legal and ethical issues pertinent to the professional communicator, regarding issues such as information access, intellectual property, privacy and defamation. Emphasis on regulation of new technology.

DMST 5234: Public Relations Writing

Writing for corporate, nonprofit and government organizations, including press releases, public service announcements, speeches, newsletters, grants, etc. Also covers interviewing, public relations research techniques, layout and production.

DMST 5235: Animation

Fundamental principles of animation, both computer and traditional. Emphasis on 3D computer animation, editing and compositing. Storyboarding and animation project planning also covered. Students complete animated short and present research on 3D technologies, film-making or storytelling.

Prerequisite: DMST 5132 3D Modeling.

DMST 5236: Digital Storytelling

Prerequisite: DMST 5534 Video Editing and Production of DMST 5039: Web Design.

Course covers basic structure of narrative and various forms of digital media story telling. Students will produce versions of their own narratives using Flash, video production, Web programming and/or audio programming.

DMST 5332: Compositing

Trends and techniques in digital compositing for film and video with emphasis on combining 2D and video imagery with 3D animation. Coverage of matte creation and use, keying, transitions, timing, titling and special effects as well as procedures for rendering 3D elements in layers for compositing.

***DMST 5436: Flash Animation**

Instruction in 2D animation, Flash Timeline and Objects, Action Script, user interactivity and publishing files. Students study function of and evaluate Web sites done in Flash to serve as communication vehicles. Prerequisites: DMST 5031 and COMM 4434 or equivalent experience with instructor approval.

***DMST 5534: Video Editing and Production**

Examines technical steps to make and edit video. Includes shooting, camera control and editing. Students learn equipment configuration, capturing, basic editing techniques, lighting, and converting to a digital medium.

***DMST 5535: Advanced Video Production and Editing**

Prerequisite: DMST 5534: Video Editing and Production.

This course will cover advanced editing tools, such as Final Cut Pro timeline, Garageband, Live Type, and DVD Pro.

DMST 5538: Desktop Publishing

Covers page design and production processes. Projects involve research, concept development and creation of written and illustrated content for publications.

***DMST 5831: Project Management**

Application of knowledge, skills, tools, and techniques to activities related to project, such as creation of unique product, service or result. Course exposes students to project management practices and tools and imparts ability to choose between management styles to complete projects and initiatives.

DMST 5931: Research Topics in Digital Media Studies

Identified by specific title each time course is offered.

DMST 5939: Independent Study in Digital Media Studies

Independent study in Digital Media Studies.

Prerequisite: Approval of independent study director.

DMST 6739: Graduate Internship

Development of digital media under supervision of selected professor and on-site organizational supervisor. Five hundred hours on-site required.

DMST 6839: Master's Project Research

Completion of a project sufficient to represent a capstone activity that integrates knowledge and skills developed in the program.

GEOGRAPHY COURSES

GEOG 5231: Approaches to Geographic Education

Geographic content knowledge is linked to teaching strategies and curriculum development. Content focus will address approaches designed to foster geographic knowledge, study skills and critical thinking.

GEOG 5931: Research Topics in Geography

Identified by specific title each time course is offered.

GEOG 5939: Independent Studies in Geography

Prerequisites: Approval of instructor and Associate Dean.

HEALTH COURSES

*Pending Coordinating Board approval

HLTH 5131: Applied Exercise Physiology

Neuromuscular function: lecture, discussion and lab experience dealing with the impact of acute and chronic exercise on the neuromuscular system. Emphasis upon responses to various strength training procedures.

HLTH 5132: Applied Exercise Physiology

Cardiopulmonary function: Attention is focused on cardiopulmonary adaptations to acute exercise as well as adaptations associated with regular exercise training. Emphasis upon responses to aerobic training procedures.

HLTH 5133: Sports Nutrition

Prerequisite: HLTH 4033.

Study of the effect of nutrition on sports performances and personal health.

HLTH 5231: Techniques in Human Performance

To provide an in-depth, structured, practical experience in a formalized program dealing with human performance.

HLTH 5332: Health Risk Reduction

Identification and control of risk factors associated with human wellness. Emphasis on cardiovascular disease and the development of a healthy lifestyle.

HLTH 5333: Organizational Wellness

The purposes, methods and objectives of wellness programs in the public and private sector.

HLTH 5334: Women's Health Issues

Current issues and research in women's health and fitness using a life-span perspective; topics may include eating disorders, reproductive health and doctor-patient communication. "Women's Studies Course."

HLTH 5335: Exercise Principles for Special Populations

Exploration of relationships among special populations, their respective pathologies and how physical activity may influence their physical function.

HLTH 5931: Research Topics in Health Education

Identified by specific title each time course is offered.

HLTH 5939: Independent Study in Health

Independent study in health.

Prerequisite: Approval of independent study director.

HLTH 6032: Advanced Seminar in Sports Medicine

Discussion of current research issues in cardiopulmonary, metabolic, environmental and biomechanical factors related to sports medicine. (Crosslisted with HLTH 4035).

HLTH 6033: Laboratory Techniques and Research Design

Concepts and methodology related to performing exercise science research. Examination of the various statistical methods and testing procedures utilized in exercise science research.

HLTH 6034: Seminar in Exercise, Nutrition and Weight Control

Study of the problem of obesity and malnourishment. Current research on influence of genetics, eating behavior and activity patterns upon nutrition and weight control.

HLTH 6035: Statistics in Exercise Science

Application of statistical processes commonly used in exercise science research.

HLTH 6037: Advanced Seminar in Peak Performance

How to improve performance by enhancing strength, flexibility, speed, power, agility and coordination. Varying content. May be repeated for credit with permission of instructor.

***HLTH 6039: Research in Human Performance**

Provides practical experience in research methodologies related to exercise and sports science. Students will participate in ongoing research projects in the Human Performance Laboratory. Including data collection, statistical analysis, and presentation. Topics vary; may be repeated for credit.

HLTH 6739: Graduate Internship

Prerequisite: 24 hours of graduate-level course work and approval of internship coordinator.

Minimum of two days a week in an approved setting. Written report required. Arrangements for internship should be completed by preregistration.

HLTH 6839: Master's Project Research

Approval of advisor and project director.

HLTH 6939: Master's Thesis Research

Approval of advisor and thesis director.

HISTORY COURSES

HIST 5031: Research and Methods Seminar

Research methods and techniques including historiography, bibliography and introduction to primary and secondary sources in political, social, economic, quantitative and public history.

HIST 5131: Studies in Early American History, 1607-1815

Critical examination of major issues and themes in the history of the British North American colonies that became the United States. Topics vary; may be repeated for credit with the permission of instructor.

HIST 5132: The Civil War and Reconstruction

American society and politics between the 1850s and the 1870s, emphasizing the end of slavery and the emergence of industrial America.

HIST 5133: Antebellum America, 1815-1865

Examines specific problems and themes in nineteenth century American culture such as changes in family structure, race relations, the status of women and psychology of popular culture. Topics vary; may be repeated for credit with permission of instructor.

HIST 5135: American Frontiers

Critical examination of idea of West as historical place, frontier process and site of national myth from early contact between European and Native American peoples onward. Evaluations of parallels to modern frontier of space exploration.

HIST 5138: Local History Seminar

History of local and nearby areas including Harris, Galveston, Fort Bend and Brazoria counties; heavy emphasis on student research into local and regional people, events and institutions. Topics vary; may be repeated for credit with permission of instructor.

HIST 5232: U.S. Social Movements

Analysis and comparison of ideology, composition and social role of such reform movements as abolitionism, civil rights, feminism, labor unions, populism, progressivism and socialism. Topics vary; may be repeated for credit with permission of instructor.

HIST 5233: U.S., 1877-1919

Topics in transformation of U.S. wrought by immigration and industrialization between end of Reconstruction and demobilization after World War I. Topics vary; may be repeated for credit with permission of instructor.

HIST 5234: U.S., 1919-1945

Topics in modernization of life in U.S. and crises of the Great Depression and World War II. Topics vary; may be repeated for credit with permission of instructor.

HIST 5235: U.S. Since 1945

Topics in contemporary U.S. history and exploration of problems involved in analyzing the very recent past. Topics vary; may be repeated for credit with permission of instructor.

HIST 5236: Studies in History and Film

Such topics as the history of film genres or filmmakers; the use of film as historical evidence; the correlation of films to history. Topics vary; may be repeated for credit with permission of instructor.

HIST 5237: Nazi Cinema and The Third Reich

Exploration of Third Reich through film and cultural artifact. Film was a medium which preserved old notions of identity, while offering new instruments of consensus building. Studies themes such as fascism, gender, violence, national identity, anti-Semitism and mass culture.

HIST 5238: Weimar Cinema and The Great War

Study of selected German films for 1918 to 1931 as contributions to debates about rationality, gender, violence, national identity and the human condition shaped by experiences of First World War. Across disciplinary seminar that draws equally on film theory and history, psychoanalysis, philosophy and cultural criticism.

HIST 5239: The Vietnam War in Film

Examines the Vietnam War in US film and cultural artifact. Traces intersection of fact and fiction, evident in decades following Vietnam War. Explores notions of mourning and memory and how they relate to post-war experience.

HIST 5430: Studies in Women's History

Critical examination of major themes and issues in the history of women. Topics may vary; may be repeated for credit with the permission of instructor. "Women's Studies Course."

HIST 5431: Biography in European History

Examination of issues involved in researching and writing biographies of individuals from the European past. Students will read important biographies and write a partial biography.

HIST 5432: Studies in European History

Critical examination of major themes in the European past including historiographical analysis. Topics vary; may be repeated for credit with permission of instructor.

HIST 5433: Reformation Europe

A seminar which examines the Reformation movement in sixteenth century Europe.

HIST 5434: Studies in Latin American History

Critical examination of major issues and themes in Latin American history. Topics vary; may be repeated for credit with permission of instructor.

HIST 5931: Research Topics in History

Identified by specific title each time course is offered.

HIST 5939: Independent Study in History

Independent study in history.

Prerequisite: Approval of independent study director.

HIST 6839: Master's Project Research

Approval of advisor and project director required.

HIST 6939: Master's Thesis Research

Approval of advisor and thesis director required.

HUMANITIES COURSES

*Pending Coordinating Board approval

HUMN 5031: Texts and Images I

Touchstones of literature and art from ancient times through the Middle Ages. Artists and works such as: Epic of Gilgamesh, Homer, Plato, Virgil, the Bible; Mesopotamian art, classical Greek sculpture, the Parthenon; Dante, Petrarch.

HUMN 5033: Texts and Images II

Touchstones of literature and art from European Renaissance to contemporary times. Artists and works such as: Rousseau, Goethe, Wordsworth, Austen, Dostoevski, Borges, Proust, Joyce; Gainsborough, Hogarth, Goya, Manet, Cezanne, Picasso, Matisse, Rothko, Warhol.

HUMN 5035: Texts and Images III

Origins and interplay of non-western traditions; study of founding philosophical and religious traditions such as those of Asia, Africa, the Middle East and Native America.

HUMN 5037: Writing for The Technical Professions

Theory and practice of creating technical documents such as instructions, procedures, process analyses, and operating manuals. Attention to the importance of form, structure, and design for successful presentation.

HUMN 5131: Writing for The Business Professions

Advanced seminar in rhetorical analysis of professional communication. Emphasizes production of effective, efficient documents. Includes overview of changing workplace demands and strategies to manage communication projects.

HUMN 5133: Public Relations Writing

Writing for corporate, government and non-profit organizations. Press releases, public service announcements, speeches, newsletters, grants, etc. Interviewing, public relations research techniques, layout and production.

HUMN 5134: Editing

Students will learn the interpersonal and linguistic skills required for editing. They will learn to make documents highly readable by revising for content, mechanics, style, visual design, organization, illustrations, tables and documentation.

HUMN 5231: History of Exploration

Historical survey of humanity's exploration of the physical cosmos from prehistory to present day.

HUMN 5232: Our Future in Space

Review of the forces and factors shaping exploration of space including space technologies, economics, politics as well as values, visions and aspirations.

HUMN 5236: Studies in Film

In-depth analysis of film texts from a topical, generic, historical perspective. Emphasis on theoretical approaches and individual research. Topics vary. May be repeated for credit with permission of instructor.

***HUMN 5237: Studies in Art History**

Studies in art history, art theory and criticism. Topics vary. Course may be repeated for credit when content varies.

HUMN 5336: Philosophy in Religion

In-depth examination of issues in contemporary philosophy of religion. Emphasis on application of the logical tools of recent analytic philosophy to traditional questions relating to religion.

HUMN 5732: Seminar in Women's Studies

An advanced course in Women's Studies. Analysis and application of feminist theory across multiple disciplines.

Prerequisite: Any other Women's Studies course.

HUMN 5915: Cooperative Education

Educational paid work assignment by a student in the field of his or her career interest and course of study. Academic supervision and a report required.

HUMN 5931: Research Topics in Humanities

Identified by a specific title each time the course is offered.

HUMN 5939: Independent Study in Humanities

Independent study in Humanities. Approval of independent study director required.

HUMN 6739: Internship

Supervised internship in approved internship setting. Comprehensive written report required.

HUMN 6839: Master's Project Research

Approval of advisor and project director required.

HUMN 6939: Master's Thesis Research

Approval of advisor and thesis director required.

LITERATURE COURSES

LITR 5034: Workshop in Poetics

A comprehensive consideration of elements, mechanics and compositional strategies in English language poetry; bases for evaluation of both traditional and free verse forms; some attention to the development of the poetic tradition in English since the Middle Ages.

LITR 5036: Public Relations Writing

Writing for corporate, government and non-profit organizations. Press releases, public service announcements, speeches, newsletters, grants, etc. Interviewing, public relations research techniques, layout and productions.

LITR 5037: Writing for The Technical Professions

Theory and practice of creating technical documents such as instructions, procedures, process analyses, and operating manuals. Attention to the importance of form, structure, and design for successful presentation.

LITR 5038: Writing for The Business Professions

Advanced seminar in rhetorical analysis of professional communication. Emphasizes production of effective, efficient documents. Includes overview of changing workplace demands and strategies to manage communication projects.

LITR 5039: Editing

Students will learn the interpersonal skills required for editing. They will learn to make documents highly readable by revising for content, mechanics, style, visual design, organization, illustrations and documentations.

LITR 5130: Composition: Theory and Practice

Workshop in approaches to the teaching process; emphasis on composition theory, techniques for teaching description, narration, exposition, syntax and grammar.

LITR 5131: Studies in Composition and Rhetoric

Identified by specific title each time course is offered. May be repeated for credit with permission of instructor.

LITR 5132: Literary Theory

History of main theories of literature; selected concepts, technical constructs, schools of criticism and theory. Literature MA candidates must take during first year of graduate work.

LITR 5430: Creative Writing

Seminar in writing fiction, poetry, drama or creative nonfiction. May be repeated for credit when genre varies.

LITR 5431: American Literature

Seminar focused on a particular style, period or genre such as romanticism, realism, novel, poetry or drama. May be repeated for credit when content varies.

LITR 5432: Modern and Contemporary Literature

Seminar on works from the 20th and 21st centuries. May be repeated for credit when content varies.

LITR 5433: European Literature

Seminar on selected masterpieces of European literature or intensive study of a particular period, national or area literature. May be repeated for credit when content varies.

LITR 5434: British Literature--Pre-Restoration

Seminar focused on a particular author, period or genre, for instance Chaucer, Shakespeare or Spenser and Milton; women's writing. Course may be repeated for credit when content varies.

LITR 5435: British Literature-- Restoration to The Present

Seminar focused on a particular period or genre, for instance Restoration, 18th Century, Romantic or Victorian; the novel. May be repeated for credit when content varies.

LITR 5436: Major Authors

Intensive study of one or more authors influential in American, English or World literature. For instance: Euripides, Dante, Dickinson, George Eliot, Mishima or Walcott. May be repeated for credit when content varies.

LITR 5437: Literature and Culture

Seminar on interdisciplinary approaches to the study of texts within cultures. Course may be repeated for credit when content varies.

LITR 5438: Literature and Gender

Seminar on texts exploring gender issues. When emphasis is on women, a "Women's Studies Course." May be repeated for credit when content varies.

LITR 5439: Genre, Movement, or Style

Intensive study of a particular literary genre, movement or style such as Romanticism, Surrealism, the Gothic, the short story, the epic, confessional poetry, mysteries & detective stories or magic realism. May be repeated for credit when content varies.

LITR 5731: Multicultural Literature

Intensive study of a particular ethnic group's texts and authors, a trans-ethnic theme or topic; a survey of minority or immigrant literature, or colonialism. Course may be repeated for credit when content varies.

LITR 5739: Writing Center Practicum

Permission of instructor required. Prepares students to work in a one-on-one tutoring environment. Instruction in working with students as peer tutors; emphasis placed on learning about the composing process, strategies for invention, organization, development, revision and editing.

LITR 5831: World Literature

Seminar on selected world masterpieces, or intensive study of a particular nation's or region's literature and culture. Course may be repeated for credit when content varies.

LITR 5931: Research Topics in Literature

Identified by specific title each time course is offered.

LITR 5939: Independent Study in Literature

Independent study in Literature.
Prerequisite: Approval of independent study director.

LITR 6739: Graduate Internship

Supervised composition internship in approved setting. Comprehensive written report required.
Prerequisites: LITR 5130, LITR 5739 and one semester tutoring in the Writing Center.

LITR 6839: Master's Project Research

Approval of advisor and project director required.

LITR 6939: Master's Thesis Research

Approval of advisor and thesis director required.

PHILOSOPHY COURSES

PHIL 5431: Metaphysics

Inquiry into the thought of major thinkers on the nature of reality. The particular philosophers to be studied will vary from semester to semester.

PHIL 5433: Continental Philosophy

The study of major European philosophers of the modern period: Kant, Hegel, Nietzsche, Heidegger, Levinas and others.

PHIL 5931: Research Topics in Philosophy

Identified by specific title each time course is offered.

PHIL 5939: Independent Study in Philosophy

Independent study in Philosophy. Approval of independent study director required.

PSYCHOLOGY COURSES

*Pending Coordinating Board approval

PSYC 5031: Human Growth and Development

An overview of the developmental process throughout the life span. Focus on physical, cognitive, social and emotional components of development.

PSYC 5032: Family Psychology

Family process from a systemic perspective, with attention to family history, family life cycle, family health and dysfunction and family therapy.

PSYC 5035: Body Awareness

An experiential course which deals with the use of movement in therapy, the creative process using movement, non-verbal communications, body language, kinesthetic awareness and relaxation techniques. (Crosslisted with PSYC 4035).

***PSYC 5111: Orientation to School Psychology**

Prerequisite: Admission to School Psychology program.

Orients student to field of School Psychology. Addresses the history and development, paradigms for service delivery, and roles and functions of school psychology specialists. Students will accompany practicing LSSP to be directly exposed to roles and functions performed.

PSYC 5131: Psychopathology of Childhood

Survey of psychological disorders of childhood: diagnostic categories, assessment approaches, etiology, treatment and prognosis.

Prerequisite: PSYC 5031 or equivalent.

PSYC 5134: Interviewing and Assessment

Interviewing skills, goal setting, evaluating client progress, cultural sensitivity and ethics. Critical analysis of research literature.

PSYC 5135: Professional Issues in Human Services

Ethics, dual relationships, legal issues, confidentiality and other professional issues in the delivery of human services.

PSYC 5136: Multicultural Counseling

This course will familiarize students with culturally sensitive clinical practice with ethnic and other minority clients.

PSYC 5137: Trauma and Resilience

Theories and data concerning psychological response to traumatic events, resilience and recovery.

PSYC 5138: Mindfulness and Acceptance Therapies

This course will familiarize students with the theory and research supporting recent trends in behavior therapy, particularly the group of therapies interested in the constructs of mindfulness and acceptance.

PSYC 5231: Psychotherapy: Theory and Research

Forms of modern psychotherapy: psychoanalysis, humanistic, existential and behavioral.

Prerequisite: PSYC 3331; PSYC 4531; or equivalent; admission to clinical psychology, family therapy or school psychology program.

PSYC 5233: Introduction to Family Therapy

Introduction to theories and techniques of family and marital therapy; family process and lifestyle of the family.

PSYC 5234: Family Life Cycle

Overview of family process and modifications of family structures over the course of the family cycle (e.g. birth of the first child, adolescence and mid-life, children leaving home, etc).

Prerequisite: PSYC 5233 and admission to family therapy program.

PSYC 5235: Learning Principles

Basic principles of learning and their applications to human problems. Preparation for more advanced applications courses. An undergraduate learning or behavioral modification course is recommended as a preparation.

PSYC 5236: Family Assessment

An overview of assessment methods and instruments related to marital and family dysfunctions. Diagnosis of dysfunctional relationship patterns and of nervous and mental disorders.

Prerequisite: PSYC 4631, 4632 and PSYC 5233; admission to the Family Therapy Program.

PSYC 5237: Creativity

Historical and developmental approach to the importance of creative activity throughout the lifespan; a new approach to "creative necessity."

PSYC 5238: Negotiating Across Cultures

The challenges facing international organizations and multinational corporations in negotiating across cultures and generating decisions that take into account the beliefs and values of people of diverse cultures and political systems. (Crosslisted with SOCI 5238).

PSYC 5239: Group Psychotherapy

An introduction to the theory and practice of group psychotherapy including the study of group dynamics and group process. Students participate as group members and practice, under supervision, as group facilitators.

Prerequisites: Acceptance into clinical psychology, family therapy or school psychology program, PSYC 5731 and one therapy course.

PSYC 5331: Personnel Psychology

Overview of the issues and problems encountered by industrial/ organizational psychologists. Topics include job analysis, employee selection, performance appraisal, reliability and validity and employment law.

Prerequisites: PSYC 6036 and PSYC 6037.

PSYC 5332: Organizational Psychology

Overview of the issues and problems which organizational psychologists examine and the methods they employ. Topics include work motivation, job attitudes and organizational change.

PSYC 5333: Leadership in Organizations

Interdisciplinary examination of the determinants and consequences of effective and ineffective leadership in various types of organizations. (Crosslisted with SOCI 5339).

PSYC 5334: Change and Organizational Development

Introduces students to notion of change, both at individual and organizational levels. Surveys organizational change techniques and strategies. Students learn to work in groups and apply OD models to diagnose organizational problems and recommend interventions. (Crosslisted with SOCI 5430).

Prerequisites: PSYC 5332.

PSYC 5335: Career Counseling

Review of theories of career choice, accessing vocational information, theories and methods of career assessment and counseling techniques to facilitate career development across the lifespan.

Prerequisites: Admission to clinical psychology, family therapy or school psychology program.

PSYC 5336: Behavior in Complex Organizations

Study of how complex organizations are used as "social tools" to attain specific ends; exploration of issues of organizational structure, goals, technology, boundaries, resources and power. Focus on behavioral consequences of bureaucratic hierarchy.

PSYC 5337: Violence Against Women

Global perspectives of violence against women by men. Topics include sexual assault, battering, and harassment. Critical analysis of research literature.

PSYC 5338: Cross-Cultural Communications

Examines the role of cross-cultural communication in economic, political and social transactions. Examines the impact of cultural beliefs, values and behavior patterns on communication with members of different cultures and identifies the factors that facilitate cross-cultural communications.

PSYC 5339: Training and Development

Overview of training and development in organizations with particular emphasis on needs assessment, the learning environment and methods of program evaluation.

PSYC 5430: Human Services Management

Management principles, leadership, conflict resolution, budgeting and fund-raising in human services agencies and government and other community organizations. (Crosslisted with SOCI 5432).

PSYC 5431: Group and Organizational Behavior

Examination of theories of group and organizational behavior and their application to such settings as the criminal justice system and corporate organizations. Inter-group conflict and conflict resolution also considered.

PSYC 5432: Psychoactive Drugs

Legal and illegal drugs and their effect on mental state and behavior; how they work on the nervous system; why people use them; attempts to control them.

PSYC 5433: Substance Abuse: Causes and Treatments

Study of the factors that contribute to substance abuse and the various treatment modalities.

PSYC 5434: Introduction to Art Therapy Theory and Practice

History, theory and practice of art therapy; introduction to psychodynamic, humanist and behaviorist contributions.

PSYC 5436: Adult Development

Examination of common development patterns during the adult years. Emphasis on the interrelationships among work, family and leisure. (Crosslisted with SOCI 5436).

PSYC 5437: Aging

Study of current and future issues relating to the elderly from both a psychological and a societal perspective. (Crosslisted with SOCI 5437).

PSYC 5530: Group Dynamics and Teamwork

Emphasis on individual and group processes that contribute to group effectiveness. Students will work in groups to facilitate learning group dynamics concepts.
Prerequisites: PSYC 5330 and PSYC 5332.

PSYC 5532: Advanced Social Psychology

Theory, methodology and research findings pertinent to the individual in social context. (Crosslisted with SOCI 5532).

PSYC 5533: Psychology of Gender, Race & Sexuality

Sex roles, stereotyping, socialization of women and men, feminism, female sexuality, feminist therapy androgyny, situation of minority women. "Women Studies Course."

PSYC 5534: Minorities and Majorities

The pattern of interaction among race, ethnic and gender groups; personality and structural effects of prejudice and discrimination. Course includes both U.S. and cross-cultural perspectives. (Crosslisted with SOCI 5333).

PSYC 5535: Crosscultural Perspectives on The Family

Cross-cultural data are used to examine family systems including marriage, sex roles and child rearing. (Crosslisted with ANTH 4531, ANTH 5531 and SOCI 5535).

PSYC 5536: Occupational Health Psychology

Effects of work environment on employees' health and well-being. Emphasis on promotion of wellness and prevention of negative health-related consequences within organizational settings.

PSYC 5731: Basic Psychotherapy Skills

Counseling skills development and micro-skills laboratory experience.

Prerequisite: Courses in abnormal psychology and personality, or permission of instructor and admission to clinical psychology, school psychology, or family therapy program.

PSYC 5732: Seminar in Feminist Theory

An advanced course in Women's Studies. Analysis and application of feminist theory across multiple disciplines.

Prerequisite: Any other Women's Studies course.

PSYC 5734: Professional Practice, Law and Ethics

Issues in professional practice: career planning, licensing, Texas law, ethics, professional standards and responsibilities.

Prerequisite: Admission to clinical psychology, school psychology or family therapy program.

PSYC 5735: Anxiety and Stress Management

Examination of development and maintenance of stress and anxiety. Focus on anxiety disorders and stress conditions and methods of treatment including cognitive-behavioral therapy, progressive muscle relaxation, exercise, meditation, stress inoculation and pharmacological approaches.

PSYC 5736: Behavioral Medicine

Clinical applications of behavioral principles in the prevention and treatment of physical disease.

Prerequisite/corequisite: A course in behavior analysis or in learning principles.

PSYC 5737: Family Therapy Professional Ethics

Issues in the professional practice of family therapy: legal and professional standards and responsibilities, ethics, licensing, Texas law.

Prerequisite: Admission to the Family Therapy Program.

PSYC 5738: Family Therapy Practicum

Supervised clinical experience working with families including study of advanced family systems interventions and a focus on students' own families.

Prerequisite: PSYC 5233, PSYC 5731 and admission to the Family Therapy Program.

PSYC 5831: Gender and Cultural Perspectives in Therapy

Examination of women's "pathology" from social perspectives; feminist critique of traditional psychotherapy. Analysis of values and power issues in rape, incest, battering, obesity and assertiveness. "Women Studies Course."

PSYC 5832: Clinical Hypnosis

Induction techniques, tests for depth of trance and hypnotically induced phenomena including sensory changes, cognitive changes and suggestibility. Emphasis on clinical applications of phenomena.

Prerequisite: Admission to clinical psychology, school psychology or family therapy program.

PSYC 5833: Transpersonal Therapy

Introduction to the theory and practice of transpersonal therapy, including an overview of Eastern and Western approaches to psychotherapy.

PSYC 5911: Selected Topics in Psychology

Identified by specific title each time course is offered.

PSYC 5915: Cooperative Education

Educational paid work assignment by a student in the field of his or her career interest and course of study.

Academic supervision and a report required.

PSYC 5931: Research Topics in Psychology

Identified by specific title each time course is offered.

PSYC 5919, 5929, 5939: Independent Study in Psychology

Independent study of Psychology. May be taken for 1, 2, or 3 credit hours. Approval of advisor and independent study director.

PSYC 6011: Seminar in Advanced Statistics

Overview of advanced topics in statistics, e.g., multiple regression, meta-analysis, signal-detection analysis, etc.

Prerequisite: Concurrent enrollment in or previous graduate level statistics course.

PSYC 6031: Behavioral Assessment

Use of various behavioral assessment instruments, single subject research designs and ethics as applied to behavioral analysis.

Prerequisite: PSYC 5235 and PSYC 6238 or equivalent and admission to the Applied Behavior Analysis Sub-plan.

PSYC 6032: Intellectual Assessment

Review of theory underlying individual intelligence tests with emphasis on the CHC approach. Supervised practice in the administration, scoring and interpretation of the WAIS-III, WISC-IV and WJ-III.

Prerequisites: PSYC 6036, PSYC 6037 (concurrent enrollment accepted) and admission to clinical psychology or school psychology program.

PSYC 6033: Personality Assessment

An overview of the major psychological assessment techniques. Emphasis on structured interviews, personality inventories and projective techniques.

Prerequisites: PSYC 6531 or PSYC 5131 and admission to clinical psychology or school psychology, program.

PSYC 6034: Consultation in School Psychology

Models of consultation: consultation as a collaborative problem-solving process in the schools. Focus on primary and secondary intervention/prevention strategies. Supervised project involving consultation and requiring field experience.

Prerequisite: 36 hours of School Psychology Course work.

PSYC 6036: Research Design and Statistics I

Application and design of research methodologies for the behavioral sciences with special emphasis on experimental and quasi-experimental research designs.

Prerequisite: Undergraduate course in statistics.

PSYC 6037: Research Design and Statistics II

Application of statistical analysis to research results in the behavioral sciences with special emphasis on analyzing experimental and quasi-experimental research designs.

Prerequisite: PSYC 6036.

PSYC 6038: Clinical Practicum

Application of therapy skills with clients under supervision. Written report required.

Prerequisites: PSYC 5731 and PSYC 6531; admission to clinical psychology program; permission of the instructor; and twelve hours of graduate level course work including Basic Psychotherapy Skills, psychopathology and two therapy or testing courses.

PSYC 6039: School Psychology Practicum

Application of assessment skills with clients under supervision. Written reports required.

Prerequisites: 24 hours of School Psychology coursework which must include PSYC 5731, PSYC 6032 and PSYC 6133 can be concurrent enrollment; admission to the school psychology program area and permission of instructor.

PSYC 6111: Student Diversity in Learning

Course will familiarize students with potential effects of racial, cultural, ethnic, experiential, socioeconomic, gender-related and linguistic variables that impact development and learning. Development of cultural competency and necessary skills for providing services to diverse populations of children and families in educational setting.

PSYC 6121: Ethics and Law in School Psychology

Exploration of ethical and legal guidelines pertinent to delivery of psychological services in school setting. Planning and establishing a professional identity for career development; understanding legalities, ethics and standards of practice for school psychology; and working effectively with special populations and problems in school settings.

PSYC 6132: Seminar in Professional School Psychology

History and foundation of school psychology, roles and functions of the school psychologist, special education laws and professional issues related to the practice of school psychology.

Prerequisite: 42 hours of School Psychology coursework.

PSYC 6133: Personality Assessment of The Child

Supervised practice in the use of major personality tests for children and adolescents, including projective and objective/empirical measures.

Prerequisites: PSYC 5131 and PSYC 6032 or PSYC 6036, PSYC 6037 and admission to clinical psychology or school psychology program.

PSYC 6134: Biological Basis of Behavior

The role of the nervous system in perception, movement, drives, emotions, higher mental processes and mental illness.

PSYC 6136: Marital and Family Interaction

Analysis of marital and family interaction process through evaluation of communication patterns in a variety of families.

Prerequisite: PSYC 5233 and admission to clinical psychology, school psychology, or family therapy program.

PSYC 6137: Family Research

Overview of research methods with a focus on research in family process and family therapy.

Prerequisites: PSYC 5236 and admission to Family Therapy Program.

PSYC 6139: Intervention I: Academic and Cognitive Skills

Overview and clinical practice of research-based interventions to promote academic and cognitive skills in school-aged children. Topics include bilingual education, preschool education, curriculum-based assessment and design of reading interventions.

Prerequisite: Admissions to School Psychology Program or permission of instructor.

***PSYC 6218: Ethics and Professional Issues in Behavior Analysis**

Prerequisite: PSYC 5235 Learning Principles and admission to the Behavior Analysis program or permission from instructor.

Ethics and professional standards in the practice of behavior analysis.

PSYC 6228: Research Methods in Behavior Analysis

Prerequisite: PSYC 5235 Learning Principles and admission to the Behavior Analysis program or permission from instructor.

Application and design of research methodologies for behavior analysis. Topics include measurement, experimental design, data analysis, social validity, and ethical considerations.

PSYC 6230: Intervention II: Social and Behavioral Skills

Overview and clinical practice in school, community and family interventions that promote safe schools and social competence among children and youth.

Prerequisite: Intervention I or admission to School Psychology Program or permission of instructor.

PSYC 6231: Intervention III: Affective and Adaptive Skills

Theories and evidence-based counseling interventions for youth; field-based experience; crisis intervention; prevention issues.

Prerequisites: Admission to School Psychology Program; successful completion of PSYC 5131, PSYC 6133, PSYC 6230.

PSYC 6232: Mental Measurement

Introduction to the general area of mental measurement. Theory and content of measuring devices in fields of intelligence, interests, personality and special aptitudes.

Prerequisite: An elementary statistics course.

PSYC 6233: Advanced Family Therapy

Must be taken in conjunction with PSYC 5731 or after taking PSYC 5731. In depth review of family systems and family therapy paradigms.

Prerequisite: PSYC 5233 and admission to family therapy program or permission of instructor.

PSYC 6234: Systems and Symptoms

In depth study of systems theory with emphasis on clinical implications.

Prerequisite: PSYC 6233; admission to clinical psychology, school psychology or family therapy program.

PSYC 6235: Behavioral/Cognitive Therapies

Application of principles of behavior and cognition to individual therapy.

Prerequisite: PSYC 5235 or previous course in learning and admission to general clinical psychology, school psychology or family therapy program.

PSYC 6236: Child and Adolescent Family Therapy

Family therapy approaches to problems of children and adolescents; focus on multiple contexts such as family, school and community.

Prerequisites: PSYC 5233, PSYC 5234, PSYC 5234 and admission to the Family Therapy Program.

PSYC 6237: Culture and Consciousness

Explores the nature of interaction between culture and human consciousness. Specifically, it will examine the impact of culture on the perception of space and time, the definition of reality and the formation of belief and value structures. (Crosslisted with SOCI 4237).

PSYC 6238: Applied Behavior Analysis

The use of learning principles in applied areas such as education, business, health and human services.

Prerequisite: PSYC 5235 or equivalent.

PSYC 6239: Behavioral Interventions I

Specialized application of behavior analytic principles and methods; requires up to 10 hours per week of field activities.

Prerequisites: PSYC 5235 and PSYC 6238 or equivalent and admission to the Behavior Analysis Program.

PSYC 6330: Research and Practicum in Applied Behavior Analysis

Supervised application of behavior analytic principles and methods in community settings. Completion of a research project is required. Students may enroll in this course twice, for up to six hours of credit.

Prerequisites: PSYC 5135, PSYC 5235, PSYC 6031, PSYC 6238 and permission of instructor.

PSYC 6331: Behavioral Interventions II

Specialized application of behavior analytic principles and methods; requires up to 10 hours per week of field activities.

Prerequisites: PSYC 5235, PSYC 6238, PSYC 6031 and admission to behavior analysis program.

PSYC 6332: Intervention IV: Program Design

Methods to evaluate effectiveness of service delivery systems for special populations of children and youth.
Prerequisites: Intervention I, II and III or admission to School Psychology Program and permission of instructor.

PSYC 6335: Behavioral Pharmacology Research

Laboratory investigation of drug/brain/ behavior relationships in the rat. Readings from primary research literature, laboratory experiments and research reports.
Prerequisite: Permission of instructor.

PSYC 6336: Behavioral Neuroscience Research

Laboratory investigation of brain/behavior relationships in the rat. Readings from primary research literature, laboratory experiments and research reports.
Prerequisite: Permission of instructor.

PSYC 6431: User Centered Design

Covers how users should be included in design process including needs analysis, requirements writing, Iterative testing of low/medium/high fidelity prototypes, implementation of requirements and evaluations. Students will independently apply the UCD process to an applied problem.

PSYC 6434: Human Factors Engineering

Analysis of principles of human factors, along with introduction and overview of the HF/E disciplines.

***PSYC 6435: Human Factors Methods and Analysis**

Human Factors methods necessary for developing and testing human-machine interfaces and systems that support efficient and effective performance.

PSYC 6531: Psychopathology

Current issues and research in behavior pathology.
Prerequisite: One course in abnormal psychology.

PSYC 6534: Couple and Sex Therapy

Practice of couples therapy including theory and practice as well as the etiology of sexual dysfunctions and introduction to principles and practices of sex therapy.
Prerequisites: PSYC 5233, PSYC 5731 and admission to a professional psychology programs.

PSYC 6539: Practicum in Industrial/Organizational Psychology

Supervised application of psychological principles in an organizational setting. Review of ethical, legal and professional issues. Written report required.
Prerequisites: PSYC 5331, 5332, 6036, 6037 and permission of instructor.

PSYC 6636: Clinical Internship

Arrangements must be completed by preregistration.
Prerequisites: PSYC 5734, PSYC 5738 (2 semesters), PSYC 6038 or PSYC 6039: program approval for placement in an appropriate internship.

PSYC 6666: Clinical Internship

Minimum of two days a week in an approved internship setting; written report required. Arrangements for internship must be completed by preregistration.
Prerequisite: Admission to clinical psychology, school psychology, or family therapy program.

PSYC 6711 Seminar in Family Therapy

Current professional issues in the field of family therapy. May be repeated with permission of instructor.
Prerequisite: Admission to the Family Therapy Program.

PSYC 6734: Assessment in Industry

Psychological testing and measurement theory as it applies to assessment of people in organizations. Covers different assessment tools and their use in industry.
Prerequisites: PSYC 6036 and PSYC 6037.

PSYC 6735: Seminar in Industrial/Organizational Psychology

Issues related to the practice of I/O psychology. Topics include professional issues, consulting skills and career development. This is a hands-on course.
Prerequisites: Students must have a minimum cumulative graduate GPA of 3.00 and completion of all core I/O courses.

PSYC 6736: Advanced Personality Theory

Advanced seminar on the dynamics of personality.

PSYC 6739: Graduate Internship

Students seeking an internship must have completed PSYC 5135 and if in Human Services internship, must have completed PSYC 5134. Written report required. Arrangements for internships should be completed by the beginning of the prior semester.

Prerequisite: 24 hours of graduate level course work and approval of internship coordinator.

PSYC 6832: Advanced Cognitive Psychology

Latest theories and research findings related to human cognition. Topics include perception, attention, memory, language and unconscious processing.

Prerequisite: PSYC 4832: Cognitive Psychology.

PSYC 6836: Post-Graduate Internship in School Psychology

This site-based internship focuses student experience in the role(s) of School Psychology and directed study for the National School Psychology.

Prerequisites: Graduate degree in School Psychology or equivalent and permission of instructor.

PSYC 6839: Master's Project Research

Approval of advisor and project director required.

PSYC 6939: Master's Thesis Research

Approval of advisor and thesis director required. PSYC 6036/PSYC 6037 suggested.

SOCIOLOGY COURSES

SOCI 5032: Sociology of Mental Illness

The history of defining and treating mental illness; consequences of the social structures in which treatment occurs.

SOCI 5035: Human Rights and Social Justice

Examines methods, theories, debates and case studies related to human rights in the United States and globally. Students will gain skills required to conduct future research on the topic.

SOCI 5131: Contemporary Sociological Theory

Exploration of major developments in sociological theory since 1930, including Critical theory, Feminist theory, Post-Modern theory and Rational Choice theory.

SOCI 5133: Advanced Juvenile Delinquency

In depth analysis of delinquency theories, issues and policies in the U.S. and abroad. Topics include measurements and research, serious violent offenders, gangs and treatment by justice agencies. (Crosslisted with CRIM 5133).

SOCI 5135: The Death Penalty

Study of social aspects related to capital punishment. Topics such as deterrence, discrimination, process and law are covered. (Crosslisted with CRIM 5135).

SOCI 5136: Women and The Law

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.

SOCI 5137: Race and The Law

Evolution of legal rights of race/ethnic groups in U.S. from sociological perspective. Examination of civil rights movement, hate crimes and Affirmative Action policy.

SOCI 5236: Religion and Global Change

Examination of religion in the modern world, religious identities and the process of secularization, all from a global, cross-cultural perspective.

SOCI 5238: Negotiating Across Cultures

The challenges facing international organizations and multinational corporations in negotiating across cultures and generating decisions that take into account the beliefs and values of people of diverse cultures and political systems. (Crosslisted with PSYC 5238).

SOCI 5239: Egypt in Transition

Course exposes 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 5330: Cultural Study Abroad

Course exposes students to culture, history, religion and politics of another country. Involves foreign travel, and includes prerequisite of semester long course focusing on study abroad country.

Prerequisite: Permission of instructor.

SOCI 5331: Advanced Criminology

Study of criminal behavior from perspectives of biology, psychology and sociology. Within each discipline, major theories will be examined and critiqued. (Crosslisted with CRIM 5331).

SOCI 5332: White-Collar Crime

Study of financial, physical and social costs of white-collar crime. Examination of perpetrators and victims of consumer fraud, environmental crimes, unsafe products and political corruption. (Crosslisted with CRIM 5332).

SOCI 5333: Minorities and Majorities

The pattern of interaction among race, ethnic and gender groups; personality and structural effects of prejudice and discrimination. Course includes both U.S. and cross-cultural perspectives. (Crosslisted with PSYC 5534).

SOCI 5334: Social Stratification

Patterns of social and economic inequality in the United States. Distribution of income and wealth, social mobility, life chances, education and power. Class, race and gender differences will be discussed as well as patterns of social change.

SOCI 5335: Criminal Justice and The Mass Media

This course examines the collision between two powerful sets of social institutions-the criminal justice system and the mass media. (Crosslisted with CRIM 5335).

SOCI 5336: Law and Society

This course surveys a number of problematic issues in contemporary American society from the perspectives of sociological, philosophical and legal theories. The course examines the controversial ways our political system seeks to reconcile civil liberties with the collective obligations of the social contract. (Crosslisted with CRIM 5336).

SOCI 5337: Complex Organizations

Study of how complex organizations are used as "social tools" to attain specific ends; exploration of issues of organizational structure, goals, technology, boundaries, resources, power and organizational environments and exercises in designing prototype organizations.

SOCI 5338: Criminal Law

Study of structure and rationale for criminal law; focus on criminal liability, criminal defenses, types of offenses and contemporary issues, with attention to the Model Penal Code.

SOCI 5339: Leadership in Organizations

Overview of the topic of leadership in organizations from multiple perspectives including psychology, sociology and management. (Crosslisted with PSYC 5333).

SOCI 5430: Organizational Development

Overview of the current theories and methods of organizational development and the role of the behavioral sciences in the process. (Crosslisted with PSYC 5334).

SOCI 5431: Group and Organizational Behavior

Examination of theories of group and organizational behavior and their application to settings such as the criminal justice system and corporate organizations. Inter-group conflict and conflict resolution also considered.

SOCI 5432: Human Services Management

Management principles, leadership, conflict resolution, budgeting and fundraising in human services agencies and government and other community organizations. (Crosslisted with PSYC 5430).

SOCI 5433: Social Conflict and Mediation

Examines theories of social conflict and application of dispute resolution/mediation techniques to needs of community groups, courts, churches, businesses and non-governmental agencies.

SOCI 5436: Adult Development

Examination of common development patterns during the adult years. Emphasis on the interrelationships among work, family and leisure. (Crosslisted with PSYC 5436).

SOCI 5437: Aging

Study of current and future issues relating to the elderly from both a psychological and societal perspective. (Crosslisted with PSYC 5437).

SOCI 5532: Advanced Social Psychology

Theory, methodology and research findings pertinent to the individual in social context. (Crosslisted with PSYC 5532).

Prerequisite: PSYC 4131, PSYC 6036, PSYC 6037 or equivalent.

SOCI 5533: Sociology of Human Intimacy

Inquiring into the forms and dynamics of human intimacy. Topics include attraction, sexuality, marriage and divorce, domestic violence, friendship and loneliness. (Crosslisted with PSYC 5531).

SOCI 5535: Cross-Cultural Perspectives in The Family

Crosscultural data are used to examine family systems in terms of marriage, sex roles and child rearing. "May include Women's Studies content." (Crosslisted with ANTH 4531, ANTH 5531 and PSYC 5535).

SOCI 5536: Culture and Economic Change

The course will examine the effects of cultural values and social organization on business endeavors, entrepreneurship and economic change. The role of transitional corporations in breaking down traditional practices and possibly creating new cultures will also be explored.

SOCI 5537: Urban Problems

Examine classical theories of urban life and urban development; explores urban problems such as crime, transportation, suburban conflict and corresponding urban policy.

SOCI 5931: Research Topics in Sociology

Identified by specific topic each time course is offered.

SOCI 5939: Independent Study in Sociology

Independent study in Sociology.

Prerequisites: Approval of advisor and independent study director.

SOCI 6338: Strategic Planning

An introduction to planning and decision making approaches that reflect anticipated changes in organizational, environmental and competitive conditions.

SOCI 6730: Graduate Statistics

Multivariate statistical analysis including logit regression and path analysis.

Prerequisite: Must be Sociology major; must pass undergraduate statistics test during first day of class with score of 80% or higher.

SOCI 6731: Graduate Research Methods

Advanced study of logic, principles and procedures involving techniques of data collection, organization and statistical analyses.

Prerequisite: Must be Sociology major; must pass undergraduate methods test during first day of class with score of 80% or higher.

SOCI 6735: Seminar in Sociology

Overview of the discipline of sociology, covering recent theoretical trends in the last 20 years. Focus will be on institutions of family, educational system, economy, community and the state.

Prerequisites: SOCI 5334 and SOCI 5537.

SOCI 6739: Graduate Internship

Minimum of two days a week in an approved internship setting. Written report required. Arrangements for internships should be completed by the beginning of the prior semester.

Prerequisite: Twenty-four hours of graduate level course work and approval of Internship Committee.

SOCI 6839: Master's Project Research

Approval of advisor and project director required.

SOCI 6939: Master's Thesis Research

Approval of advisor and thesis director required.

SPANISH COURSES**SPAN 5031: Intensive Spanish I**

This course is designed to provide Spanish language proficiency and communication skills; listening, reading, speaking and writing.

SPAN 5033: Intensive Spanish II

Development of Spanish communication skills: listening, reading, speaking and writing.

Prerequisite: 1 semester of college Spanish or 2 years of high school Spanish.

SPAN 5035: Intensive Spanish III

Development of Spanish communication skills and cultural background.

Prerequisite: 2 semesters of college Spanish or 4 years of high school Spanish.

SPAN 5931: Research Topics in Spanish

Identified by specific topic each time course is offered.

WOMEN'S STUDIES COURSES

WMST 5337: Violence Against Women

Global perspectives of violence against women by men. Topics include rape, sexual abuse, incest, female genital mutilation, battering, sexual slavery, sexual harassment.

WMST 5533: Psychology of Gender, Race & Sexuality

Topics include sex roles, stereotyping, socialization of women and men, feminism, female sexuality, feminist therapy, androgyny, situation of minority women.

WMST 5732: Seminar in Women's Studies

An advanced course in Women's Studies. Analysis and application of feminist theory across multiple disciplines.

Prerequisite: Any other Women's Studies course.

WMST 5931: Research Topics in Women's Studies

Identified by specific title each time course is offered.

WMST 5939: Independent Study in Women's Studies

Independent study in Women's Studies. Approval of independent study director.



UHCL's Art Gallery holds exhibits throughout the year featuring Houston-area faculty, guest artists and UHCL graduate and bachelor of fine arts student shows.





A graduate student works closely with Assistant Professor of Biology and Biotechnology Lory Santiago-Vasquez in UHCL's Biotechnology Laboratory.



SCHOOL OF SCIENCE AND COMPUTER ENGINEERING

- Biological Services
- Biotechnology
- Chemistry
- Computer Engineering
- Computer Information Systems
- Computer Science
- Engineering Management
- Environmental Science
- Mathematical Science
- Physics
- Software Engineering
- Statistics
- Systems Engineering

The School of Science and Computer Engineering (SCE) offers high quality academic degrees consistent with the role of a regional public university. Plans within the school prepare graduates to enter fields in natural sciences, mathematics, computing and computer and software engineering. Individuals in the school'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 school 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.

The School of Science and Computer Engineering has three divisions; the Division of Computing and Mathematics, the Division of Engineering and the Division of Natural Sciences. The faculty of each division aspires to a professional model that includes balance among the components of the SCE mission: teaching, research and service.

The Division Chair of Computing and Mathematics coordinates the plans in Computer Information Systems, Computer Science, Mathematical Science and Statistics. The Division Chair of Engineering coordinates the plans in Computer Engineering, Software Engineering, Systems Engineering and Engineering Management. Support areas include telecommunications, robotics, control systems, industrial modeling, mathematical modeling and petrochemical processes.

The Division Chair of Natural Sciences coordinates the plans in Biological Sciences, Biotechnology, Chemistry, Environmental Science and Physics. Sub-plans or specialization areas include physiology/pre-health, cell/molecular, ecology/microbiology, biotechnology, environmental chemistry, environmental geology, environmental biology, industrial hygiene, safety and technical management. The Chemistry Program has complete accreditation from the American Chemical Society (ACS).

STANDARDS AND REQUIREMENTS FOR DEGREES IN THE SCHOOL OF SCIENCE AND COMPUTER ENGINEERING

ADMISSION INTO A DEGREE PLAN

Following admission to the university, students' transcript evaluations are forwarded to the Office of Student Advising. All graduate plans require that faculty admissions committees review the students' files and determine whether students will be accepted into degree plans. Students are notified of their admission status by the associate dean. Once accepted to a degree plan, students meet with academic advisors at New Student Orientation to obtain detailed instructions about completing a Candidate Plan of Study (CPS). The CPS delineates specific requirements of a study area and must be completed during the semester of acceptance into a degree plan.

In general, no more than 9 hours for a graduate degree taken at University of Houston-Clear Lake prior to completion of a CPS may be applied toward any degree in the school. These hours, along with the hours accumulated during the semester the CPS is being finalized, will be evaluated for acceptance by the faculty advisor and approved by the associate dean.

STANDARDS FOR GRADUATE DEGREES

The Graduate Record Exam (GRE) is required of all students applying for admission to a graduate plan in the school. Computer Information Systems is the only plan that accepts Graduate Management Admission Test (GMAT) in lieu of the GRE. It is recommended that students who apply for admission to a graduate plan have a grade point average (GPA) of at least 3.000 (four point grade scale) on the last 60 hours of course work. GRE scores will be evaluated by the degree plan's admissions committee and will be used as one of the indicators of the applicant's potential for completion of the plan to which he/she has applied. Individual degree plans may specify additional qualifications (see individual plan descriptions).

All graduate degrees in the School of Science and Computer Engineering require 30-36 hours depending on specific plan requirements; a minimum of 30 hours must be graduate courses. No more than six hours of upper-level (4000 level) credit will be allowed in any master's degree. A maximum of six hours of Independent Study may be applied to any master's degree. A maximum of six hours of grades within the range of "C+," or "C" may be counted toward any graduate degree.

GRADUATE DEGREE OPTIONS

Thesis Option

Students selecting the thesis option must select a committee and submit a formal thesis proposal to the Office of the Dean prior to enrolling for thesis courses. The thesis committee will consist of at least three members, two of whom must be full-time UHCL faculty members. A fulltime faculty member of the School of Science and Computer Engineering will serve as the chair of the committee. The Office of the

Dean will notify students, chairs and committee members of approval of the committee composition. The chair will report the final grades.

Students must register for the appropriate thesis research course no later than the first long semester after the dean has accepted the proposal. See the Master's Degree Option: Master's Thesis section of this catalog for more information.

University and SCE guidelines and procedures relating to the graduate thesis committee, thesis proposal, the thesis document and defense are described in the Graduate Thesis Guidelines and Procedures Manual available in the Office of the Dean.

Extended Course Work Option

All graduate plans in the school offering this option require a capstone course. See the particular plan area for the specific extended course work option requirements.

Internship Option

Some plans offer an internship option. See the particular plan of interest.

Research Project Course Option

Some plans offer a research project course option. See the particular plan of interest.

DIVISION OF COMPUTING AND MATHEMATICS

Students desiring to study in the computing and mathematics division may choose any one of five undergraduate or four graduate plans. Applicants should consult the chair of the division for additional information.

REQUIREMENTS AND STANDARDS FOR PLANS IN COMPUTING, MATHEMATICAL SCIENCE AND STATISTICS

Graduate Degree Candidacy

Students seeking graduate degree candidacy should have a bachelor's degree in a related field. To be accepted for degree candidacy, students should be within 15 hours of completing upper-level foundation courses. These courses are listed in the particular degree area in the catalog. All foundation courses must be completed within one calendar year of first graduate registration at UHCL. Students needing more than 15 hours of upper-level foundation courses are encouraged to complete a second bachelor's degree.

GRADUATE COMPUTING DEGREES

Computer Information Systems

Graduate studies in Computer Information Systems lead to a master of science (MS) degree. This plan is designed to prepare students for key technical, administration and management positions in the analysis, design, implementation, maintenance, operation and management of industrial and commercial computer information systems.

Basic Preparation

Students aspiring to graduate degree candidacy must have a bachelor's degree in a related area and a background in Computer Information Systems. Preparatory requirements are proficiency in at least two high level languages, including an object-oriented programming language such as Java, C++ or C#, and the following undergraduate course:

Calculus I or Business Calculus

Upper-level foundation course requirements:

CINF 3331	Business Data Communications
CSCI 3331	Comp Org & Assembly Lang
CSCI 3333	Data Structures
CSCI 4230	Web App Development
CSCI 4333	Design of Database Systems
MATH 3331	Discrete Mathematics
SWEN 4432	Software Engineering (or CENG 3331 + CENG 3311)

None of the above courses may apply to the graduate degree.

Students may select from the thesis option or the extended course work option. The thesis option requires 33 credit hours of graduate work and the extended course work option requires 36 credit hours.

Core Requirements (9 Hours)

The following courses, or approved substitutions are required for both the thesis option and extended course work options:

CSCI 5132	Internet Protocols
CSCI 5333	Database Management Systems
CSCI 6530	Research Methods in Computer Science

Thesis Option (24 Hours)

CENG/CINF/CSCI/SWEN or other approved related courses	6 hours
CINF/CSCI 4000-6000 level	3 hours
*CINF/CSCI courses, 5100-6000 level	9 hours
CSCI 6939 Master's Thesis Research	6 hours

* Students interested in pursuing the thesis option are encouraged to take CINF 5939 (Independent Study in CIS) during their first year, in order to write up their thesis proposals (with the sponsoring of a faculty advisor).

Extended Course Work Option (27 Hours)

Students desiring to follow the extended course work option must successfully complete the capstone project course (CINF 6838).

CENG/CINF/CSCI/SWEN or other approved related courses	6 hours	
CINF/CSCI 4000-6000	6 hours	
CINF/CSCI 5100-6000	12 hours	
CINF 6838	Research Project and Seminar (taken after completion of the required core and during last 12 hours)	3 hours

Sub-plan in Database and Web-based Systems

Students interested in developing a sub-plan in Database Systems and Web-based Systems should take the following electives:

CSCI 5433	Object-Oriented Database Systems
CSCI 5533	Distributed Information Systems
CSCI 5633	Web Database Development
CSCI 5733	XML Application Development
CSCI 5833	Data Mining: Tools and Techniques

Sub-plan in Networking and Security

Students interested in developing a sub-plan in Networking and Security should take the following electives:

CENG 5333	Network Performance Analysis
CSCI 5233	Computer Security and Integrity
CSCI 5234	Web Security
CSCI 5235	Network Security
CSCI 5431	Client-Server Based Network Programming
CSCI 5531	Advanced Operating Systems

Suggested Plan of Study (for students in the Thesis Option)

The following study plan for the four regular semesters is recommended as a typical example for incoming full-time CIS students who plan to pursue the Thesis option. Individual study plans may vary as long as the prerequisite structures are satisfied. Students should seek the advice of their assigned faculty advisor and set up their Candidate Plan of Study (CPS) as early as possible.

Semester 1 (9 credits)

CSCI 5132	Internet Protocols
CSCI 5333	Database Management Systems
CINF/CSCI	4000-6000 level

Semester 2 (9 credits)

CINF/ CSCI	5000-6000 level
CSCI 6530	Research Methods in Computer Science
CINF/CSCI 5939	Independent Study

Semester 3 (9 credits)

CENG/CINF/SWEN	or other approved related courses
CINF/CSCI	5100-6000 level
CINF/CSCI 6939	Master's Thesis Research

Semester 4 (6 credits)

CINF/CSCI	5100-6000 level
CINF/CSCI 6939	Master's Thesis Research

Computer Science

The plan in Computer Science leads to the master of science (MS) degree. This plan is designed to prepare students to hold key technical positions in the development of computer-based solutions to complex systems problems.

Basic Preparation

Students seeking admission into the degree plan in Computer Science must have a bachelor's degree in computer science or a closely related area and extensive background in computer science. It is expected that the minimum GRE score required for acceptance into the plan be reasonably balanced among the different components of the GRE exam. Students with bachelor's and master's degrees in related fields of study will be required to complete appropriate background courses. The admissions committee, during evaluation of the student's application, will designate courses to be completed before beginning graduate studies. Preparatory requirements include proficiency in at least two modular computer programming languages, including C or C++, plus the completion of the following undergraduate courses, their equivalents or successful completion of equivalence exams upon approval from the admissions committee.

Calculus II (Not offered at UHCL)

CENG 3511	Lab for Computer Architecture
CENG 3531	Computer Architecture
CSCI 3331	Comp Org & Assembly Language
CSCI 3333	Data Structures
CSCI 3532	Adv Data Structures & Algorithms
CSCI 4333	Design of Database Systems
CSCI 4534	Operating Systems
MATH 3131	Introduction to Linear Algebra
SWEN 4432	Software Engineering

Additionally, at least two of the following must be completed:

CSCI 3231	Numerical Methods
PHYS 3032	University Physics II
MATH 3331	Discrete Mathematics
MATH 3334	Probability and Statistics for Scientists & Engineers
MATH 4131	Ordinary Differential Equations and Applications

None of the above courses may apply towards the graduate degree.

Students should consult with their faculty advisor to determine if they have sufficient background to satisfy a specific course prerequisite. Foundation and prerequisite courses should be completed before enrolling in any graduate course.

Students expecting credit for foundation courses completed at international institutions must submit course descriptions. This will allow proper evaluation and appropriate credit.

Students may select from the thesis option or the extended course work option. The thesis option requires 33 credit hours of graduate work. The extended course work option requires 36 credit hours.

Core Requirements (12 Hours)

The following courses or their approved substitutions are required for both the thesis and the extended course work options:

CSCI 5333	Database Management Systems
CSCI 5531	Advanced Operating Systems
CSCI 6530	Research Methods in Computer Science

One of the following:

CSCI 5232	Concepts of Programming Languages
CSCI 5432	Design and Analysis of Algorithms

Thesis Option (21 Hours)

Required courses for thesis option.

CSCI/CINF/SWEN/CENG/SENG 4000-6000	3 hours
CSCI electives	3 hours
CSCI/CINF electives	3 hours
CINF/SWEN/CENG/SENG electives	6 hours
CSCI 6939 Master's Thesis Research	6 hours

Extended Course Work Option (24 Hours)

Complete the following courses:

CSCI/CINF/SWEN/CENG/SENG	4000-6000	6 hours
CSCI electives	5100-6000	6 hours
CSCI/CINF electives	5100-6000	6 hours
CINF/SWEN/CENG/SENG electives		3 hours
CSCI 6838	Research Project and Seminar	3 hours

NOTE: CSCI 6838 must be taken during the last 12 hours, after completion of CSCI 5531 and CSCI 5333

Sub-plans

Students interested in developing a sub-plan should take the corresponding courses listed below:

Sub-plan in Database Systems

CSCI 5433	Object-Oriented Database Systems
CSCI 5533	Distributed Information Systems
CSCI 5633	Web Database Development
CSCI 5733	XML Application Development
CSCI 5833	Data Mining: Tools and Techniques

Sub-plan in Network Performance and Security

CENG 5333	Network Performance Analysis
CSCI 5132	Internet Protocols
CSCI 5233	Computer Security and Integrity
CSCI 5234	Web Security
CSCI 5235	Network Security
CSCI 5631	N-Tiered Client-Server Architectures

Sub-plan in Data Mining and Computational Bioinformatics

BIOT 5733	Bioinformatics
CENG 5634	Artificial Neural Networks
CSCI 5530	Pattern Classification
CSCI 5532	Pattern Recognition and Image Processing
CSCI 5833	Data Mining: Tools and Techniques
CSCI 5933	Computational Bioinformatics

Participation with PhD Degree at Texas A&M University

The Computer Science Department of Texas A&M University is accepting applications for the PhD plan from interested UHCL graduates. The degree requirements include minimal residence at the Texas A&M campus. Texas A&M University maintains the same entrance standards for all applicants. This case by case plan supports research within the Clear Lake area technical community. Individuals may contact the Chair of the UHCL Computer Science plan for details.

MATHEMATICAL SCIENCE AND STATISTICS DEGREES

Mathematical Science

The graduate plan in Mathematical Science leads to the master of science (MS) degree. Applicants for candidacy should have a bachelor's degree in mathematics. Students with other degrees may apply if their preparation includes a substantial number of advanced credits in mathematics. In some cases, additional preparatory courses may be required.

Undergraduate Foundation Courses for Masters in Mathematics

- Ordinary Differential Equations
- Abstract Algebra
- Advanced Calculus
- Real Analysis

Introduction to Probability may be waived with advisor's consent if undergraduate real analysis is successfully completed before enrollment in STAT 5431 Theory and Application of Probability.

With advisor's approval, two of the following may count towards the Master's Degree if taken as a graduate student at UHCL: MATH 4431 (Introduction to Analysis) and MATH 4232 (Introduction to Abstract Algebra) or MATH 4133 (Introduction to Topology). [Provided that equivalent courses have not been completed previously]

Course selections will be arranged in consultation with a faculty advisor while preparing the CPS. Students selecting the extended course work option must complete MATH 6837 (Research Project 1). This is to be taken after successfully completing nine hours of core and during the last 9 hours of course work. MATH 6838 (Research Project II) can be completed following MATH 6837 with faculty adviser approval prior to registration.

Core Requirements (18 Hours)

MATH 5131	Abstract Algebra
MATH 5132	Real Analysis
MATH 5136	Ordinary Differential Equations & Dynamical Systems

Students will select three courses from the following seven:

MATH 5134	Logic
MATH 5137	Topology & Geometry
MATH 5231	Linear Algebra

MATH 5330	Mathematical Software & Modeling Simulation
MATH 5333	Numerical Analysis
MATH 5431	Mathematical Modeling in the Applied Sciences
STAT 5431	Theory & Application of Probability

Thesis Option (18 Hours)

MATH, STAT courses, 5000-6000 level	6 hours
Electives, 5000-6000 level courses	6 hours
MATH 6939 Master's Thesis Research	6 hours

Extended Course Work Option (18 Hours)

MATH, STAT courses, 5000-6000 level	6 hours
Electives, 5000-6000 level courses	6 hours
MATH Electives, 4000-6000 level	3 hours
MATH 6837 Research Project I	3 hours

Statistics

The plan in Statistics leads to a master of science (MS) degree. This plan emphasizes a curriculum that is designed to educate students in the theory and application of statistics. The plan is suitable for students with an undergraduate background in mathematics, engineering or the sciences.

Students with degrees in engineering, science or other fields will be considered if their preparation includes an adequate number of upper-level credits in mathematics and statistics. In some cases, additional preparatory courses may be required.

Core Requirements (21 Hours)

The following courses or their approved substitutes are required:

STAT 5431	Theory & Application of Probability
STAT 5432	Theory & Applications of Statistics
STAT 5531	Multivariate Statistical Analysis
STAT 5532	Linear Models & Regression Analysis
STAT 5533	Statistical Computing
STAT 5534	Sampling Methods
STAT 5535	Experimental Designs & Analysis

Thesis Option (15 Hours)

STAT courses, 5000-6000 level	3 hours
Approved Electives, 5000-6000 level	3 hours
MATH or STAT electives, 4000-6000 level	3 hours
STAT 6939 Master's Thesis Research	6 hours

Extended Course Work Option (15 Hours)

Students desiring to follow the extended course work option must complete STAT 6837 and STAT 6838 during the last 18 hours of course work.

STAT courses, 5000-6000 level	3 hours
Approved Electives, 5000-6000 level	3 hours
MATH or STAT electives, 4000-6000 level	3 hours
STAT 6837 and STAT 6838	6 hours

Dual Master Degrees of Mathematics and Statistics

The graduate plan in Mathematics and Statistics leads to a Master of Science (MS) degree in Mathematics and a Master of Science (MS) degree in Statistics. This plan

emphasizes a curriculum that is designed to educate students in both Mathematics and Statistics. The plan is suitable for students with degrees in engineering, science or other fields with an undergraduate background in mathematics.

Core Requirements (33 Hours)

The following courses or their approved substitutes are required:

MATH 5131	Abstract Algebra
MATH 5132	Real Analysis
MATH 5136	Ordinary Differential Equations & Dynamical Systems
MATH 5231	Linear Algebra
STAT 5431	Theory & Application of Probability
STAT 5432	Theory & Applications of Statistics
STAT 5531	Multivariate Statistical Analysis
STAT 5532	Linear Models & Regression Analysis
STAT 5533	Statistical Computing with SAS and S-Plus

Students will select two courses from the following six courses:

MATH 5133	Complex Analysis
MATH 5134	Logic
MATH 5137	Topology & Geometry
MATH 5232	Number Theory
MATH 5333	Numerical Analysis
MATH 5431	Math Modeling in the Applied Sciences

Thesis Option (27 Hours)

MATH /STAT courses	5000-6000 level	9 hours
Electives	5000-6000 level	6 hours
MATH /STAT electives	4000-6000 level	6 hours
MATH or STAT 6939	Master's Thesis Research	6 hours

Extended Course Work Option (27 Hours)

Students desiring to follow the extended course work option must complete Research Project I and II (MATH 6837/6838 or STAT 6837/6838) during the last 18 hours of course work.

MATH /STAT courses	5000-6000 level**	9 hours
Electives	5000-6000 level	6 hours
MATH /STAT electives	4000-6000 level	6 hours
MATH 6837/6838 or STAT 6837/6838		6 hours

** Note: At least 6 of these 9 credit hours have to be in the field in which the thesis or research project is done.

DIVISION OF ENGINEERING

Students desiring to study in engineering may choose from four graduate plans. The four graduate plans are Computer Engineering (CENG), Software Engineering (SWEN), Systems Engineering (SENG) and Engineering Management (EMGT). Applicants should consult the chair of the division for additional information.

REQUIREMENTS AND STANDARDS FOR PLANS IN ENGINEERING

Graduate Degree Candidacy

Students seeking graduate degree candidacy should have a bachelor's degree in a related field. To be accepted for degree candidacy, students should be within 15 hours of completing upper-level foundation courses. These courses are listed in the particular degree area in the catalog. All foundation courses must be completed within one calendar year of first graduate registration at UHCL. Students needing more than 15 hours of upper-level foundation courses are encouraged to complete a second bachelor's degree.

COMPUTER ENGINEERING

The plan in Computer Engineering leads to the master of science (MS) degree. Graduate study in this plan prepares students to occupy leading roles in the development and use of computers and computer systems. The plan in Computer Engineering addresses the evaluation, design and implementation of computer systems for various applications. The curriculum and faculty research emphasize the integration of systems design, software applications and hardware design. Current specializations within the computer engineering degree plan include embedded system design, digital signal processing, computer control systems, industrial automation and robotics, fault-tolerant computing, parallel processing, telecommunications and networking. The plan consists of formal courses, laboratory work and research in one of the specialty areas conducted under the guidance of a faculty advisor.

Basic Preparation

Candidates should have a bachelor's degree in Computer Engineering or equivalent. Students should consult an academic advisor to determine if they have sufficient background to satisfy course prerequisites. At a minimum, the following undergraduate courses, or their equivalents, are required and should be completed prior to enrolling in certain graduate courses:

CENG 3112	Lab for Digital Circuits
CENG 3132	Digital Circuits
CENG 3511	Lab for Computer Architecture
CENG 3531	Computer Architecture
CENG 4133	Microprocessor Interfacing
CENG 4331	Analysis and Design of Linear Systems
CENG 4534	Digital System Design
CSCI 3133	Programming with C
CSCI 3231	Numerical Methods
CSCI 3331	Comp Org and Assembly Language
MATH 4131	Ord Diff Equations & Appl

Core Requirements (12 Hours)

The following courses or their approved substitutions are required for both the thesis and the extended course work options.

CENG 5131	Engineering Applications	3 hours
CENG 6332	High Performance Computer Architecture	3 hours

Students will select two more core courses from the following four:

CENG 5334	Fault Tolerant Computing	3 hours
CENG 5434	Microcomputer Systems Design	3 hours
CENG 5531	Machine Learning and Applications	3 hours
CENG 5534	Advanced Digital System Design	3 hours

Elective Requirements (18 Hours)

The following courses or their approved substitutions are required for both the thesis and the extended course work options.

CENG courses	5100-6000 level	6 hours
CENG/CSCI/SWEN courses	5100-6000 level	6 hours
Approved technical elective	4000-6000 level	6 hours

Thesis Option (6 Hours)

CENG 6939	Master's Thesis Research	6 hours
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Note: an additional 3 hours of thesis may be used as a plan elective.

Extended Course Work Option (6 Hours)

CENG 6838	Research Project*	3 hours
CENG elective	5000-6000 level	

Note: An extra 3 hours of CENG 6838 project may be used as a plan elective. 3 hours

*To be taken after completion of core courses and during last 12 hours

Sub-plan in Digital Signal Processing (DSP)

Students interested in developing a sub-plan in Digital Signal Processing should take the following as electives:

CENG 5431	Digital Signal Processing
CENG 6431	DSP Implementations
CENG 5433	Principles of Digital Communication

Sub-plan in Telecommunications

Students interested in developing a sub-plan in telecommunications should take the following as electives:

CENG 5333	Network Performance Analysis
CENG 5431	Digital Signal Processing
CENG 5433	Principles of Digital Communication. Systems

ENGINEERING MANAGEMENT

The graduate plan in Engineering Management (EMGT) leads to the master of science (MS) degree. The Engineering Management Plan offers the candidate the opportunity to earn an advanced degree in two years while maintaining full-time employment. The EMGT curriculum provides the candidate with an enhanced perspective on issues that affect the management of technology and enterprise organization in today's world. The material is targeted to equip the candidate with the tools to better manage projects, processes, personnel, products and services. From management of organizations and optimal decision-making, to engineering and economics, the interdisciplinary courses were designed to provide more leadership

opportunity to individuals with technical background. The individuals with engineering and scientific backgrounds will find that this master of science degree may better suit their needs than the traditional MBA.

The Engineering Management (EMGT) curriculum is composed of 30 hours of graduate course work of which 18 hours will be core requirements and 12 hours will be elective courses. The 12 hours of electives could be either a 9 hour course elective with the Capstone Project (3 hours) or 6 hours of Thesis (6 hours). The following course plan of study illustrates the cross-disciplinary nature of the program. The program could be completed either online or face-to-face at your needs. The Web site for the Engineering Management program is <http://www.uhcl.edu/EngineeringManagement>

Entrance Requirements

To enter the EMGT plan, a candidate must hold a bachelor's degree in engineering, science or significant work experience in either field. The candidate must be approved by the graduate admission committee to ensure that the appropriate industrial or existing managerial background knowledge base is present.

The application materials include a resume summarizing candidate's career objectives and professional experience as well as the letters of recommendations from a current employer, if any. The GRE is required of all candidates applying for admission. The preferred GRE score is at least 1000 (verbal + quantitative), with a verbal score of 400 or higher. GRE scores will be evaluated by the admissions committee and will be used as one of the indicators of the applicant's potential for completion of the plan. It is recommended that candidates who apply for admission have a GPA of 3.0 or greater (four point grade scale) on the last 60 hours of course work.

The graduate degree in EMGT requires 30 hours of graduate courses. No 4000 level credits will be allowed for the EMGT master's degree. A maximum of six hours of grades of "C" may be counted toward the graduate degree; grades of "C-" will not apply.

Foundation Courses Required for Entrance

In addition, the EMGT graduate admission committee may require that a set of foundation courses and their prerequisites be completed before enrolling in graduate EMGT program. The foundation courses are:

MATH 4131 Ordinary Differential Equations and Apps
MATH 3334 Probability and Statistics for Scientists & Engineers

The admission committee may also assign further prerequisites depending upon candidate's qualification in terms of professional experience and English proficiency. The admission committee based upon plan needs, the guidelines stated herein and UHCL admission requirements will decide acceptance into the program. Once admitted, the candidate must file a Candidate Study Plan (CPS) in the first semester of enrollment.

Core Requirements (18 Hours)

*Pending Coordinating Board Approval

The following 18 hours of core requirements are required for both thesis and capstone option.

EMGT 5130	New Business Development	3 hours
EMGT 5230	Negotiation Strategies	3 hours
EMGT 5231	Engineering Management Planning	3 hours
EMGT 5330	Service and Operations Management	3 hours
*EMGT 5430	Professional Project Management	3 hours
*EMGT 5530	Organizational Analysis and Management	3 hours
or		
MGMT 5032	Human Behavior in Organizations	3 hours
*EMGT 5531	Technology Planning and Management	3 hours
or		
MGMT 5636	Management of Technology	3 hours

Elective Requirements

*Pending Coordinating Board Approval

The master degree candidates with capstone and thesis options must complete 9 hours of electives and 6 hours of elective requirements, respectively.

EMGT 5131	Legal Issues in Engineering Management	3 hours
EMGT 5230	Negotiation Strategies	3 hours
EMGT 5331	Six-Sigma Quality	3 hours
SENG 5130	Systems Engineering Processes	3 hours
SENG 5230	Systems Engineering Economics	3 hours
SWEN 5230	Software Project Management	3 hours
MGMT 5638	Managing Technical and Professional People	3 hours

Capstone Option (18 hours of core + 9 hours of electives + 3 hours of Capstone)

The Capstone enrollment is limited to candidates who have completed 18 hours of the EMGT core and elective requirements and their prerequisites. Under the capstone option, the master degree candidates must complete 18 hours of core requirements and 9 hours of elective requirements. Capstone course is available online.

EMGT 6837	Engineering Management Capstone Project	3 hours
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Thesis Option (18 hours of core + 6 hours of electives + 6 hours of Thesis)

Master degree candidates must complete 18 hours of core requirements and 6 hours of elective requirements. The thesis is counted 6 hours. A candidate must form a thesis committee and prepare a thesis proposal in the semester prior to enrollment into thesis. The master degree candidacy must have the approval of the candidate's faculty advisor and the Dean of SCE.

EMGT 6939	Master's Thesis Research	6 hours
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Project Management and Six Sigma Certificate

This is a joint certificate for Project Management and Six Sigma. This joint certificate could be obtained by either a non-degree seeking option or a degree-seeking option. For a non-degree seeking option, the admission requirements for the certificate program are as follows: The completion of the foundation courses and an undergraduate GPA of 3.0. (The GRE is not required). A student pursuing the certificate could possibly transfer the certificate courses to the EMGT degree after completion of the certificate. To do this the student must take the GRE, apply and be accepted to the EMGT program. To earn the certificate the 4-course set below must be completed within a 4 year time limit.

The degree-seeking students who are enrolled in EMGT master program could also obtain the certificate by completing the course-set. Contact the SCE advising office for further instructions.

EMGT 5230	Negotiation Strategies
EMGT 5231	Engineering Management Planning
EMGT 5331	Six-Sigma Quality
EMGT 5430	Professional Project Management

SOFTWARE ENGINEERING

The graduate plan in Software Engineering leads to the master of science (MS) degree. Students are best prepared for this program by having an undergraduate degree in Computer Science or Computer Engineering. Studies in this degree address the foundations, methodologies and tools used in the management, planning, design and engineering of software systems. By providing a careful balance between theory and practice, the Plan prepares students for key software positions in industry, government, and institutions where software engineering has become a key activity. The Plan requires seven core areas of software engineering to be mastered. Each of these key areas is covered by a dedicated core course. The plan also allows for further expansion into one of three areas (subplans): Software Project Management, Gaming, and Software Safety. The software engineering degree is designed to prepare students for jobs such as system analyst, requirements engineering, software architecture, software project manager, or software designer.

Credit earned before acceptance.

No more than 9 hours of graduate level Software Engineering classes may be applied to the SWEN degree if taken without admission into the program. No more than 6 hours graduate credit may be transferred to the Software Engineering degree.

Candidate Plan of Study (CPS): Students accepted in the Software Engineering program must file a candidate plan of study with their assigned faculty advisor within the first semester of study. The candidate plan of study details all courses the student must take to fulfill the degree requirements.

Entrance Requirements

To enter the Software Engineering plan as either a local student or distance student, a candidate must hold a bachelor's degree in computer science, computer engineering, software engineering or closely related field, must submit GRE scores of at least 1000 (verbal + quantitative), with a verbal score of 400 or higher and a GPA of 3.00 or higher. The faculty graduate admissions committee will decide acceptance into the program based upon program need, the guidelines stated herein and university admission requirements. Once admitted, the student must file a candidate plan of study (CPS) in the first semester of enrollment. Foundation courses, and other courses, that are found to be needed are added to the CPS and must be completed in or before the first year of enrollment.

Foundation Courses Required for Entrance

Foundation courses and their prerequisites are required for entry and must be completed before enrolling in graduate SWEN courses.

CSCI 3333	Data Structures	3 hours
MATH 3331	Discrete Mathematics**	3 hours
MATH 3334	Probability and Statistics for Scientists and Engineers**	3 hours

** Math 3331 and 3334 required if quantitative GRE < 500

Core Requirements (21 Hours)

SWEN 5130	Requirements Engineering	3 hours
SWEN 5232	Software Construction	3 hours
SWEN 5233	Software Architecture	3 hours
SWEN 5234	Software Engineering Processes	3 hours
SWEN 5432	Software Engineering Life Cycle	3 hours
SWEN 5132	Software Design Patterns	3 hours
SWEN 5534	Reuse and Reengineering	3 hours

Capstone Option (3 hours of capstone + 12 hours of electives)

SWEN 6837	Software Engineering Capstone Project**	3 hours
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**Capstone enrollment is limited to students who are in their graduating semester and have completed all 21 hours of the SWEN core and their prerequisites.

EMGT/SENG/CENG/CSCI/SWEN *technical elective	5100-6000 level	3 hours
EMGT/SENG/CENG/CSCI/SWEN *technical elective	4000-6000 level	3 hours
SWEN *technical elective	4000-6000 level	3 hours
SWEN *technical elective	5100-6000 level	3 hours

*Courses taken as electives in SWEN require permission of the faculty advisor before enrolling.

Thesis Option (6 hours of thesis + 9 hours of electives)

SWEN 6939	Master's Thesis Research	6 hours
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Students must form a thesis committee and prepare a thesis proposal in the semester prior to enrollment into thesis. Contact the SCE advising office for instructions.

EMGT/SENG/CENG/CSCI/SWEN *technical elective	4000-6000 level	6 hours
SWEN *technical elective	5100-6000 level	3 hours

*Courses taken as electives require permission of the faculty advisor before enrolling.

Students interested in concentrating their study in a sub-area of software engineering such as Gaming, Safety or Project Management should choose as electives those courses listed under the respective sub-plans listed below. The Gaming subplan is only available as face to face on campus classes, whereas the safety and management subplans may be available online.

Gaming Sub-plan

SWEN 5134	Gaming with SOA	3 hours
SWEN 5136	Software for Robotics	3 hours
SWEN 5137	Game Design and Development	3 hours
SWEN 5138	Virtual Worlds, Sims and Animation Scripting	3 hours

Software Safety Sub-plan

SENG 5330	Risk Management	3 hours
SENG 5334	Human Factors Engineering	3 hours
SWEN 5431	Testing, Validation and Verification	3 hours
SWEN 5133	Aspect Oriented Development	3 hours

Software Project Management Sub-plan

SENG 5330	Risk Management	3 hours
SWEN 5230	Software Project Management	3 hours
SWEN 5435	Personal Software Process	3 hours
EMGT 5531	Technology Planning and Management	3 hours

Web Based Electives (Distance Option)

CSCI 5333	Database Management Systems
SENG 5330	Risk Management
*SWEN 5532	Software Safety
SWEN 5133	Aspect-Oriented Development
SWEN 5134	Gaming with Service Oriented Architecture
SWEN 5230	Software Project Management
SWEN 5430	Software Metrics
SWEN 5431	Testing, Validation and Verification
SWEN 5435	Personal Software Process

Students should consult the Software Engineering Course Roster in this catalog for prerequisites.

SOFTWARE ENGINEERING VIA DISTANCE EDUCATION (ONLINE)

The Software Engineering program may be taken as an online degree. All SWEN core courses and nine electives are offered online. Foundation courses are only offered as traditional on campus classes. These courses must be taken either at UHCL or at another university before entry into the SWEN distance option. For more information about the software engineering degree and the distance option see <http://sce.uhcl.edu/softwareengineering>.

SOFTWARE ENGINEERING CERTIFICATE

The admission requirements for the certificate program are as follows: an undergraduate degree in Computer Science, Computer Engineering or Software Engineering, and an undergraduate GPA of 3.0. (The GRE is not required for the certificate since the certificate program is considered a non-degree seeking program). A student pursuing the certificate could possibly transfer the certificate courses to the SWEN degree after completion of the certificate. To do this the student must take the GRE, apply and be accepted to the SWEN program. The certificate cannot be pursued at the same time as the SWEN degree since students pursuing a certificate are considered non-degree seeking and therefore cannot be enrolled in a degree seeking program at the same time.

The Software Engineering certificate is designed to prepare students to address important aspects of software development including: developing the student's ability to communicate ideas; develop and manage software products; and to understand the complexities of building quality into a software product. To earn the certificate the 4-course set below must be completed within a 4 year time limit.

Certificate - Software Engineering (4 courses)

SWEN 5130	Requirements Engineering
SWEN 5232	Software Construction
SWEN 5234 or	Software Engineering Processes or
SWEN 5132	Design Patterns
SWEN 5432	Software Engineering Life Cycle

SYSTEMS ENGINEERING

The graduate plan in Systems Engineering leads to a master of science (MS) degree. The plan is designed to prepare engineers who are knowledgeable in interdisciplinary systems engineering approaches and engineering management and who therefore have the full range of concurrent engineering concepts and skills needed to specify, implement and support complete systems. Such knowledge is particularly important in the evolution of systems that are critical to achieving the mission of an organization and to sustaining the safety of life, health, property and the environment. Such systems are vital to many organizations that are served by UHCL such as: aerospace, biomedical, chemical, energy, manufacturing and others. The plan consists of formal courses, laboratory work and research conducted under the guidance of a faculty advisor. Candidates can tailor their plan of study to emphasize systems engineering analysis or systems engineering management. The Web site for the Systems Engineering program is <http://sce.uhcl.edu/seng>

Basic Preparation

The candidates should have a bachelor's degree and be approved by the graduate admissions committee to ensure that the appropriate background knowledge base is present. This background must include, at a minimum:

CSCI 3133	Programming with C	3 hours
MATH 3334	Prob. and Statistics for Scientists and Engineers	3 hours
MATH 4131	Ordinary Differential Equations and Apps	3 hours

Candidates who do not have the required or equivalent preparation are required to take the appropriate courses before enrolling in certain graduate career courses in SENG, SWEN, CSCI and CENG. The committee recommends that candidates take CENG 5131 Engineering Applications as a preparation elective.

Core Requirements (21 Hours)

SENG 5130	Systems Engineering Processes	3 hours
SENG 5230	Systems Engineering Economics	3 hours
SENG 5231	Concurrent Engineering	3 hours
SENG 5232	Engineering Specialty Integration	3 hours
SENG 5233	Systems Engineering Analysis & Modeling	3 hours
SENG 5330	Risk Management	3 hours
SWEN 5230	Software Project Management	3 hours

Elective Options

SENG 5332	Decision Analysis for Systems Engineering	3 hours
SENG 5334	Human Factors Engineering	3 hours
SENG 5532	Adv. Decision Analysis for Systems Eng.	3 hours
MGMT 5636	Management of Technology	3 hours
MGMT 5638	Managing Technical and Professional People	3 hours
INDH 5335	Ergonomic Methods and Analysis Techniques	3 hours
INDH 6332	Safety Engineering	3 hours

These candidates may also choose elective options from the CENG, SWEN or EMGT engineering programs.

Elective Hours

Thesis Option (6 hours of thesis + 9 hours of electives)

SENG 6939	Master's Thesis Research	6 hours
Electives in engineering, science and mathematics approved by the student's advisor		9 hours

Capstone Option (3 hours of capstone + 12 hours of electives)

SENG 6837	Systems Engineering Capstone Project	3 hours
Electives in engineering, science and mathematics approved by the student's advisor		12 hours

SYSTEMS ENGINEERING CERTIFICATE

Students may already have a Masters degree in a related field and would benefit from a four course set in Systems Engineering basics that would help them advance in their professional career. The candidate could, after receiving a SENG certificate, apply these four courses toward the completion of the master of science degree. The candidate choosing to earn a certificate in Systems Engineering will be required to complete four courses with a 3.0 grade point average or better, based on a 4.0 system. The candidate will be given the option to pick from the following core courses they find most useful to their application:

The Systems Engineering Basics four, three hour courses are:

SENG 5130	Systems Engineering Processes	3 hours
SENG 5203	Systems Engineering Economics	3 hours
SENG 5330	Risk Management	3 hours

SENG 5332	Decision Analysis for Systems Engineering	3 hours
SENG 5231	Concurrent Engineering	3 hours
SENG 5233	Systems Engineering Analysis & Modeling	3 hours
SENG 5334	Human Factors Engineering	3 hours
INDH 5335	Ergonomic Methods and Analysis Techniques	3 hours
INDH 6332	Safety Engineering	3 hours

DIVISION OF NATURAL SCIENCES

BIOLOGICAL SCIENCES

The graduate plan in Biological Sciences leads to the master of science (MS) degree. Applicants for candidacy should have a bachelor's degree in Biology, although applicants with other degrees may apply if their degrees or preparation include a significant number of plan core courses in the Biological Sciences, as well as appropriate chemistry, physics and mathematics courses.

Students should have completed the basic requirements for the bachelor of science degree in Biological Sciences at UHCL or the following courses (including prerequisites or equivalents) before applying for admission:

BIOL 3431	Genetics
BIOL 4431	Biochemistry
MATH 3038	Computation Statistics

Students should have completed one of the following courses or its equivalent:

BIOL 4434	Comparative Animal Physiology
BIOL 4435	Human Physiology
BIOL 3134	Plant Physiology

Students should also have completed coursework in at least two of the following areas:

BIOL 3231	Microbiology
BIOL 4131	Ecology
BIOL 4437	Cellular Physiology
BIOL 4531	Molecular Biology

A maximum of six credit hours of the 4000 level courses listed above, taken as foundation required for admission, may be applied toward the MS degree.

As a condition of admittance to the graduate program, students who do not meet School GRE and/or GPA standards will be required to meet additional performance criteria, such as past performance in critical courses, withdrawal and drop history, letters of recommendation, personal knowledge of past performance, improvement on repeated courses, work and/or life experiences and individual faculty support as a mentor in the research laboratory.

All graduate students in the Biological Sciences program must complete a Candidate Plan of Study (CPS) with their assigned faculty advisor before they complete 9 hours of graduate credit. Courses completed past the initial 9 hours that are not on the approved CPS may not be counted toward the degree.

The MS in Biological Science requires 36 hours of coursework in one of four Specialization Areas, of which 24 hours must be in BIOL courses. Students enrolling in

the non-thesis option must complete 33 hours of coursework (which may include independent study research) and the capstone course, BIOL 6838 Research Project and Seminar. BIOL 6838 must be taken in the last 12 hours. Alternately, students may elect to pursue the thesis option, which requires 27 hours of coursework, plus BIOL 5530 Research Methods (3 hours) and BIOL 6939 Master's Thesis (6 hours). Students pursuing the master's thesis option are advised to consult with their faculty advisor and take BIOL 5530 early in their studies as preparation for beginning the thesis.

INFORMATION ON THE CERTIFICATE OPTION IN BIOTECHNOLOGY CAN BE FOUND IN THE UNDERGRADUATE CATALOG.

Master's Degree in Biological Science with a Pre-Health Specialization (36 Hours)

The masters degree in Biological Science with a pre-health focus consists of coursework that is intended to prepare the student for medical/dental/physician assistant/allied health school curricula. The pre-health specialization coursework includes 27 hours of core courses, 3 hours of capstone course (BIOL 6838), and 6 hours of graduate electives. A thesis option is also available.

Core Coursework (27 hours):

BIOL 4432	Biochemistry II
BIOL 5131	Membrane Biology
BIOL 5132	Cell Signaling
BIOL 5332	Toxicology
BIOL 5435	Advanced Immunology
BIOL 5635	Neuroscience
BIOL 5734	Oncogenes
BIOL 5736	Bioethics
BIOL 5436 or	Physiological Basis of Disease
BIOL 5136	Physiology of Human Aging

Designated electives (6 HOURS):

BIOL 4332	Histology
BIOL 4437	Cellular Physiology
BIOL 4438	Developmental Biology
BIOL 4531	Molecular Biology
BIOL 4731	Cancer Biology
BIOL 5433	Enzymology
BIOL 5939	Independent Study in Biological Science

UHCL Pre-Health Advisory Committee Web page: <http://www.uhcl.edu/sce/HPAC>

Master's Degree in Biological Science with a Cell/Molecular Specialization (36 Hours)

The master's degree in Biology with a cell/molecular biology focus consists of coursework that is intended to prepare the student for a career in biomedical research. The cell/molecular specialization includes coursework selected from the list below, in consultation with the faculty advisor, and a 3 hour capstone course (BIOL 6838). A thesis option is also available.

Core Coursework (Select 33 Hours):

BIOL 5333	Industrial Microbiology
BIOL 5433	Enzymology
BIOL 5435	Advanced Immunology
BIOL 5632	Bioenergetics
BIOL 5634	Apoptosis
BIOL 5731	Advanced Cancer Biology
BIOL 5732	Advances in Molecular Biology
BIOL 5734	Oncogenes
BIOL 5737	Vectors
BIOL 5738	Gene Therapy
BIOL 5931	Topics Courses
BIOL 5939	Independent Study in Biological Science
BIOL 5x3x	Approved Elective Course
BIOT 5031	Applied Biotechnology
BIOT 5021	Methods of Biotechnology
BIOT 5121	Advanced Methods in Biotechnology I
BIOT 5122	Advanced Methods in Biotechnology II

Master's Degree in Biological Science with a Ecology/Microbiology/Aquatic & Marine Biology Specialization (36 Hours)

The master's degree in Biological Science with an ecology/microbiology/aquatic & marine biology focus consists of coursework that is intended to prepare the student for a career in environmental biology research, consulting, or in the government/regulatory sector. The ecology/microbiology/aquatic & marine biology specialization includes coursework selected from the list below, in consultation with the faculty advisor, and a 3 hour capstone course (BIOL 6838). A thesis option is also available. Core Coursework (Select 33 Hours):

BIOL 5235 & BIOL 5215	Ichthyology and Lab for Ichthyology
BIOL 5233	Ecotoxicology
BIOL 5234	Population and Community Dynamics
BIOL 5332	Toxicology and Environmental Health
BIOL 5333	Industrial Microbiology
BIOL 5531	Aquatic Toxicology Methods
BIOL 5532	Estuarine Ecology
BIOL 5533	Ecological Methods
BIOL 5534	Conservation Biology
BIOL 5535	Neotropical Rainforest Ecology
BIOL 5931	Topics Courses
BIOL 5939	Independent Study in Biological Science
BIOL 5x3x	Approved Elective Course
GEOL 5333	Wetlands

Master's Degree in Biological Science with a Plant Biology Specialization (36 Hours)

The master's degree in Biological Science with a plant biology focus consists of coursework that is intended to prepare the student for a career in plant biochemistry and genetics, nutritional biochemistry and biomedical research. The plant biology specialization includes coursework selected from the list below in consultation with

the faculty advisor, and a 3 hour capstone course (BIOL 6838). A thesis option is also available.

Core Coursework (Select 33 Hours):

BIOL 5131	Membrane Biology
BIOL 5132	Cell Signalling
BIOL 5433	Enzymology
BIOT 5x3x	Plant Genomic Analysis
BIOL 5632	Bioenergetics
BIOL 5533	Ecological Methods
BIOL 5534	Conservation Biology
BIOL 5732	Advances in Molecular Biology
BIOL 5632	Bioenergetics
BIOL 5931	Topics Courses
BIOL 5x3x	Approved Elective Course
BIOL 5939	Independent Study in Biological Science
BIOT 5031	Applied Biotechnology
BIOT 5x3x	Approved Elective Course

BIOTECHNOLOGY

The graduate plan in Biotechnology leads to the master of science (M.S.) degree. In addition to satisfying admission requirements of the University and SCE (e.g., transcripts and GRE scores), applicants for the M.S. in the Biotechnology program should have completed a bachelor's degree in biology or a related discipline. All applicants must submit two letters of recommendation directed to the chairperson of the admissions committee for the M.S. in Biotechnology. Upon acceptance to the M.S. in Biotechnology, a student must identify the concentration to be pursued.

Applicants should have completed the appropriate foundation course work. Applicants missing certain required courses in their undergraduate preparation, but who meet the minimum university standards for admission, may be admitted on condition that they will complete specific undergraduate foundation courses for full admission to the program. If additional coursework is required to meet prerequisites for courses in a concentration area, students may enroll in these after admittance to the program.

Courses listed as foundation courses on the CPS for either the core or concentration area will not apply to the credit hours required for the M.S. degree. Students requiring significant prerequisite or foundation coursework should anticipate an extended time commitment for earning the graduate degree.

Basic Prerequisite Requirements

Applicants must have completed the equivalent of the basic requirements for the Bachelor of Science degree in Biological Sciences, or the following courses or equivalents before applying for admission:

BIOL 3431	Genetics
BIOL 4431	Biochemistry I
BIOL 4434, 4435 or 3134	Animal, Human or Plant Physiology
BIOL 4437	Cellular Physiology
BIOL 4531	Molecular Biology
MATH 3038	Computational Statistics

In all cases for basic prerequisite requirements, evidence of completion of the course with a grade of "C" or better is required.

Concentration Prerequisite Requirements

The following additional prerequisite courses are required for the specific concentration chosen by the student:

Molecular Biotechnology Concentration (UHCL course or equivalent)

Although laboratory courses in Molecular Biology and Tissue Culture will greatly assist students, these skills will be reviewed and enhanced in BIOT 5021. (Methods of Biotechnology)

Bioinformatics / Computational Biology Concentration (UHCL course or equivalent)

CSCI 3133	Programming with C
CSCI 3134	Software Development with Java
CSCI 3233	Object-Oriented Design and Programming
CSCI 3333	Data Structures
CSCI 3532	Advanced Data Structures and Algorithms
CSCI 4333	Design of Database Systems

Biotechnology Management and Marketing Concentration (UHCL course or equivalent)

**MGMT 3031	Management Theory and Practice
**MGMT 4534	Organizational Behavior
**MKTG 3031	Marketing: Creating Value for Customers

**If students have not taken MGMT 3031, MGMT 4534, and MKTG 3031 they may take MGMT 5032 and MKTG 5031 to fulfill the foundation requirements of this concentration. A maximum of 6 credit hours of the 4000-level courses listed above may be applied toward the M.S. degree.

In all cases for concentration requirements, evidence of completion of the course with a grade of "C" or better is required. A maximum of six credit hours of the 4000 level courses listed in the Basic and Concentration Prerequisites may be applied toward the M.S. degree.

Core Requirements for the M.S. Degree

The M.S. degree requires the completion of 36 hours. All core requirements and Biotechnology electives must be completed with a grade of "C" or better but GPA must be ≥ 3.0 . Students must take BIOT 5021 before taking BIOT 5121 or BIOT 5122. Although the M.S. in Biotechnology does not require an internship, field experience or thesis, these options are available and students are encouraged to participate in them.

Biotechnology Core Curriculum (27 hours)

Required courses (18 hours):

BIOT 5031	Applied Biotechnology	3 hours
BIOT 5021	Methods of Biotechnology	2 hours
BIOT 5121	Advanced Methods in Biotechnology I	2 hours
BIOT 5122	Advanced Methods in Biotechnology II	2 hours
BIOT 5733	Bioinformatics	3 hours
BIOT 5736	Bioethics	3 hours
STAT 5135	Applied Statistical Methods	3 hours

Extended Coursework Option (9 hours):

Under the Extended Coursework Option, a minimum of 27 hours of Biotechnology core curriculum (including 6 hours of approved electives from any of the three concentrations and 3 hours of BIOT 6838 Research Project and Seminar), plus 9 hours of electives within their specific concentration area must be completed.

Thesis Option (9 hours)

Under the Thesis Option, a minimum of 27 hours of Biotechnology core curriculum (including 3 hours of BIOT 5530 Research Methods in Biotechnology and 6 hours of BIOT 6939 Master's Thesis Research), plus 9 hours of electives within their specific concentration area must be completed (Note: an additional 3 credit hours of BIOT 6939 may be used as a plan elective). Graduate students who select the master's thesis option are advised to take BIOT 5530, Research Methods in Biotechnology, early in their studies as preparation for beginning the thesis.

Concentration Areas and Electives in the Biotechnology Program**Molecular Biotechnology Concentration (9-15 Hours)**

BIOL 5131	Membrane Biology
BIOT 5331	Stem Cell Biotechnology
BIOT 5431	Plant Genomic Analysis
BIOT 5433	Marine Biotechnology Graduate Seminar
BIOT 5535	Environmental Biotechnology
BIOL 5132	Cell Signaling
BIOL 5332	Toxicology
BIOL 5333	Industrial Microbiology
BIOL 5433	Enzymology
BIOL 5435	Advanced Immunology
BIOL 5634	Apoptosis
BIOL 5635	Neuroscience
BIOL 5732	Advances in Molecular Biology
BIOL 5734	Oncogenes
BIOL 5737	Molecular Vectors
BIOL 5738	Gene Therapy
BIOL 5833	Proteomics
BIOT 5915	Cooperative Education Work Term
BIOT 5931	Research Topics in Biotechnology

Bioinformatics / Computational Biology Concentration (9-15 Hours)

BIOL 5737	Molecular Vectors
BIOL 5833	Proteomics
BIOT 5915	Cooperative Education Work Term
BIOT 5931	Research Topics in Biotechnology
CSCI 5333	Database Management Systems
CSCI 5433	Object-Oriented Database Systems
CSCI 5530	Pattern Classification
CSCI 5532	Pattern Recognition and Image Processing
CSCI 5633	Web Database Development
CSCI 5733	XML Application Development
CSCI 5833	Data Mining: Tools and Techniques

Biotechnology Management and Marketing Concentration (9-15 Hours)

BAPA 5131	The Global Environment of Business
BIOT 5931	Research Topics in Biotechnology
INDH 6135	Radiation Protection
MGMT 5133	Teamwork & Leadership Skills: Theory in Practice
MGMT 5636	Management of Technology
MGMT 5638	Managing Technical and Professional People
MGMT 6332	International Management
MKTG 5332	Executive Decisions In Marketing
MKTG 5532	International Marketing Strategy

CHEMISTRY

The plan in Chemistry leads to the master of science (MS) degree. Graduate students enrolled in the Chemistry plan may choose from high quality content courses in all of the traditional areas of Organic, Analytical, Physical and Inorganic Chemistry, as well as in the closely related fields of Biochemistry and Environmental Chemistry.

Moreover, students are encouraged to further enhance their studies by undertaking research with one of the Chemistry plan's faculty in any of these areas. In regard to such research, it should be noted that during the past nine years the Chemistry plan has received endowments from the Welch Foundation in the form of a Chemistry Departmental Research Grant. Those funds have been expended in support of the research efforts carried out by the plan's faculty during the training of students. This grant has just been renewed through the year 2011. The Chemistry plan also has an endowment from the Zeon Chemicals Company.

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. Further information on the Chemistry plan is available from the Chair of Chemistry.

Basic Requirements

Students seeking the MS degree in Chemistry must have completed, at minimum, the following courses with grades of "C-" or better:

General (Freshman) Chemistry I & II with laboratory	8 hours
Organic Chemistry I & II with laboratory	8 hours
Analytical Chemistry I & II with laboratory	8 hours
Physical Chemistry I & II with laboratory	8 hours
Inorganic Chemistry with laboratory	5 hours

Most of these course requirements may be met at UHCL prior to entering the graduate Chemistry plan by completing the following courses with grades of "C-" or better: CHEM 3233, CHEM 3234, CHEM 3224; CHEM 4635, CHEM 4636, CHEM 4622; CHEM 4231, CHEM 4232, CHEM 4222; CHEM 4335.

None of these courses is normally accepted for degree credit toward the hours in the graduate plan.

Core Requirements

Students must successfully complete a minimum of 18 hours of graduate career chemistry courses, 12 hours of which must be taken at UHCL. All core requirements

and chemistry electives must be completed with a grade of "B-" or better. A minimum of three hours must come from each of the following:

Organic Chemistry (CHEM 5134, CHEM 5336, CHEM 5337, CHEM 5638)

Analytical Chemistry (CHEM 5133, CHEM 5636)

Physical Chemistry (CHEM 5235, CHEM 5637, CHEM 5639)

Inorganic Chemistry (CHEM 5335, CHEM 5336)

Graduate Seminar (CHEM 6731)

One Specialization Area is available to students pursuing the MS degree in Chemistry. Students in the Specialization Area must complete the required courses with grades of "B-" or better.

Required courses for Specialization in Astrobiochemistry

Astrobiochemistry I (CHEM 5633) 3 hours

Astrobiochemistry II (CHEM 5634) 3 hours

Extended Course Work Option

Under the extended course work option, a minimum of 30 hours of formal course work (including three hours CHEM 6731 Graduate Seminar) must be completed. In addition, students must choose an adviser and complete a total of six hours credit in the two Research Project and Seminar courses (CHEM 6837 and CHEM 6838).

Thesis Option

Under the thesis option, a minimum of 24 hours of formal course work (including three hours of CHEM 6731 Graduate Seminar) must be completed. In addition, students must complete a minimum of six hours of CHEM 6939, Master's Thesis Research. A maximum of nine hours of CHEM 6939 can be applied toward graduation requirements. Remaining course work for a total of 36 hours may come from CHEM 6838 Research Project and Seminar or additional formal courses.

ENVIRONMENTAL SCIENCE

The graduate plan in Environmental Science leads to the master of science (MS) degree. The plan seeks, through an interdisciplinary approach, to prepare students for opportunities in government and the private sector. Graduates of the plan may also be prepared to pursue further academic training in environmental sciences and occupational health. Students must specialize in one of the following areas: Environmental Biology, Environmental Chemistry, Environmental Geology, Industrial Hygiene or Safety. A growing number of courses are available online and an ENSC (MS) online degree option will be available fall 2011.

Basic Requirements

Students seeking a master's degree must have course work preparation appropriate to their area of specialization. At least 34 hours of natural science and 6 hours of mathematics are required prior to admission. Candidates should have a "B" average (GPA: 3.0) on the last 60 hours of credit. GRE scores are required by all students applying for the graduate program. Scores will be evaluated by the school's admissions committee.

Students should submit a written statement to the Office of the Dean of Science and Computer Engineering specifying their educational goals and objectives as well as their intended areas of specialization, i.e., Environmental Biology, Environmental Chemistry, Environmental Geology, Industrial Hygiene or Safety. Applicants are also encouraged to submit letter(s) of recommendation as supporting documents. Basic requirement courses do not count toward the degree. These courses do, however, count toward the total hours required above. The following must be completed prior to admission into the graduate plan:

General Chemistry	2 semesters
General Physics	2 semesters
Calculus I	1 semester

The following must be completed prior to or within the first year of study:

Organic Chemistry	1 semester
Statistics	1 semester

The master's degree requires completion of a minimum of 36 hours. The core consists of STAT 5135, ENSC 5530, and ENSC 6731 or ENSC 6838 or ENSC 6939, which must be taken in the order listed. Thesis and research project course options are available and are described below.

Thesis Option (36 Hours)

ENSC 5530	Research Methods: Environmental Science	3 hours
ENSC 6939	Master's Thesis: Environmental Science	6 hours
STAT 5135	Applied Statistical Methods	3 hours
Designated electives (maximum of 6 hours of 4000 level credit):		24 hours

Research Project Course Option (36 Hours)

ENSC 5530	Research Methods: Environmental Science	3 hours
ENSC 6838	Research Project	3 hours
	Or ENSC 6731 Graduate Seminar	
STAT 5135	Applied Statistical Methods	3 hours
Designated electives (maximum of 6 hours of 4000 level credit)		27 hours

Electives are selected in consultation with the faculty advisor and must include at least one course from three of the following areas: biology, chemistry, geology or industrial hygiene and safety. A maximum of six hours of environmental management courses may be included.

All graduate students are required to produce a major paper and present a public seminar. Prior to enrolling in ENSC 6731 or ENSC 6838, students must have a faculty advisor and an approved research topic.

Students pursuing the research project option may be advised to complete hours in independent study or internship in addition to ENSC 6838. Before enrolling in thesis, students must have a faculty thesis advisor and an approved research proposal.

Designated electives or their equivalents for the Environmental Biology sub-plan:

Selected on consultation with advisor (minimum 15 hours)

BIOL 5233	Ecotoxicology	3 hours
BIOL 5234	Population and Community Dynamics	3 hours
BIOL 5235/ BIOL 5215	Ichthyology/ Lab	3 hours
BIOL 5332	Toxicology and Environmental Health	3 hours
BIOL 5333	Industrial Microbiology	3 hours
BIOL 5531	Aquatic Toxicity Testing	3 hours
BIOL 5532	Estuarine Ecology	3 hours
BIOL 5533	Ecological Methods	3 hours
BIOL 5534	Conservation Biology	3 hours
BIOL 5535	Tropical Rainforest Ecology	3 hours
BIOL 5931	Selected topics (must be approved prior to registering)	3 hours
ENSC 5931	Selected topics (must be approved prior to registering)	3 hours
ENSC 5939	Independent Study	3 hours

Cross-discipline (minimum of 3 hours from each of two rubrics, maximum of 12 hours from all):

CHEM 5431	Contaminant Fate and Transport	3 hours
CHEM 5535	Sampling and Analysis of Environmental Contaminants	3 hours
CHEM 5731	Environmental Organic Chemistry	3 hours
GEOL 5331	Environmental Geology	3 hours
GEOL 5333	Wetlands	3 hours
GEOL 5532	Hydrology of Surface Water	3 hours
GEOL 5631	Remote Sensing	3 hours
GEOL 5632	Hazardous Materials in the Geologic Environment	3 hours
GEOL 5931	Selected topics (must be approved prior to registration)	3 hours
INDH 5333	Air Pollution	3 hours
ENVR 5332	Environmental Law	3 hours
ENVR 6132	Environmental Impact Assessment	3 hours

If Research Project instead of Thesis is chosen, then the student will need to have one more course to be approved by the faculty advisor.

Designated electives or their equivalents for the Environmental Chemistry sub-plan:

Selected on consultation with advisor (minimum 15 hours)

CHEM 4521	Lab for Environmental Analysis	2 hours
CHEM 4536/GEOL 4536	Soil & Groundwater Remediation	3 hours
CHEM 5431	Contaminant Fate and Transport	3 hours
CHEM 5731	Environmental Organic Chemistry	3 hours
CHEM 5535	Sampling and Analysis of Environmental Contaminants	3 hours
CHEM 5631	Environmental Chemodynamics	3 hours
BIOT 5535	Environmental Biotechnology	3 hours
ENSC 5333	Fundamentals of Environmental Engineering	3 hours
ENSC 5939	Independent Study	3 hours

Cross-discipline (minimum of 3 hours from each of two rubrics, maximum of 12 hours from all):

CHEM 5133	Spectroscopic Identification of Organic Compounds	3 hours
BIOL 5233	Ecotoxicology	3 hours
BIOL 5332	Toxicology and Environmental Health	3 hours
BIOL 5333	Industrial Microbiology	3 hours
GEOL 5331	Advanced Environmental Geology	3 hours
GEOL 5532	Hydrology of Surface Water	3 hours
GEOL 5632	Hazardous Materials in the Geologic Environment	3 hours
INDH 5333	Air Pollution	3 hours
ENVR 5332	Environmental Law	3 hours
ENVR 6132	Environmental Impact Assessment	3 hours

If Research Project instead of Thesis is chosen, then the student will need to have one more course to be approved by the faculty advisor.

Designated electives or their equivalents for the Environmental Geology sub-plan:

GEOL 4233	Soils in the Environment	3 hours
GEOL 5531	Hydrology of Groundwater	3 hours
GEOL 5532	Hydrology of Surface Water	3 hours
GEOL 5632	Hazardous Materials in the Geologic Environment	3 hours
BIOL 5332	Toxicology and Environmental Health	3 hours
CHEM 5431	Contaminant Fate and Transport	3 hours
CHEM 5535	Sampling and Analysis of Environmental Contaminants	3 hours

If Research Project instead of Thesis is chosen, then the student will need to have one more course to be approved by the faculty advisor.

Designated electives or their equivalents for the Industrial Hygiene sub-plan:

INDH 5131	Control of Occupational Hazards	3 hours
INDH 5333	Air Pollution	3 hours
INDH 5335	Ergonomic Methods & Analysis Techniques	3 hours
INDH 6135	Radiation Protection	3 hours
INDH 6232	Analytical Methods for Hazard Evaluation	3 hours
INDH 6332	Safety Engineering	3 hours
BIOL 5332	Toxicology and Environmental Health	3 hours
CHEM/GEOL at the 4000, 5000, or 6000 (if applicable):		
to be arranged with advisor		3 hours

If Research Project instead of Thesis is chosen, then the student will need to have one more course to be approved by the faculty advisor.

Designated electives or their equivalents for the Safety sub-plan:

INDH 5xxx	System Safety & Accident Investigation	3 hours
INDH 5xxx	Const. & General Industry Safety	3 hours
INDH 5131	Control of Occupational Hazards	3 hours
INDH 5335	Ergonomic Methods & Analysis Techniques	3 hours
INDH 6232	Analytical Methods for Hazard Evaluation	3 hours
INDH 6332	Safety Engineering	3 hours
BIOL/CHEM/or GEOL at the 4000, 5000, 6000 levels (if applicable):		
to be arranged with advisor		3 hours

If Research Project rather than Thesis is chosen, then the student will need to have one more course in INDH to be approved by the faculty advisor.

Environmental Science (MS) Online Option

Research Project Course Option (36 Hours)

ENSC 5530	Research Methods: Environmental Science	3 hours
ENSC 6838	Research Project	3 hours
	Or ENSC 6731 Graduate Seminar	

STAT 5135	Applied Statistical Methods	3 hours
Designated electives (maximum of 6 hours of 4000 level credit)		27 hours

All graduate students are required to produce a major paper and present an online public seminar. Prior to enrolling in ENSC 5530, students must have a faculty advisor and an approved research topic. Students pursuing the research project or thesis option may be advised to complete hours in independent study or internship.

For students with project option, students will enroll in ENSC 6838 after the completion of ENSC 5530. Prior to enrolling in ENSC 6838, students must obtain faculty advisor's approval and must have made significant progress towards the completion of the research project.

For students with thesis option, students will enroll in ENSC 6939 after the completion of ENSC 5530. Students with thesis option must conduct an oral thesis defense before his/her thesis committee members.

Electives of Online Courses

Electives are selected in consultation with the faculty advisor and must include at least one course from three of the following areas: biology, chemistry, geology or industrial hygiene and safety. A maximum of six hours of environmental management courses may be included.

BIOL 5233	Ecotoxicology
BIOL 5332	Toxicology and Environmental Health
BIOL 5x3x*	Fish and Wildlife Management
BIOL 5534	Conservation Biology
BIOL 5233	Ecotoxicology
CHEM 5431	Contaminant Fate and Transport
CHEM 5731*	Environmental Organic Chemistry
CHEM 5535	Sampling & Analysis of Environmental Contaminants
ENVR 5332	Environmental Law
ENVR 6133	Environmental Risk Management
GEOL 5331	Environmental Geology
GEOL 5536*	Soil and Groundwater Remediation
GEOL 5531	Hydrology of Groundwater
INDH 5131	Control of Occupational and Environmental Hazards
INDH 5333	Air Pollution
INDH 5334	Human Factors Engineering
INDH 5335	Ergonomic Methods and Analysis Techniques
INDH 5x3x*	Environmental Health and Safety

PHYSICS

The graduate plan in Physics leads to the master of science (MS) degree at UHCL. The goal of this program is to prepare students for Ph.D. level work and advanced

research in Physics and Astronomy. This program also serves to expand the knowledge base of practicing engineers. Students in this program gain better problem-solving abilities as well as increased knowledge of several aspects of Physics and Astronomy. The physics program provides students with a deeper understanding of the essential science used in many of the engineering disciplines and in the space industry.

Basic Preparation

Applicants for candidacy should have a bachelor of science (BS) degree in one of the physical sciences, mathematics or engineering disciplines. Applicants with other degrees may also apply if they meet the requirements listed below. Equivalent courses or appropriate substitutions will be determined in consultation with a faculty advisor. If background deficiencies exist, students may be required to take courses that will not apply toward the graduate degree.

Students should take the following courses (or equivalents) in preparation for the program (Note PHYS 4131 and PHYS 4132 satisfy many of these requirements):

University Physics I & II with Laboratory	8 hours
Modern Physics	3 hours
Calculus I, II	8 hours
Calculus III	3 hours
Differential Equations	3 hours
Complex Variables	3 hours
Linear Algebra	3 hours
Probability and Statistics	3 hours
Principles of Electromagnetism	3 hours
Principles of Quantum Mechanics	3 hours
Thermodynamics & Fluid Mechanics	3 hours

Core Requirements

The following 15 hours of graduate physics courses are required for both the thesis and extended course work options.

PHYS 5331 or equivalent	Electrodynamics	3 hours
PHYS 5431 or equivalent	Classical Mechanics	3 hours
PHYS 5531 or equivalent	Mathematical Methods in Physics I	3 hours
PHYS 5631 or equivalent	Quantum Mechanics I	3 hours
PHYS 5731 or equivalent	Statistical Mechanics and Thermodynamics	3 hours

Advanced Electives

Advanced SCE courses that meet the needs of students' professional goals may be selected in consultation with a faculty advisor.

Thesis Option

Under the thesis option, a minimum of 24 hours of formal course work must be completed. In addition, students must complete a minimum of 6 hours of PHYS 6939; Master's Thesis Research. A maximum of 12 hours of PHYS 6939 can be applied toward graduation requirements. Remaining course work for a total of 36 hours may come from additional formal courses.

Non-Thesis Option

Under the non-thesis option, a minimum of 30 hours of formal course work must be completed. In addition, students must choose an advisor and complete 3 credit hours of Independent Study Research (PHYS 5739 or PHYS 5939) and 3 hours in the Research Project and Seminar Course (PHYS 6838). Students completing the sub-plan in Technical Management should complete either PHYS 5739 or PHYS 6838 as a capstone.

Sub-plan in Technical Management

A good technical manager needs both an advanced broad-based technical background and insight into how to lead a team of people from different technical disciplines. Because physics is the scientific basis of all engineering, it can satisfy much of the broad-based technical requirement for a degree training technical managers. The physics core is complemented by a combination of systems engineering and management courses in order to create a plan that provides both the technical background and the leadership training. This results in a unique new approach to training technical managers. Please note that this sub-plan can only be completed with the non-thesis option.

Systems Engineering (at least two courses): 6 hours

SENG 5230	Systems Engineering Economics	3 hours
SENG 5231	Concurrent Engineering	3 hours
SENG 5330	Risk Management	3 hours
SENG 5332	Decision Analysis for Systems Engineering	3 hours

Management (at least two courses): 6 hours

MGMT 5032	Human Behavior in Organizations	3 hours
MGMT 5133	Teamwork & Leadership Skills: Theory in Practice	3 hours
MGMT 5638	Managing Technical & Professional People	3 hours

Approved Electives: 6 hours

Approved courses in SCE (All ASTR, EMGT, PHYS and SENG courses qualify) and any approved course in the School of Business.

Collaborative UHCL/UH Physics Ph.D. Program

The first program of its kind, the Collaborative UHCL\UH Physics Ph.D. Program establishes a partnership between the master's degree program at UHCL and the Ph.D. program at UH. Select faculty at UH and UHCL hold joint appointments which allow them to ensure the smooth transition of their students from the M.S. to the Ph.D. program. In addition, a Joint Committee helps advise students on their transition.

Six UHCL Physics courses PHYS 5331/5311: Electrodynamics, PHYS 5431/5411: Classical Mechanics, PHYS 5531/5511: Mathematical Methods in Physics I, PHYS 5631/5611 and 5632/5612: Quantum Mechanics I and II, and PHYS 5731/5711: Statistical Mechanics and Thermodynamics will count towards Ph.D. candidacy at UH. A candidate must earn a grade of B or better in the class and on the final exam. Students exploring this option must be accepted into the Graduate Physics program at UH for core courses to count toward candidacy. Therefore interested students should apply for

admissions to both the UHCL and UH physics programs before signing up for PH.D. candidacy courses. Students accepted into the collaborative Ph.D. program will be subject to the same requirements as other Ph.D. candidates in the UH Physics program. They will complete their Ph.D. Thesis under the advisement of a UH and UHCL faculty committee. More information on the program can be found at <http://www.uhcl.edu/sce/collaborative>.

Physics Candidacy Certificate

Students completing the candidacy requirements for the Collaborative UHCL/UH Physics Ph.D. Program are eligible to receive a physics candidacy certificate. This certificate can be awarded to students independently of the Physics Master's Degree. A student pursuing a certificate has the option of switching to the Physics MS degree program at anytime during his/her enrollment in the certificate program and can apply all physics coursework taken towards the certificate to the MS degree. Qualified students pursuing the Physics MS degree have the option of applying for the certificate once the candidacy requirements are satisfied. This certificate does not imply any acceptance into the UH PH.D. Program or the successful completion of all Ph.D. candidacy requirements and is used primarily at UHCL to monitor the progress of students working towards the Physics Ph.D. through our Collaborative Physics Ph.D. Program

SCHOOL OF SCIENCE AND COMPUTER ENGINEERING COURSES

ASTRONOMY AND SPACE SCIENCE COURSES (SEE ALSO PHYSICS)

Please note: All ASTR graduate courses (5000 or 6000 level) assume the student has a solid background in physics and mathematics, at least, through differential equations.

ASTR 5131: Graduate Astronomy

Quantitative introduction to physics of the stars, interstellar medium, cosmochemistry, the Galaxy, and Universe as determined from a variety of astronomical observations and models.

ASTR 5231: Stellar Structure and Evolution

Principal concepts, equations, methods and results of the theories of stellar atmosphere and interiors and their relation to observations.

Prerequisites: Core Physics courses or instructor approval.

ASTR 5331: Remote Sensing Instrumentation and Techniques

Fundamentals of remote sensing; radiative quantities; radiative transfer theory and applications; interaction mechanisms, applications to the development of uses for remote sensing systems from spacecraft and aircraft.

Prerequisite: Core physics courses or instructor approval.

ASTR 5431: Fundamentals of Astrodynamics

Development of the two-body problem and universal formulation of all types of orbits, initial value problems, two-point boundary value problems, coordinate transformations and trajectory perturbations.

Prerequisite: Core physics courses or instructor approval.

ASTR 5432: Perturbation Methods in Astrodynamics

A study of the methods of the solution to the perturbed two-body problem with applications to the motion of satellites.

Prerequisite: ASTR 5431 or instructor approval.

ASTR 5531: Planetary Science

Planetary dynamics, planetary interiors, atmospheres and surfaces; magnetism; models of solar system origin.

Prerequisite: Physical geology or equivalent.

ASTR 5631: Astrobiophysics I

Origin of the universe, stars and planetary systems. Origin and evolution of Earth as a habitable planet and origin and evolution of life. Prerequisites: PHYS 4432, PHYS 4531, PHYS 5531.

ASTR 5632: Astrobiophysics II

The search for life in the universe, including possibilities for finding life on Mars and other solar system bodies and on extra-solar planets and the Search for Extra-Terrestrial Intelligence (SETI). Prerequisite: ASTR 5631.

ASTR 5931: Research Topics in Space Science

Identified by specific title each time course is offered.

ASTR 5939: Independent Study in Space Science

Prerequisites: Approval of instructor, chair and associate dean required.

BIOLOGY COURSES

*Pending Coordinating Board approval

BIOL 5131: Membrane Biology

Study of synthesis and function of cellular membranes.

Prerequisite: Biochemistry.

BIOL 5132: Cell Signaling

Detailed study of signal transduction in living cells. Concentration on current knowledge regarding the manner in which cells communicate with one another, integrate incoming signals and respond in appropriate manner.

Prerequisites: BIOL 4431 and 4437 or equivalent.

BIOL 5136: Physiology of Human Aging

Biological changes in human organ systems with advancing age; theoretical and empirical aspects of aging processes.

Prerequisite: Human physiology.

BIOL 5215: Laboratory for Ichthyology

Advanced laboratory course on identification, anatomy and ecology of fish. Fisheries methods also emphasized. Weekend or weekday field trips and collections required.
Corequisite: BIOL 5235.

BIOL 5233: Ecotoxicology

Study of environmental pollutants and effects on ecosystems.
Prerequisite: BIOL 4235 or BIOL 5332 or equivalent.

BIOL 5234: Population and Community Dynamics

Application of basic population modeling and analysis methods used in the management of animal populations. Emphasis placed on harvested populations and fisheries.
Prerequisites: Ecology and Genetics.

BIOL 5235: Ichthyology

Corequisite: BIOL 5215 Advanced study of biology, ecology and evolution of marine and freshwater fishes.

BIOL 5332: Toxicology and Environmental Health

Evaluation of the mechanisms of action, risks and effects of exposure to toxic substances.
Prerequisite: BIOL 4235 or BIOL 4431 or BIOL 4434 or BIOL 4435 or equivalent.

BIOL 5333: Industrial Microbiology

Microbial processes having economic interest to man; fermentation, deterioration, waste disposal: food spoilage and drug preparation.
Prerequisites: Microbiology and biochemistry.

BIOL 5336: Neuropsychology Practicum

Laboratory investigation of drug/brain/behavior relationships in the rat. Readings from primary research literature, laboratory experiments and research report.
Prerequisite: Permission of instructor.

BIOL 5432: Principles of Pharmacology

Emphasis on principles for evaluating the effects of drugs.
Prerequisite: BIOL 4431, BIOL 4434, or BIOL 4435.

BIOL 5433: Enzymology

Study of enzyme isolation, purification, assay and characterization. Emphasis on kinetics of enzyme catalyzed reactions and on the use of enzymes in medicine and industry.
Prerequisite: BIOL 4431 or equivalent.

BIOL 5434: Human Stress

Stressors and the characteristic physiological manifestations of stress in nervous and hormonal mechanisms.
Prerequisites: BIOL 4435, BIOL 4436 or equivalent.

BIOL 5435: Advanced Immunology

Course will allow students to explore published research that supports currently accepted mechanisms of the immune function. Students will be expected to correlate basic principles of the immune system to the advances in medicine and pathology.
Prerequisite: BIOL 4631 or equivalent.

BIOL 5436: Physiological Basis of Disease

The effects of diseases on normal physiologic functions and the physiologic basis of medical treatments for these diseases will be discussed.
Prerequisite: An introductory Human Physiology course or equivalent.

BIOL 5530: Research Methods in Biology

Students will develop a research proposal, which allows integrating knowledge and standard procedures in a chosen area of Biology. A written proposal and an oral presentation are required to complete the course.
Prerequisite: Graduate standing.

BIOL 5531: Aquatic Toxicity Testing

Theory of toxicity testing, statistical analysis procedures and laboratory practice in standard aquatic toxicity tests.
Prerequisite: BIOL 4235 or equivalent.

BIOL 5532: Estuarine Ecology

Study of physical, chemical and biological nature of estuarine ecosystems, Includes one or more weekend or weekday field trips and lab experiments.
Prerequisite: BIOL 4131.

BIOL 5533: Ecological Methods

Field methods for analysis of ecological systems. Field work and laboratory are required.

BIOL 5534: Conservation Biology

Analysis of evolutionary forces that shape biodiversity and the biological, sociopolitical and economic issues faced in the conservation of biodiversity.

Prerequisite: BIOL 3431, BIOL 4131.

BIOL 5535: Tropical Rainforest Ecology

Study of neotropical rain forests, including their physical, chemical and geological characteristics and plant /animal ecology. Students completing course qualify for discounted optional ecology study trip to the Amazon flooded forest areas of Brazil.

BIOL 5632: Bioenergetics

Mechanisms of ATP Synthesis and other aspects of biological energy transduction.

Prerequisite: BIOL 4431 or equivalent.

BIOL 5634: Apoptosis

Students in this course will study the stimuli and pathways involved in programmed cellular death.

Prerequisite: BIOL 4437.

BIOL 5635: Neuroscience

This course introduces basic and advanced concepts in neuroscience. The course covers a wide range of topics in this exciting field of science from the molecular level through the anatomical organization of sensory and motor systems.

Prerequisites: Anatomy, Physiology.

BIOL 5731: Advanced Cancer Biology

Cancer, genetics and heredity; prevention, detection and treatment of cancer. Literature research and presentation on molecular basis of various cancers required.

Prerequisite: BIOL 3431 or BIOL 4531 or equivalent.

BIOL 5732: Advanced Molecular Biology

Study of eukaryotic DNA replication, post transcriptional processing, eukaryotic gene regulation, overexpression and repression, protein structure.

Prerequisite: Genetics.

BIOL 5734: Oncogenes

Study of cancer at the level of the gene.

Prerequisite: Molecular biology.

BIOL 5736: Bioethics

Study of complex situations in biology and medicine that require moral reflection, judgment or decisions.

Prerequisite: General Biology.

BIOL 5737: Molecular Vectors

Properties, construction and use of vectors for molecular cloning and manipulation.

Prerequisite or corequisite: Molecular biology.

BIOL 5738: Gene Therapy

Gene technologies with applications to disease, cancer, neurological and genetic disorders, cardiovascular and infectious diseases.

Prerequisite or corequisite: Molecular biology.

BIOL 5833: Proteomics

Analysis of gene function of mRNA expression profiling with cDNA arrays, protein interactions by genome-side two hybrid screening and more direct analysis of protein expression, sequence and structure.

Prerequisite: Molecular Biology.

BIOL 5915: Cooperative Education Work Term

Educational paid work assignment by a student in the field of his/her career interest and course of study. Technical report will be required at the end of the semester.

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

***BIOL 5919, 5929, 5939: Independent Study in Biological Science**

Prerequisites: Approval of instructor, chair and associate dean.

BIOL 5931: Research Topics in Biology

Identified by specific title each time course is offered.

BIOL 6838: Research Project and Seminar

Students will complete a study of the current literature, including methodology and techniques, used in a selected area of Biology. A written review paper and an oral presentation will be required.

Prerequisite: 24 hours completed in approved graduate program.

BIOL 6939: Master's Thesis Research

Prerequisites: Approval of advisor, master's committee and dean.

BIOTECHNOLOGY COURSES

*Pending Coordinating Board approval

***BIOT 5021: Methods of Biotechnology**

Required for all students entering the Biotechnology program. Designed to provide training in laboratory skills and analysis. Students will be trained in basic laboratory skills associated with biochemistry, molecular & cell biology, prokaryotic & eukaryotic cell culture, microscopy, data analysis, etc.

BIOT 5031: Applied Biotechnology

Designed to provide advanced practical training in current techniques of molecular and cellular biology, including recombinant DNA technology. Southern and Northern analysis of nucleic acids, PCR, DNA sequencing and analysis using current computer programs, western blotting, fluorescent microscopy, etc.

Prerequisite: BIOT 5021

***BIOT 5122: Advanced Methods of Biotechnology II**

Will focus on describing latest techniques of molecular biology and proteomics, including chromatographic separations of proteins, His-tagged protein an Ni-column purification, design and analysis of dual expression plasmids, RTPCR, 2-D gel electrophoresis and mass spec analysis of proteins, yeast two-hybrid assay.

Prerequisite: BIOT 5021

BIOT 5031: Applied Biotechnology

How recombinant DNA technology can be used to create various useful products using experimental results and actual methodological strategies to illustrate basic concepts. Course is designed for students with backgrounds in biochemistry, molecular genetics or microbiology.

Prerequisite: Molecular Biology.

BIOT 5736: Bioethics

This course is designed to provide students with a thorough introduction to the current knowledge in stem cell biology. Current state of embryonic and adult stem cells research, disease treatment and the future research trends. Students will generate a NIH based mini-based proposal that stimulates their ability to make a hypothesis and generate specific aims that address this hypothesis. Students will learn how to evaluate a journal paper in stem biology and discuss the pros and cons of that paper.

***BIOT 5431: Plant Biotechnology**

Students will acquire a knowledge of genomic structure and methods to perform analysis of genetic variation in Plant Biology. Sub-topics will include marker development that includes AFLP, RFLP, RAPD, SSCP and CAPS. Students will learn how these types of markers are used to genotype different organisms. Assignments will include lectures, laboratory marker analysis, research proposal and oral presentation.

***BIOT 5433: Marine Biotechnology**

Students will focus on acquiring scientific literacy skills on the topic of marine biotechnology. Sub-topics will include marine natural products, seafood forensics, biofuels, biomaterials, biosensors and aquaculture. assignments will include journal clubs, laboratory demonstrations, research proposal and oral presentation.

BIOT 5530: Research Methods in Biotechnology

Students will develop a research proposal, which allows integrating knowledge and standard procedures in a chosen area of Biotechnology. A written research proposal and oral presentation will be required.

***BIOT 5535: Environmental Biotechnology**

This course introduces the concepts of microbiology and plant biology, the principles and applications of environmental biotechnology. Topics include stoichiometry, kinetics, mass balance, wastewater treatment, landfill, composting, plant-based phytoremediation, biodegradation and bioremediation of contaminated soils and groundwater.

BIOT 5733: Bioinformatics

Examination of the tools and sequence databases for all known genomes.

Prerequisite: BIOL 4531 or equivalent.

BIOT 5736: Bioethics

Study of complex situations in Biology, Biotechnology and Medicine that require moral reflection, judgment or decisions.

Prerequisite: General Biology.

BIOT 5915: Cooperative Education Work Term

Educational paid work assignment by a student in the field of his/her career interest and course of study. Technical report will be required at the end of the semester.

Prerequisites: Approved Candidate Plan of Study, completed cooperative education file and approval of associate dean and Director of Cooperative Education.

BIOT 5919, 5929, 5939: Independent Study in Biotechnology

Prerequisites: Approval of instructor, chair and associate dean.

BIOT 5931: Research Topics in Biotechnology

Identified by specific title each time course is offered

BIOT 6838: Research Project and Seminar

Students will complete a study of the current literature, including methodology and techniques used in a chosen area of Biotechnology. A written review paper and oral presentation will be required

Prerequisite: 24 hours completed in approved graduate program.

BIOT 6939: Master's Thesis Research

Prerequisites: Approval of advisor, master's committee and dean

CHEMISTRY COURSES

*Pending Coordinating Board approval

CHEM 5130: Mathematical Methods and Physical Concepts in Chemistry

Prepares chemistry graduate students for math and physics concepts they will encounter in graduate physical chemistry courses.

Prerequisites: CHEM 4231, CHEM 4232.

CHEM 5131: Gene Synthesis and Synthetic Gene Applications

Designed for those students who are interested in industrial applications in chemical and biotechnology areas.

Prerequisites: CHEM 3233, Biology and/or Biochemistry.

CHEM 5133: Spectroscopic Identification of Organic Compounds

Theory and practice of structure determination using IR, UV-VIS, PMR and MS techniques. Lecture and laboratory instruction.

Prerequisite: CHEM 4635 or equivalent.

CHEM 5134: Synthetic Organic Chemistry

Modern synthetic methods used in organic chemical synthesis. A mechanistic approach is used.

Prerequisites: CHEM 3233, CHEM 3234.

***CHEM 5135: Handedness in Science**

CHEM 4232, CHEM 5130. Handedness in chemistry, physics, 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 4232, CHEM 5130.

CHEM 5235: Kinetics of Chemical Reactions

The study of chemical bonding and structure as applied to practical chemical problems.

Prerequisites: CHEM 4231, CHEM 4232 or equivalent and CHEM 5130.

CHEM 5335: Advanced Inorganic Chemistry

The comprehensive study of the theory and properties of compounds containing the main groups of elements in the periodic table.

Prerequisite: CHEM 4335 or equivalent.

CHEM 5336: Organometallic Chemistry

Systematic study of the compounds containing a carbon-metal bond. Synthesis, structural types and typical reactions of both main group and transition metal compounds are discussed.

Prerequisites: CHEM 3233, CHEM 3234; CHEM 4231, CHEM 4232.

CHEM 5337: Physical Organic Chemistry

Advanced study of the relationships between structure and reactivity of mechanisms operating during organic chemical transformations.

Prerequisites: CHEM 3233, CHEM 3234; CHEM 4231, CHEM 4232.

CHEM 5431: Contaminant Fate and Transport

Principles of contaminant behavior in the environment. Case studies on important toxic chemicals including heavy metals, petroleum hydrocarbons, soap and detergents, pesticides, and polycyclic aromatic hydrocarbons. Suitable for non-majors.

Prerequisite: CHEM 3333 or equivalent.

CHEM 5535: Sampling & Analysis of Environmental Contaminants

Field sampling techniques, US EPA/OSHA/USGS/ASTM standard methodology, field and lab quality assurance/quality control (QA/QC), wet chemical methods and instrumentations for the analysis of environmental contaminants.

Prerequisite: MATH 3038.

CHEM 5631: Environmental Chemodynamics

Focus on the kinetic and thermodynamic mechanisms for chemical movement across air/soil, soil/water, water/sediment and water/air interfaces and how natural processes affect movement of chemicals in air, water, sediment and soil; information vital to performing human and ecological risk assessments.

Prerequisite: CHEM 3333.

CHEM 5632: Quantum Mechanics I

Foundations and techniques of Quantum Mechanics and their application to atomic and molecular properties.

Prerequisites: Calculus I, II and either University Physics (calculus-based) I, II or CHEM 4231, CHEM 4232 and either CHEM 5130 or PHYS 5531.

CHEM 5633: Astrobiology I

Origin of the universe, the chemical elements, the Earth and life, including pre-biotic chemistry. The nature of the first replicators, origin of the genetic code and the origin of biomolecular chirality.

Prerequisites: CHEM 4231, CHEM 4232, CHEM 5130.

CHEM 5634: Astrobiology II

The search for life in the universe, including chemistry of habitable planets, chemical signatures of life on other planets in the solar system and beyond and the Search for Extra-Terrestrial Intelligence.

Prerequisite: CHEM 5633.

CHEM 5635: Introduction to Polymer Chemistry

Introduction to the chemistry, structure and properties of polymers.

Prerequisite: CHEM 3233.

CHEM 5636: Gas Chromatography – Mass Spectrometry

The study of combined analytical methods such as GC/MS, LC/MS and MS/MS.

CHEM 5637: Modern Spectroscopy

Theory and application of spectroscopy including modern laser techniques.

Prerequisites: General Chemistry I, II, CHEM 4231, CHEM 3233, CHEM 3234 and CHEM 5130.

CHEM 5638: Total Synthesis of Natural Products

A mechanistic-based approach to the total synthesis of organic natural products.

Prerequisite: Approval of instructor.

CHEM 5639: Symmetry in Chemistry

Applications of group theory in physical, inorganic and organic chemistry.

Prerequisites: CHEM 3233, CHEM 3234; CHEM 4231, CHEM 4232, CHEM 4335 and CHEM 5130.

***CHEM 5731: Environmental Organic Chemistry**

Examine fundamental molecular processes of environmental organic contaminants in natural and engineered systems. Topics include equilibrium partitioning (air-water-soil-biota), sorption to soils and sediments and transformation processes (oxidation, reduction, hydrolysis, photolysis, biodegradation).

Prerequisite: CHEM 3333, CHEM 3230.

CHEM 5915: Cooperative Education Work Term

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 5919, 5939: Independent Study in Chemistry

Prerequisites: Approval of instructor, chair and associate dean required.

CHEM 5931: Research Topics in Chemistry

Identified by specific title each time course is offered.

CHEM 6731: Graduate Seminar

Advanced seminar where an in-depth perusal of a chemical topic shall be undertaken and a research proposal and formal presentation shall be completed.

CHEM 6837: Research Project and Seminar I

Students will develop a research proposal which allows integrating knowledge and standard procedures in the discipline. A written paper and a presentation will be required.

Prerequisite: Admission to graduate program in chemistry.

CHEM 6838: Research Project and Seminar II

Students will develop a research proposal which allows integrating knowledge and standard procedures in the discipline. A written paper and a presentation will be required.

Prerequisites: CHEM 6837 and 24 hours completed in approved graduate program.

CHEM 6939: Master's Thesis Research

Prerequisites: Approval of faculty advisor, master's committee and dean.

COMPUTER ENGINEERING COURSES

CENG 5011: Lab for Computer Engineering Fundamentals

Laboratory experiments in digital circuits and computer architecture.

Corequisite: CENG 5031.

CENG 5031: Computer Engineering Fundamentals

Fundamentals of logic systems and computer architecture.

Corequisite: CENG 5011.

CENG 5131: Engineering Applications

Study of modern engineering techniques emphasizing mathematical methods currently used in industry. The MATLAB software package will be used for problem solving.

Prerequisite: Linear Systems Analysis or equivalent.

CENG 5132: Advanced Engineering Applications

Presentation of modern mathematical and analysis techniques used for problem solving in engineering and other disciplines. Topics include state-space solutions, Fourier and Laplace analysis and probability and statistics. Each topic area will be completed with a solution of a practical example that is of current interest in various areas of technology. The MATLAB software package will be used for solving certain problems.

Prerequisite: CENG 5131.

CENG 5231: Network System Specification

The procedures and approaches used to evaluate and specify systems will be covered. Case studies will include systems that combine data acquisition, engineering workstation capability and small-business aspects in a networked group of computers. Laboratory instruction.

CENG 5232: Systems Engineering Analysis & Modeling

Use of computing tools to analyze, model and simulate solutions to complex systems engineering problems.

Prerequisites: SENG 5231 and SENG 5232 or permission of instructor and advisor.

CENG 5331: Theory of Information & Coding

Shannon's theory of information and coding applied to discrete communications channels; theory of finite fields applied to error detection and correction codes.

Prerequisites: Background in digital logic, statistics and linear systems analysis.

CENG 5333: Network Performance Analysis

Queuing theory, data link control, routing and flow control, polling and line control, LANs, circuit switching and call processing. Laboratory instruction.

Prerequisites: Background in data communications and probability theory.

CENG 5334: Fault Tolerant Computing

Lectures and research projects involving: design techniques for fault tolerant computers; fault modes; failure mechanisms; failure, fault and error relationship; architectural and software options for fault tolerance; modeling and evaluation techniques.

Prerequisites: Background in probability, computer hardware and computer software.

***CENG 5335: Digital Systems Testing**

Digital system fault modeling and diagnosis; test synthesis, design for test, functional testing, built-in self test; discussions of real world practical applications, cost effective techniques and industry standards.

Prerequisites: CENG 4534 or equivalent.

***CENG 5337: Low Power System Design**

Design of low power digital circuits, processors and systems; analysis of real world low power RISC processors; discussion of next generation power management and energy generation techniques.

Prerequisites: CENG 3531 or equivalent.

CENG 5431: Digital Signal Processing

Sampling, Fourier analysis, FFT's and digital filtering. Laboratory instruction.

Prerequisite: CENG 5131 or equivalent.

CENG 5432: Digital Control Systems

Analysis and synthesis of digital control systems and a comparison of continuous and discrete control systems. Laboratory instructions.

Prerequisite: CENG 5131 or equivalent.

CENG 5433: Principles of Digital Communications Systems

Analysis and synthesis of digital communications systems.

Prerequisites: Linear systems theory and calculus -based probability.

CENG 5434: Microcomputer Systems Design

Software design and use of 32-bit microcomputers and microcontrollers as used in modern computer systems and products. Laboratory instruction.

Prerequisites: Computer architecture and assembly language.

CENG 5531: Machine Learning and Applications

Fundamentals of machine learning and pattern recognition. Topics covered include neural networks, Bayesian inference and non-parametric techniques.

Prerequisite: MATH 3334.

CENG 5534: Advanced Digital System Design

Behavioral and structural design methods and examples using hardware description languages, including control, arithmetic, bus systems, memory systems and logic synthesis from hardware descriptions.

Prerequisite: CENG 4534 or equivalent.

CENG 5634: Artificial Neural Networks

Knowledge of computer algorithms, programming and a basic understanding of calculus, linear algebra, probability and statistical theory. A course covering artificial neural network (ANN) models and computation. The emphasis is on the rationale, theory, modeling, analysis, methodology, evaluation and representative applications of ANN. The computational capabilities and limitations of several popular ANN models are analyzed.

Prerequisite: Senior or graduate standing in computing, mathematics, business or other majors.

CENG 5915: Cooperative Education Work Term

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 5931: Research Topics in Computer Engineering

Identified by specific title each time course is offered.

CENG 5939: Independent Study in Computer Engineering

Prerequisites: Approval of instructor, chair and associate dean.

CENG 6332: High Performance Computer Architecture

Introduction to systems architecture design and tuning techniques for High Performance Computing; RISC's, cache, pipelines, hypercubes, data-flow and supercomputers. Laboratory instruction.

Prerequisite: Background in computer architecture.

CENG 6431: DSP Implementations

Implementation techniques of digital signal processing applications emphasizing Code Composer Studio and the TI DSP 320 family of digital signal processors. Laboratory instruction.

Prerequisites: CENG 5431 and C Programming.

CENG 6434: Advanced Microcomputer System Design

System and product design with modern microcomputers and micro controllers. Laboratory instruction.

Prerequisite: CENG 5434 or equivalent.

CENG 6532: Parallel Processing

Integrated discussion of the software and hardware design issues involved in parallel processing. Laboratory instruction.

Prerequisites: Background in computer architecture and programming.

CENG 6533: Robotics

Topics of current interest in robotics applied to the study of mechanical systems for robots, robotics control and sensors for robotics. Laboratory instruction.

***CENG 6534: Digital Systems Synthesis and Optimization**

Digital circuits and models; scheduling algorithms, resource sharing and binding; logic level synthesis and optimization; discussions of latest trends in digital systems using recent research findings.

Prerequisite: CENG 4534 or equivalent.

CENG 6838: Research Project

Students will be assigned a research project which requires integrating knowledge and standard procedures in the discipline. A written paper and a presentation will be required.

Prerequisite: 24 hours completed in graduate program.

CENG 6939: Master's Thesis Research

Prerequisites: Approval of advisor, master's committee and dean.

COMPUTER INFORMATION SYSTEMS COURSES

***CINF 5231: Strategic Information Systems**

Key concepts and principles of the strategic impact of information systems, importance of information systems in the global economy; technological elements of the infrastructure of information systems, business and social factors associated with the success or failure of business organizations.

***CINF 5234: Advanced Modern Systems and Design**

Key concepts and principles of the advanced systems analysis and design. Techniques, methods and tools of the systems analysis and design. Current issues of modern systems analysis and design in business areas

CINF 5915: Cooperative Education Work Term

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 5919, 5939: Independent Study in Computer Information Systems

Prerequisites : Approval of instructor, chair and associate dean.

CINF 5931: Research Topics in Computer Information Systems

Identified by specific title each time course is offered.

CINF 6838: Research Project and Seminar

Attendance at the orientation meeting on the first class day required. Students will be assigned a research project which requires integrating knowledge and standard procedures in the discipline. A written paper and a presentation will be required.

Prerequisite: 24 hours completed in graduate program.

CINF 6939: Master's Thesis Research

Prerequisites: Approval of faculty advisor, master's committee and Dean.

COMPUTER SCIENCE COURSES

CSCI 5032: Data Structures

Data structures including linked lists, queues, stacks, tables, trees, B-trees, B+ trees, balanced trees, graphs, finite state machines and file structures. Algorithms including recursion, searching and sorting. An introduction to complexity analysis. Leveling course for approved CS/CIS graduate students. Laboratory instruction.

Prerequisite: Programming in C or Java.

CSCI 5037: Topics in Computer Science for Non-Majors

Identified by topics each time the course is offered. Not to be taken by majors in computing programs.

Laboratory instruction.

CSCI 5061: Programming Languages and Problem Solving

Credit may not be applied toward a degree in Computer Science. Problem-solving techniques including in-depth coverage of Assembly Language and C. Principles and survey of programming languages, such as Pascal, Ada, C++, Java, Prolog, Lisp and Smalltalk. Laboratory instruction.

CSCI 5131: Simulation Techniques

Modern software techniques in continuous and discrete model construction for industrial and scientific applications. Laboratory instruction.

Prerequisites: Computer language proficiency, numerical methods and probability; linear systems analysis recommended.

CSCI 5132: Internet Protocols

Interconnection of heterogeneous networks and the layering principles of TCP/IP which make it possible. A brief look at underlying hardware technologies. Internet addressing and routing, reliable and unreliable transport protocols. Application level services available in the Internet.

Prerequisites: CSCI 3331, CSCI 3333 and CSCI 3532 or equivalents.

CSCI 5232: Concepts of Programming Languages

The course assumes knowledge of at least one imperative language such as C, C++, or Java. Study of various programming languages from conceptual standpoint; topics will include formal language definition, data storage techniques, design techniques and implementation issues for compilers. Both numeric and string processing languages will be covered.

Prerequisite: CSCI 3333.

CSCI 5233: Computer Security & Integrity

Introduction to encryption and decryption; security mechanisms in computer architectures, operating systems, databases, networks and introduction to security.

Prerequisites: CSCI 4333, CSCI 4534 or equivalents.

CSCI 5234: Web Security

Fundamental coverage of issues and techniques in developing secure web-based applications and related topics such as network security, web server security, application-level security and web database security, etc.

Prerequisites: CSCI 5233 and CSCI 4230 or instructor's approval.

CSCI 5235: Network Security

Advanced cryptography, access control, distributed authentication, TCP/IP security, firewalls, IPSec, Virtual Private Networks, intrusion detection systems and advanced topics such as wireless security, identity management, etc.

Prerequisites: CSCI 5233 or CSCI 4233 and CSCI 5132 or CSCI 4132.

CSCI 5331: Computer Graphics

Interactive graphics techniques, three dimensional graphics including 3-D projections, hidden line elimination and shading. Stereo graphics, Virtual Reality and Animation. Laboratory instruction.

Prerequisites: CSCI 3532, CSCI 4530 or equivalent, linear algebra and analytic geometry.

CSCI 5332: Advanced Graphics Windowing Systems

Analysis and design of graphics techniques for windowing systems. Development of graphical user interfaces (GUIs) using the X Window System. Laboratory instruction.

Prerequisites: CSCI 3532, CSCI 4530 and C programming.

CSCI 5333: Database Management Systems (Dbms)

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.

Prerequisite: CSCI 4333.

CSCI 5431: Client-Server Based Network Programming

Principles and issues related to the development of client-server based applications. Detailed study of networking API to the TCP/IP protocol suite in a suitable multitasking platform (Unix or Windows NT). Concurrency issues in the design of client and server programs. Trade-offs of different architectures and usage of Remote Procedure Calls. Broadcasting and Multicasting. Interoperability of IPv4 and IPv6 clients and servers. Laboratory instruction.

Prerequisites: CSCI 3133; CSCI 4531 or CSCI 4534.

CSCI 5432: Design and Analysis of Algorithms

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.

Prerequisite: CSCI 3532.

CSCI 5433: Object-Oriented Database Systems

Integration of object-oriented technology with database and Internet technologies, topics include modeling and design for object-oriented database systems, their development processes, implementation of online web database applications using object-oriented languages, scripting languages and object-oriented DBMS to store and retrieve objects in an object-oriented database. Laboratory instruction.

Prerequisite: CSCI 4333; CSCI 4230 recommended.

CSCI 5530: Pattern Classification

Introduction to the basic concepts of pattern classification including Bayes decision theory, parametric and non-parametric techniques, linear discriminant functions and clustering. Laboratory instruction.

Prerequisites: Calculus, linear algebra, probability, statistics and a compiler language.

CSCI 5531: Advanced Operating Systems

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 4534, familiarity with C and UNIX system calls.

CSCI 5532: Pattern Recognition and Image Processing

An introduction to basic concepts and techniques for digital image processing, including software and hardware techniques for statistical pattern recognition and extracting useful information from pictures by automatic means. Laboratory instruction.

Prerequisites: Calculus, linear algebra, probability, statistics and a compiler language.

CSCI 5533: Distributed Information Systems

Distributed transparency, distributed DBMS architecture, distributed database design, semantic data security and integrity control, distributed query processing, database interoperability, mobile databases, distributed concurrency control and recovery, distributed DBMS. Laboratory instruction.

Prerequisite: CSCI 5333.

CSCI 5631: Foundations for Service Oriented Architectures

Principles and issues related to the development of interface based software components as the foundation for developing Service Oriented Architecture (SOA). Topics include interface definition and design, language integration (VB, C#, C++ and Java), concurrency and threading issues, type libraries, distributed components, call backs and persistence.

Prerequisite: CSCI 5431 or CSCI 5531.

CSCI 5633: Web Database Development

Principles of design and implementation of web database systems for storing, updating and retrieving data on the web: web database development techniques, database modeling, SQL development, web database connectivity, web database application programming. Scripting languages, exchanging data with XML, user authentication, user tracking, session management, e-commerce and web database administration will be covered. Laboratory instruction.

Prerequisites: CSCI 4230 and CSCI 4333.

CSCI 5635: Parallel Processing

Integrated discussion of the software and hardware design issues involved in parallel processing. Laboratory instruction.

Prerequisite: Background in computer architecture and programming.

CSCI 5733: Xml Application Development

XML standards including XML, DTD, DOM, XSL, XSLT, Xpath, Xpointer and XML Schema. XML related technologies including XML parsers, JAXP, XSL parsers, XML servers, XML databases, SOAP and Web services. Laboratory instruction.

Prerequisites: CSCI 3134, CSCI 4230.

CSCI 5833: Data Mining: Tools and Techniques

CSCI 5333 recommended. Overview of the data mining process (e.g., CRISP-DM) including issues of data cleansing and data modeling. Characterization of data (structured, unstructured, time series). Examination of machine learners (neural networks, decision trees, genetic programs). Critique of various data mining tools regarding functionality and application. Assessment of data mining domains using financial, bioinformatics and web-based repositories.

Prerequisites: CSCI 3333 and CSCI 4333.

CSCI 5915: Cooperative Education Work Term

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 5919, 5939: Independent Study in Computer Science

Prerequisites: Approval of instructor, chair and associate dean.

CSCI 5931: Research Topics in Computer Science

Identified by specific title each time course is offered.

CSCI 5933: Computational Bioinformatics

Course assumes students have very little or no prior Biological background. The course examines computational approaches to understanding and predicting the structure, function, interactions and evolution of DNA, RNA, proteins and related molecules and processes. The methods taught focus on developing the structure of the models, on model fitting algorithms (machine learning) and on the application of the resulting models (data mining). Most applications will revolve around DNA, RNA, protein sequence and gene expression-array data, but other types of data may also be considered.

Prerequisite: CSCI 5833.

CSCI 6132: Enterprise Networking

Seminar in enterprise networking; groupware, workflow and workgroup computing. Laboratory instruction.

Prerequisite: CSCI 5132.

CSCI 6530: Research Methods in Computer Science

A study of current methods and techniques in computer science research, including writing research proposals, conducting research, technical writing and presentations.

CSCI 6532: Real-Time Systems

Major issues in the design and implementation of predictable real-time systems including cyclic executives, fixed priority executives, dynamic priority executives, priority inversion, object-oriented design, real-time transaction systems, real-time programming languages and real-time operating systems. Laboratory instruction.

Prerequisite: Background in operating systems.

CSCI 6838: Research Project and Seminar

Attendance at the orientation meeting on the first class day required. Students will be assigned a research project which requires integrating knowledge and standard procedures in the discipline. A written paper and a presentation will be required.

Prerequisite: 24 hours completed in graduate program.

CSCI 6939, 6969: Master's Thesis Research

Prerequisites: Approval of faculty advisor, master's committee and Dean.

ENGINEERING MANAGEMENT COURSES

*Pending Coordinating Board approval

EMGT 5130: New Business Development

The course concentrates on proposal writing; how to write an executive summary; proposal management; proposal process & procedures; proposal training; oral proposal presentations; government contracting and request for proposals.

Prerequisites: Foundation courses.

EMGT 5131: Legal Issues in Engineering Management

This course will provide an overview of warranty law, deceptive trade practices law, product liability and class action concepts. Class discussions will focus on legal considerations for engineering managers, risk assessment and the expense and adverse impact of litigation.

Prerequisites: Foundation courses.

298 School of Science and Computer Engineering

EMGT 5230: Negotiation Strategies

This course will educate the student to better understand the behavior of individuals, groups and organizations in the context of competitive situations. Students develop negotiation skills experientially and understand negotiation in useful analytical frameworks.

Prerequisites: Foundation courses.

EMGT 5231: Engineering Management Planning

This course offers engineering management planning; design and implements systems concepts that are involved with government contracting. The course focuses on the production of a system engineering management plan.

Prerequisites: Foundation courses.

EMGT 5330: Service and Operations Management

This course provides an overview, concepts and methods that are useful in understanding the management of firm's operations. This course will concentrate on operations strategy, process improvement, forecasting, lean and just-in-time and supply chain management.

Prerequisites: Foundation courses.

EMGT 5331: Six-Sigma Quality

This course will cover the knowledge areas of six sigma green belt. Topics include six sigma goal, lean principles, theory of constraints, design for six sigma, quality function deployment, process management, data and process analysis and design of experiments.

Prerequisites: Foundation courses.

***EMGT 5430: Professional Project Management**

This course focuses on project management through the critical examination of project defining, planning, implementing, monitoring, controlling and documenting. Includes the nine project management knowledge areas defined in the Project Management Body of Knowledge (PMBOK) issued by the Project Management Institute (PMI), project management software and techniques and skills required for good project management. The course concentrates on the production of a project management plan.

Prerequisites: Foundation courses.

***EMGT 5530: Organizational Analysis and Management**

This course examines the human side of management through the application of behavioral science for technical professionals. This course focuses on decision making, project teams, leadership and organization skills.

Prerequisites: Foundation courses.

***EMGT 5531: Technology Planning and Management**

This course discusses frameworks and analytical processes for analyzing how firms can create, commercialize and capture value from technology-based products and services.

Prerequisite: EMGT 5530 or equivalent.

EMGT 5931: Research Topics in Engineering Management

Identified by specific title each time course is offered.

***EMGT 5939: Independent Study in Engineering Management**

Prerequisite: Foundation courses. Approval of faculty advisor, chair and associate dean.

EMGT 6837: Engineering Management Capstone Project

Students will be grouped into teams to undertake a software project utilizing the tools, techniques and skills acquired during their previous course work. Each team will be assigned to a client and will interact with that client to establish requirements, agree upon a design and achieve a successful acceptance test of the resulting software system. Teams will meet on a weekly basis with their faculty mentor to discuss progress.

Prerequisites: At least 18 hours of graduate work in EMGT.

EMGT 6939: Master's Thesis Research

Prerequisites: Approval of faculty advisor, thesis committee and dean.

ENVIRONMENTAL SCIENCE COURSES

ENSC 5031: Teaching Environmental Science

The course is designed for K-12 teachers to enhance their own knowledge, awareness and understanding of environmental issues (air, water and waste) of national and regional importance. It is also designed to equip teachers of all grades with the appropriate educational resources so that they may effectively teach their own students about issues of environmental sciences through classroom instruction, laboratory assignment, site visit, observations and field demonstration.

***ENSC 5333: Fundamentals of Environmental Engineering**

The course is designed to provide a broad overview of current environmental problems as well as in-depth discussions on engineering solutions. Includes the fundamentals of mass/energy balance, chemistry, microbiology and physics application to environmental problems. Basic engineering design used in water quality management, water treatment, wastewater treatment, air quality, pollution control and solid/hazardous materials management will be the themes of this course.

Prerequisite: CHEM 3333 or equivalent.

ENSC 5530: Research Methods: Environmental Science

Development of proposal for master's project or thesis research.

Prerequisites: STAT 5135, advisor approval and approved research topic.

ENSC 5915: Cooperative Education Work Term

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 5931: Research Topics in Environmental Science

Identified by specific title each time course is offered.

ENSC 5939: Independent Study in Environmental Science

Prerequisites: Approval of instructor, chair and associate dean.

ENSC 6731: Graduate Seminar

Advanced seminar where an in-depth perusal of an environmental science topic shall be undertaken and a formal paper and presentation shall be completed.

Prerequisites: ENSC 5530, STAT 5135 and 24 hours completed in an approved graduate program.

ENSC 6838: Research Project

Students complete their research project; write the research paper and present research findings in a public forum.

Prerequisites: ENSC 5530, 24 hours completed within a CPS and approval of graduate advisor.

ENSC 6939: Master's Thesis Research

Prerequisites: Master's degree candidacy as well as approval by advisor, master's committee and dean.

GEOLOGY COURSES

Please note: All GEOL graduate courses (5000 and 6000 level) assume the student has completed (or is currently enrolled in) courses equivalent to physical geology, mineralogy and petrology, plus stratigraphy or sedimentology.

GEOL 5233: Environmental Geochemistry

Basic solution geochemistry and equilibria concepts to formation and alteration of sedimentary materials of low temperature origin. Geochemistry of fluids in natural aqueous environments with emphasis on diagenesis and weathering.

Prerequisites: GEOL 3034, 3137 or equivalent; Inorganic and organic chemistry.

GEOL 5331: Environmental Geology

Relationships and interactions between pollutants and earth materials, land instability hazards, resource exploitation problems; and other topics of current interest.

GEOL 5333: Wetlands

Survey of wetlands types including coverage of environmental importance of wetlands, interaction of soils, geomorphology and biological community in wetlands formation, wetlands protection and wetlands creation.

Prerequisite: GEOL 4233.

GEOL 5531: Hydrology of Groundwater

Course emphasizes principles of occurrence and movement of ground water. Factors applying to pollution, estimates of supply and engineering aspects will be emphasized. Local case studies will be included. Laboratory exercises included.

Prerequisite: GEOL 3034, 4531.

GEOL 5532: Hydrology of Surface Water

Course will emphasize principles of occurrence and movement of surface water. Factors applying to pollution, estimates of supply and engineering aspects will be studied. Local case studies of water resources, flooding and effects included. Laboratory exercises included.

Prerequisite: GEOL 3034 or equivalent.

GEOL 5631: Remote Sensing: Applications in Geology

Course emphasizes principal sensors and products of spacecraft remote sensing. Emphasizes applications of remote sensing to geology, hydrology, oceanography and biology. Land use and other environmental applications are also included. Laboratory exercises included.

Prerequisites: GEOL 3034, 4222, 4234 or equivalent.

GEOL 5632: Hazardous Materials in The Geologic Environment

Study of the environmental problems arising from use of the geologic environment as a waste repository. Course includes such topics as landfills, clay lined waste pits, underground storage tanks, deep well injection, role of salt deposits in waste disposal and ordinance contamination of Department of Defense sites.

Prerequisite: GEOL 5531.

GEOL 5730: Planetary Geology

Comparison of the planets and the solid surface satellites with emphasis on the terrestrial planets. Latest space probe data included.

Prerequisites: GEOL 3034 or equivalent, GEOL 3137, GEOL 4234.

GEOL 5931: Research Topics in Geology

Identified by specific title each time course is offered.

GEOL 5939: Independent Study in Geological Sciences

Prerequisites: Approval of instructor, chair and associate dean.

GEOL 6838: Research Project and Seminar

Students will develop a research proposal which allows integrating knowledge and standard procedures in the discipline. A written paper and a presentation will be required.

Prerequisite: 24 hours completed in approved graduate program.

GEOL 6939: Master's Thesis Research

Prerequisites: Approval of advisor, master's committee and dean.

INDUSTRIAL HYGIENE AND SAFETY COURSES

INDH 5131: Control of Occupational and Environmental Hazards

Engineering and control technology used to eliminate and reduce hazards. Includes ventilation design, shielding, heat and cold stress, noise control, emissions control and waste management.

Prerequisites: INDH 4131, 4133, 4135 or equivalents.

INDH 5233: Recognition of Occupational Diseases

Incidence and patterns of occupational diseases in the U.S. Approaches to recognition and prevention. Workplace exposures and effects. Occupational disorders by organ systems.

Prerequisite: BIOL 4235.

INDH 5333: Air Pollution

Background, sources and fate of atmospheric pollutants. Air pollution episodes, meteorology, dispersion modeling, air quality measurements, controls, criteria, guidelines and health standards.

INDH 5334: Human Factors Engineering

Provides an analysis of the principles of human factors and ergonomics. The course covers human information processing, man-machine systems, information design, display and control design, static and dynamic anthropometrics and fundamentals of biomechanics, musculoskeletal injuries, including Cumulative Trauma Disorders such as Carpal Tunnel Syndrome, hand tool design, back injuries, vibrations, shift work, biological rhythms and workload assessment. Emphasis is placed on ergonomic methods and techniques to assess the design of modern work environments.

INDH 5335: Ergonomic Methods and Analysis Techniques

Provides students with a variety of methods to analyze tasks and make accommodations and redesigns based on the principles of human factors and ergonomics. Emphasis is placed on Human Factors/Ergonomic methods and techniques to assess the design of modern work environments to accommodate people with disabilities or provide suitable redesigns to enhance human performance.

INDH 5739: Internship in Industrial Hygiene and Safety

Supervised work experience in an approved industrial firm or governmental agency. Written and oral report required.

Prerequisites: Master's degree candidacy as well as approval by advisor and dean.

INDH 5915: Cooperative Education Work Term

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.

INDH 5919, 5939: Independent Study in Industrial Hygiene & Safety

Prerequisites: Approval of instructor, chair and associate dean.

INDH 5931: Research Topics in Industrial Hygiene and Safety

Identified by specific title each time course is offered.

INDH 6135: Radiation Protection

Advanced principles of ionizing and non-ionizing radiation are presented to provide the students who already have a basic understanding of radiation protection with an enhanced competence to solve theoretical and practical problems in radiation protection.

INDH 6232: Analytical Methods for Evaluation of Health Hazards

Survey procedures and instrumental methods of analysis for atmospheric and occupational hazards. Optical microscopy, noise, radiation, colorimetry, gas chromatography, atomic absorption, infrared and mass spectrometry.

Prerequisite: INDH 4232 or equivalent.

INDH 6332: Safety Engineering

Application of engineering principles to produce design, plant layout, construction, maintenance, pressure vessels, power tools, electric equipment, confined spaces and transportation systems. Includes consensus standards and governmental regulations.

Prerequisite: INDH 3430 or equivalent.

MATHEMATICS COURSES

MATH 5031: Problem-Solving Strategies

A focus on the connection between problem-solving, teaching mathematics for understanding and the development of mathematical reasoning. Also highlighted will be the student's own development of problem-solving abilities and ability to communicate their reasoning.

MATH 5033: Instructional Applications of Algebra

A seminar on the content of secondary school courses in algebra and applicable instructional techniques.

MATH 5034: Geometry Seminar

Topics in Euclidean and Non-Euclidean geometries. An emphasis on the strengthening of proof-writing techniques. Also discussed will be the use of technology and concrete materials in the teaching and learning of geometry.

Prerequisite: MATH 3035 or equivalent.

MATH 5035: Precalculus Courses for Mathematics Teachers of Grades 10-14

A seminar on various current and potential approaches to the content of precalculus mathematics with applicable instructional techniques.

MATH 5036: Calculus for Mathematics Teachers of Grades 10-14

A seminar on various approaches to the teaching of introductory calculus.

MATH 5037: Technology for Mathematics Curriculum

Current laboratory applications of computers and calculators in the mathematics curriculum. Symbolic, numerical and graphical computing will be applied to various mathematical problems.

Prerequisites: Calculus, MATH 3131 and MATH 4131.

MATH 5131: Abstract Algebra

Groups, rings, fields, modules; ideal theory, polynomial rings, algebraic and free groups.

Prerequisite: MATH 4232 or equivalent.

MATH 5132: Real Analysis

General measure and integration theory. Banach and Hilbert spaces; applications to approximation theory, probability theory and summability.

Prerequisite: MATH 4431 or equivalent.

MATH 5133: Complex Analysis

The theory of analytic functions and analytic continuation. Branched functions; an introduction to homotopy theory and basic metric space topology. Integration theory, Cauch's theorem and residue theory.

Prerequisite: MATH 4633 or equivalent.

MATH 5134: Logic

Propositional and predicate calculus; foundations, computability.

Prerequisite: MATH 4231 or equivalent.

MATH 5136: Ordinary Differential Equations and Dynamical Systems

This course covers the dynamical aspects of ordinary differential equations and the relationship between theory and applications. Fundamental theorems of solutions of ordinary differential equations oriented toward dynamical systems, local globe phase portrait analyses of nonlinear autonomous systems and the criteria for the existence of periodic solutions are examined along with various applications.

Prerequisites: MATH 3131, MATH 3231 and MATH 4131 or equivalent.

MATH 5137: Topology and Geometry

Set Theory, Topological Spaces, Connectedness and Compactness, The Fundamental Group and Covering Spaces, Surfaces and their applications.

Prerequisite: MATH 4133 or equivalent.

MATH 5231: Linear Algebra

Fields and vector spaces, determinants and their characterization, adjoints operators, eigenvalues and eigenvectors, diagonalizability, canonical forms and matrix functions.

Prerequisite: MATH 3131.

MATH 5232: Number Theory

An introduction to analytic number theory, which uses the tools of analysis (particularly complex function theory) to investigate questions in number theory. The distribution of the primes is of central interest. Some of the tools developed are Dirichlet series, character theory, formal power series and contour integration. Various topics in arithmetical functions are also considered.

Prerequisite: MATH 4132 or equivalent.

MATH 5330: Mathematical Software and Modeling Simulation

Explores computer software in applied Mathematics using Matlab. A variety of programming paradigms are emphasized. A collection of topics in applied. Mathematics, chaos and neuroscience modelings, are incorporated into Matlab programming.

Prerequisites: MATH 3131 and MATH 4131 or equivalent.

MATH 5333: Numerical Analysis

Mathematical analysis and numerical computation of solutions to linear and nonlinear systems, ordinary differential equations, integral equations and boundary value problems.

Prerequisites: MATH 3131, MATH 3231, MATH 4131 and C/C++ or equivalent.

MATH 5431: Mathematical Modeling in The Applied Sciences

Techniques for analyzing and simulating physical, chemical and biological processes.

Prerequisite: MATH 4235 or equivalent.

MATH 5931: Research Topics in Mathematics

Identified by specific title each time course is offered.

MATH 5939: Independent Study in Mathematics

Prerequisites: Approval of instructor, chair and associate dean.

MATH 6131: Introduction to Algebraic Topology and Geometry

An introduction to topics in algebraic topology; manifold theory and their applications.

Prerequisite: MATH 4133 or equivalent.

MATH 6837: Research Project I

Student will develop and complete a research project which requires integrating knowledge and standard procedures in the discipline. A written paper and presentation will be required.

MATH 6838: Research Project II

Student will complete research project developed in MATH 6837. A written paper and presentation will be required.

MATH 6939: Master's Thesis Research

Prerequisites: Approval of faculty advisor, master's committee and dean.

PHYSICS COURSES

Please note: All PHYS graduate courses (5000 or 6000 level) assume the student has a solid background in physics and mathematics, at least through differential equations.

***PHYS 5031: Experiments in Modern Physics**

Topics include: Experiments including relativity, light, nuclear physics and quantum mechanics. Experimental research project.

Prerequisite: PHYS 3033 or equivalent.

PHYS 5311: Recitation for Electrodynamics

One hour recitation section to review examples and problems in PHYS 5331.

Prerequisite or corequisite: PHYS 5331.

PHYS 5331: Electrodynamics

Dynamics of electric and magnetic fields, Maxwell's equations, electromagnetic radiation, special relativity, wave guides, boundary value problems, multipoles, scattering, radiation from moving charges, radiating systems, relativistic particles in electromagnetic fields, collisions of charged particles, radiation damping and radiative beta process.

Prerequisites: PHYS 5531 or instructor approval and PHYS 4331 or equivalent.

PHYS 5411: Recitation for Classical Mechanics

One hour recitation section to review examples and problems in PHYS 5431. Advanced topics in electrodynamics not normally covered in PHYS 5331 such as radiating systems, diffraction, relativistic particles in electromagnetic fields, collisions of charged particles, radiation damping and radiative beta processes.

Prerequisite or corequisite: PHYS 5431.

PHYS 5431: Classical Mechanics

Introduces concepts such as the Lagrangian dynamics of particles, Hamiltonian mechanics and canonical transformations in order to calculate the classical motion of particles.

Prerequisite: PHYS 5531 or instructor approval.

PHYS 5511: Recitation for Mathematical Methods in Physics I

One hour recitation section to review examples and problems in PHYS 5531.

Prerequisite or corequisite: PHYS 5531.

PHYS 5531: Mathematical Methods in Physics I

A review of essential mathematics required to solve graduate level physics problems: differential equations, complex mathematics, linear algebra, infinite series and more.

Prerequisites: PHYS 4131, PHYS 4132 or equivalent.

PHYS 5532: Mathematical Methods in Physics II

This course is a continuation of Mathematical Methods in Physics I. Course content may include: boundary conditions, perturbation theory, group theory, tensor analysis, using mathematical software packages (such as Mathematica, Matlab or Maple) or other advanced mathematical applications to physics.

Prerequisite: PHYS 5531 or instructor approval.

PHYS 5533: Methods in Computational Physics

An introduction to the numerical methods used to solve various physics problems; evolving differential equations, performing Monte-Carlo simulations, simulate fluid flow and more.

Prerequisites: PHYS 5531 or instructor approval and a working knowledge of a programming language.

PHYS 5611: Recitation for Quantum Mechanics I

One hour recitation section to review examples and problems in PHYS 5631.

Prerequisite or corequisite: PHYS 5631.

PHYS 5612: Recitation for Quantum Mechanics II

One hour recitation section to review examples and problems in PHYS 5632.

Prerequisite or corequisite: PHYS 5632.

PHYS 5631: Quantum Mechanics I

Fundamental concepts of non-relativistic quantum mechanics. Solution of simple one-dimensional problems. Hilbert-space description. Matrix representations. Quantum dynamics. Extension to three dimensions. Spin and orbital angular momentum.

Prerequisites: PHYS 5531, CHEM 5130 or instructor approval and PHYS 4432 or equivalent.

PHYS 5632: Quantum Mechanics II

Sequel to Quantum Mechanics I, Angular momentum theory. Symmetries and conservation laws. Application of approximation methods to realistic problems. Systems of identical particles. Scattering theory. Relativistic single-particle wave equations. Introduction to quantum computing.

Corequisite: PHYS 5612.

Prerequisite: PHYS 5631 or equivalent.

PHYS 5711: Recitation for Statistical Mechanics and Thermodynamics

One hour recitation section to review examples and problems in PHYS 5731.

Prerequisite or corequisite: PHYS 5731.

PHYS 5731: Statistical Mechanics and Thermodynamics

An advanced treatment of statistical mechanics and thermodynamics in order to solve problems involving many individual particles. Topics include probability, microcanonical and canonical ensembles and the laws of thermodynamics.

Prerequisites: PHYS 5531, CHEM 5130 or instructor approval and PHYS 4531 or equivalent.

PHYS 5739: Internship in Physics

Supervised work experience in an approved industrial firm or government agency. Written and oral report required.

Prerequisites: Master's degree candidacy as well as approval by advisor and dean.

PHYS 5915: Cooperative Education Work Term

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 5919, 5939: Independent Study in Physics

Prerequisites: Approval of instructor, chair and associate dean.

PHYS 5931: Research Topics in Physics

Identified by specific title each time course is offered.

PHYS 6132: General Relativity

Topics include: Manifolds, Spacetime Curvature, Riemann Geometry, Geodesics, Killing Vectors, Einstein's Equation, The Schwarzschild solution and other Black Hole solutions to Einstein's Equations.

Prerequisite: PHYS 5331 or equivalent.

PHYS 6231: Plasma Physics

Computer programming experience and PHYS 5533 are desired but not required. The course provides a basic understanding of plasma physics fundamentals and a review of the state-of-the-art of current research of plasma science and engineering (nuclear fusion, industrial plasmas, advanced space propulsion and space plasmas).

Prerequisite: Core Physics courses or instructor approval.

***PHYS 6331: Astroparticle Physics**

Topics include: Symmetries and conservation rules, introduction to representation of groups, gauge theories, neutrino astrophysics, particle cosmology and astrophysics. Prerequisite: PHYS 5632 or equivalent.

PHYS 6838: Research Project and Seminar

Students will develop a research project that integrates knowledge and standard procedures in the discipline. A written paper and oral presentation will be required.

Prerequisites: 24 hours completed in approved graduate program.

PHYS 6939: Master's Thesis Research

Prerequisites: Approval of faculty advisor, master's committee and dean.

SOFTWARE ENGINEERING COURSES

*Pending Coordinating Board approval

SWEN 5130: Requirements Engineering

Current techniques, methods, tools and processes used in requirements analysis, definition and specification, including system modeling.

Prerequisite: SWEN 4432 or SWEN 5432.

SWEN 5131: Software Engineering Tools

Current tools used in industry to support various phases of software development are covered such as Rational Rose, Objectory Process, as well as coverage of object-oriented modeling using UML (Unified Modeling Language)

Prerequisite: SWEN 4432 or SWEN 5432.

SWEN 5132: Software Design Patterns

This course provides an in-depth view of software design patterns; the recurring solutions to common problems in software design. It provides opportunities for learning the most advanced features of modern software development methodology. Topics include Design visualization, Creational, Structural and Behavioral Design Patterns, Anti-patterns, Service Oriented Architecture pattern, Secure usability and Pattern languages.

Prerequisite: A course in programming in a high level language is required.

SWEN 5133: Aspect-Oriented Development

Aspect-Oriented software development (AOD) is a new programming paradigm that increases modularity with a separation of cross-cutting concerns. This course provides a broad perspective of AOD. the topics include: Aspect-Oriented design in C# and visual programming languages, separation of concern in .Net web development, visual simulations, patterns and frameworks, aspects design in video game and robotics software development. Prerequisite: A course in data structures.

SWEN 5134: Gaming Software Development with Service Oriented Architecture

This course provides an in-depth study of computer game development technology based on SOA architecture; the design principles, architecture pattern, dynamic interoperability, visual simulation, web gaming services and technology infrastructures. Students will experience the advanced computer gaming technologies based on the emerging information service architecture.

Prerequisite: SWEN 5232.

***SWEN 5136: Software Robotics**

This course addresses the design and implementation of software to control autonomous robotic devices to perform special tasks under various conditions. It provides a study of programming issues of robotics control for individual and multiple cooperating robots, including design principles, theories, graphical programming languages, algorithms, data acquisition and analysis, machine intelligence and techniques to develop autonomous robotics system with various sensors and actuators.

Prerequisite: A course in data structures.

***SWEN 5137: Game Design and Development**

Principles of game design and development of software for computer gaming.

Prerequisite: A course in data structures.

***SWEN 5138: Design and Development of Virtual Worlds, Sims and Animation Scripting**

Project-based course that involves the introduction to and development of Virtual World and Sims using 3-D graphic software and animation scripting languages. Development work will also include periodic oral presentations and project documentation. Students may be required to provide their own laptop and may be required to purchase special software.

Prerequisite: SWEN 5134.

SWEN 5230: Software Project Management

Issues faced in management of large software development projects; estimation, planning execution, monitoring, evaluation and refinement.

Prerequisite: CSCI 3133.

SWEN 5232: Software Construction

Study of Modern Software Development design methods, analysis methods and implementation techniques including Aspect Oriented Development and Service Oriented Architectures. course will also involve the study of UML and .Net and C-sharp programming.

Prerequisite: A course in data structures.

SWEN 5233: Software Architecture

Knowledge of complex programs recommended. Domain models, generic architectures and frameworks as well the context, scope, current and future state of software architecture.

Prerequisites: SWEN 5232.

SWEN 5234 Software Processes

Detailed coverage of the theory, application, assessment and evaluation of the Unified Process Model. Course will cover the process modeling, process assessment, quality assessment of process models and process improvement techniques.

Prerequisites: SWEN 4432 or SWEN 5432.

SWEN 5430: Software Metrics

MATH 3334 recommended. Theory, application and techniques of measurement and analysis. Process and product metrics.

Prerequisite: SWEN 4432.

SWEN 5431: Testing, Validation and Verification

Role of software testing, verification and validation (V&V) in the system life cycle. Current techniques, tools and methods are addressed as well as current testing and V&V standards. Laboratory instruction.

Prerequisite: SWEN 4432 or SWEN 5432.

SWEN 5432: Software Engineering Life Cycle

In-depth study of the front end of the software life cycle. Feasibility, Concept, Requirements, Specification, Architecture and detailed design methods are explored and exercised.

Prerequisite: A course on data structures or software development work experience.

***SWEN 5433: Software Design**

Theory, application and techniques of software design, its representation and analysis, including domain modeling and analysis.

Prerequisite: SWEN 5232.

SWEN 5435: Personal Software Process

Examination, study and improvement of the students' personal software development practice and study of the process used to effect such improvement.

Prerequisite: A course on data structures or software development experience.

SWEN 5532: Software Safety

Analysis, design, verification and validation of mission and safety critical systems. Risk and hazard assessment, certification techniques and standards.

Prerequisites: SWEN 5233 and SWEN 5234.

SWEN 5534: Reuse and Reengineering

Engineering for and with reuse. Domain and application engineering and reverse and forward engineering.

Prerequisite: SWEN 4432 or SWEN 5432.

SWEN 5931: Research Topics in Software Engineering

Identified by specific title each time course is offered.

SWEN 5939: Independent Study in Software Engineering

Prerequisites: Approval of instructor, chair and associate dean.

SWEN 6837, 6838: Software Engineering Capstone Project

Students will be grouped into teams to undertake a software project utilizing the tools, techniques and skills acquired during their previous course work. Each team will be assigned to a client and will interact with that client to establish requirements, agree upon a design and achieve a successful acceptance test of the resulting software system. Teams will meet on a weekly basis with their faculty mentor to discuss progress.

Prerequisites: At least 18 hours of graduate work including SWEN 5233 and SWEN 5234.

SWEN 6939: Master's Thesis Research

Prerequisites: Approval of faculty advisor, master's committee and dean.

STATISTICS COURSES

STAT 5135: Applied Statistical Methods

Not available for mathematics majors. 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.

Prerequisite: MATH 3038 or equivalent.

STAT 5431: Theory and Application of Probability

Probability axioms and properties, conditional probability, random variables, probability distributions, moment generating function, laws of large numbers and central limit theorem.

Prerequisite: MATH 4331 or equivalent.

STAT 5432: Theory and Applications of Statistics

Point and interval estimation, testing of hypotheses, nonparametric methods, regression, analysis of variance, robustness and model fitting.

Prerequisite: STAT 5431.

STAT 5531: Multivariate Statistical Analysis

The study of multivariate normal distribution, estimation of mean and covariance matrix. T2-statistic, Wishart analysis, principal components and factor analysis and other techniques as applied to industrial and decision processes.

Prerequisite: MATH 4435 or equivalent.

STAT 5532: Linear Models and Regression Analysis

Distributions of quadratic forms, general linear models, least squares estimation, hypothesis testing, confidence intervals, multiple regression, variable selection, residual analysis and regression diagnostics.

Prerequisite: MATH 4435 or equivalent.

STAT 5533: Statistical Computing

Data management, reporting, graphical displays, macros, statistical analysis and interpretation and related topics.

Prerequisite: MATH 4435 or equivalent.

STAT 5534: Sampling Methods

Sampling from finite populations, sampling strategies, estimation procedures including ratio and regression estimation, large scale sample survey methods for quality control and applied research in agriculture, business, social sciences and other fields.

Prerequisite: MATH 4435 or equivalent.

STAT 5535: Experimental Designs and Analysis

Completely randomized design, randomized blocks, Latin squares, factorial experiments, confounding and fractional factorial designs for industrial experiments and applications.

Prerequisite: MATH 4435 or equivalent.

STAT 5537: Statistical Modeling and Methods

Univariate statistical modeling, model-fit tests, model comparisons, logistic models, time series and spectral analysis, non-linear models, bootstrap methods and simulations.

Prerequisite: MATH 4435 or equivalent.

STAT 5631: Reliability and Survival Analysis

Measures of failure, reliability function, failure models, life testing and censoring, system reliability, parameter estimation and testing regression models, Cox proportional hazard models and software reliability.

Prerequisite: MATH 4435 or equivalent.

STAT 5931: Research Topics in Statistics

Identified by specific title each time course is offered.

STAT 5939: Independent Study in Statistics

Prerequisites: Approval of instructor, chair and associate dean.

STAT 6837: Statistics Research and Consulting I

Each student will develop a research proposal which allows integrating statistics knowledge and data analysis procedures. A written proposal will be required.

Prerequisite: STAT 5531 or STAT 5532.

STAT 6838: Statistics Research and Consulting II

Each student will carry out analyses of data and develop inferences. A written paper and a presentation will be required.

Prerequisite: STAT 6837.

STAT 6939: Master's Thesis Research

Prerequisites: Approval of faculty advisor, master's committee and dean.

UNIVERSITY OF HOUSTON SYSTEM

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(Reflects changes through 6/1/10)

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