

2012-2013 **UHCL** GRADUATE CATALOG



The choice is clear.

Courses, Degree Requirements,
Faculty and General Information



University
of Houston
Clear Lake

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.

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

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

Graduate Catalog 2012 - 2013

VOLUME 39

PLEASE VISIT OUR WEBSITE 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 the Quick Reference Guide
are available at:

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

DIRECTORY

	Office	*Phone
Academic Records	S1109	283-2525
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
Counseling Services	S3103	283-2580
Dean of Students	S1201	283-2567
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
Hotline/Building Closures		283-2221
Human Sciences and Humanities, Dean	B1529	283-3300
Academic Affairs	B1529	283-3400
Academic Advising	B1539	283-3333
Intercultural and International Student Services	S1203	283-2575
Library	B2402	283-3900
Math Center	S2101	283-3883
Parking Permits	B1636	283-2222
Pearland Campus		212-1700
Police	B1636	283-2222
Registrar	S1109	283-2525
Scholarships	S1105	283-2480
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	B2523	283-3025
Student Success Center	S3101	283-2643
Student Veterans Services	S1105	283-2480
Support Center	B2300	283-2828
Computing Information	B2300	283-2828
Online Course Support	B2300	283-2828
Media Services	B2300	283-2828
Writing Center	S2105	283-2910

*Area Code for all numbers is 281.

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

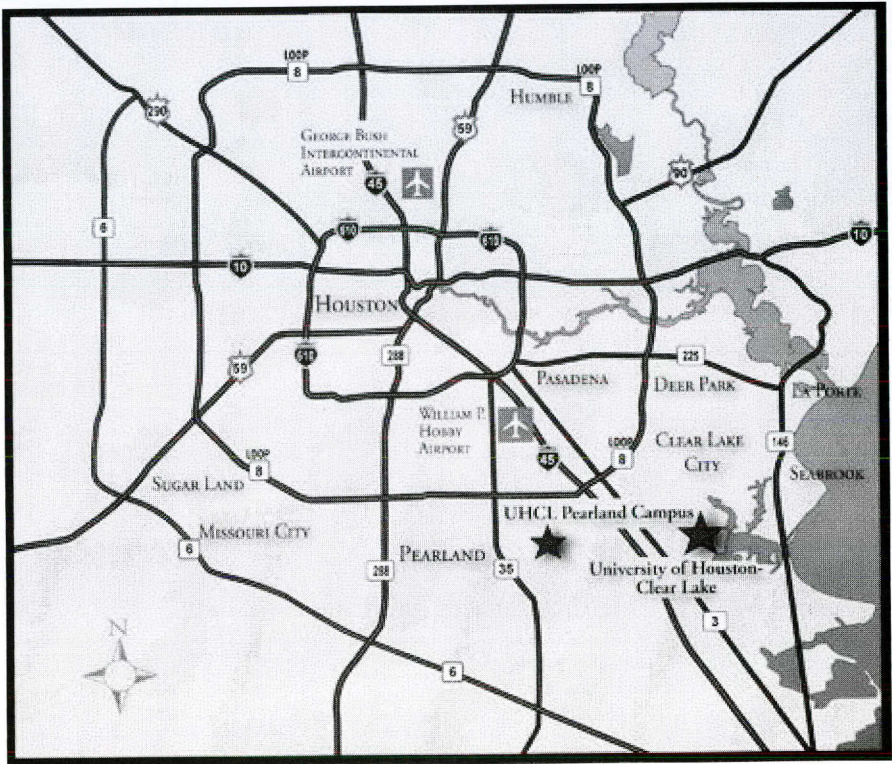
Requests for information should be directed to the offices or persons above.

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."

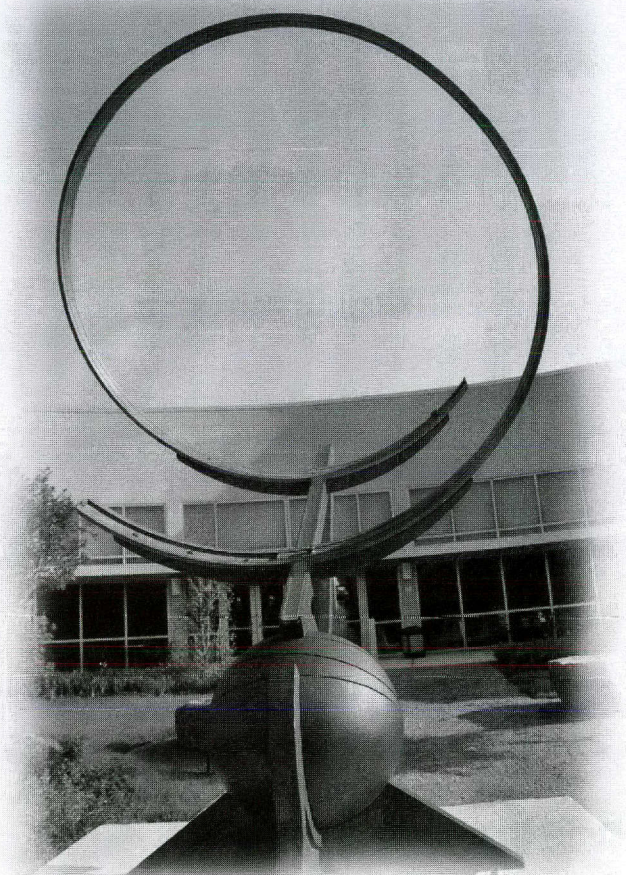
From Highway 146: Travel south on Highway 146 to Fairmont Pkwy. Right on Fairmont Pkwy. to Bay Area Blvd. Left on Bay Area Blvd. to UHCL. Left at Brook Forest Entrance 2. Follow signs to visitor parking, Lot D.

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."

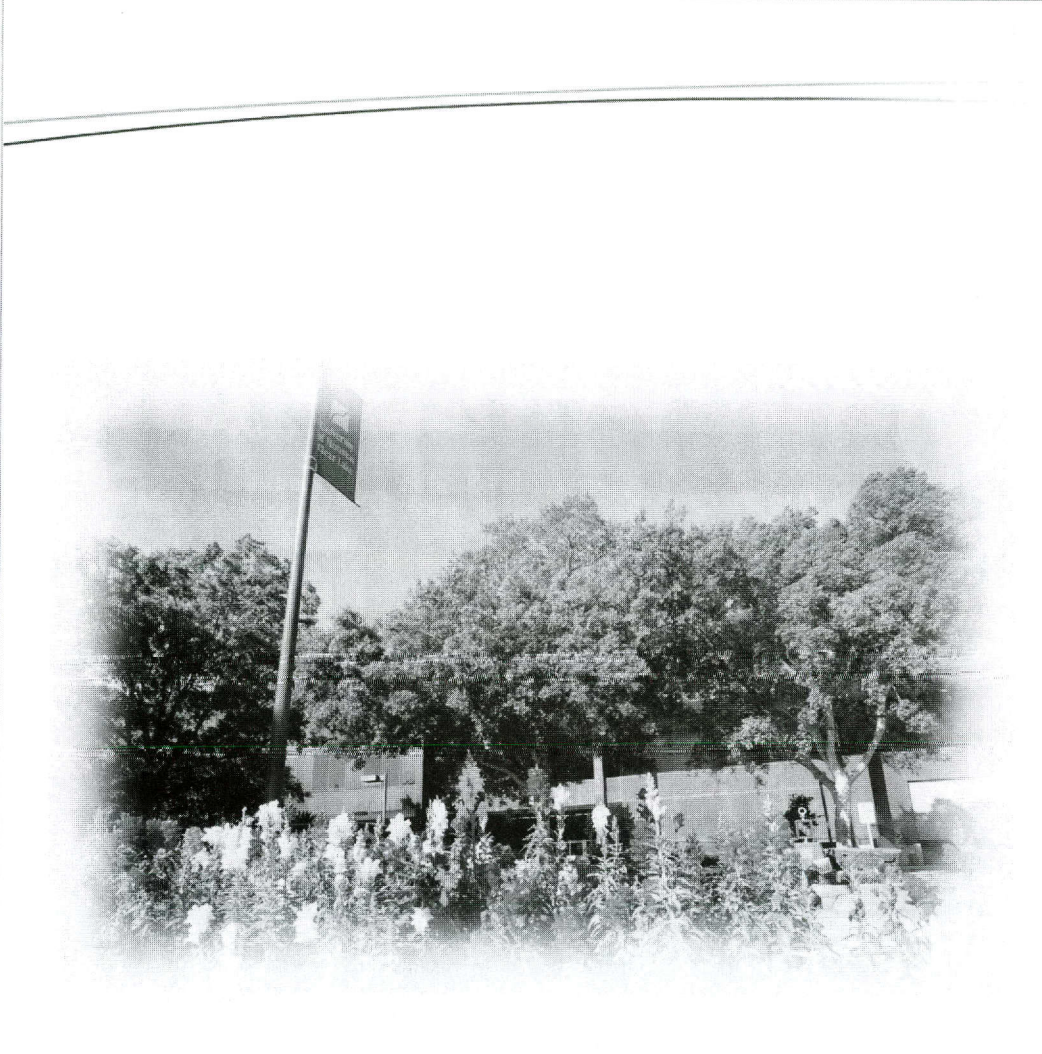
From Highway 6 North: Travel southeast to Hwy. 35. Go north on Hwy. 35 to FM 528. Right on FM 528 to I-45. Follow the directions to "From South on I-45."

CONTENTS

Publication Information.....	Inside Front Cover
Directory.....	2
Directions	3
The University	7
New Student Admissions	15
Financial Aid.....	33
Registration and Records Services.....	43
Student Services	63
General Program Requirements.....	73
Distance and Off-Campus Education.....	93
School of Business	99
School of Business Courses.....	112
School of Education	129
School of Education Courses.....	189
School of Human Sciences and Humanities	209
School of Human Sciences and Humanities Courses.....	244
School of Science and Computer Engineering	267
School of Science and Computer Engineering Courses.....	301
Administration	327
University of Houston-Clear Lake Faculty	330
Index.....	353
Mission and Core Values Statement.....	Inside Back Cover



The Renaissance Focusing Sundial, located in the center of Palmer Plaza at the UHCL Pearland Campus, honors the Palmer Family, who created the first educational endowment specifically for UHCL Pearland Campus students. One of its unique characteristics is the cylindrical base, which features wedges crafted to always form a perfect sphere regardless of how they are rotated. At almost four feet high, the sundial is mounted on a pedestal of stone.



Located on 524 acres in Houston's Bay Area, UHCL has a proud tradition of celebrating the flora and fauna around campus.

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
- Human Performance Institute
- Learning Resources Review Center
- Mathematics Center
- 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 8,000 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. Classes at the satellite campus began fall 2010, with more than 600 students enrolling in degree programs such as accounting, business, criminology, education and psychology.

ACCREDITATIONS

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

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).

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 nonprofit 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, email reference@uhcl.edu or online at www.uhcl.edu/library.

Visitors can receive help formulating effective search queries and identifying the best online resources out of a collection of more than 160 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 524,000 volumes, subscribes to more than 3,000 print journals and provides access to 35,000 electronic periodicals. The library has approximately 1.9 million items in microform, as well as a collection of DVDs and audio books. A curriculum library for education students contains K-12 textbooks, classic and contemporary 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. Individuals may drop in at the center Monday through Thursday, 8 a.m. – 10:30 p.m., Friday and Saturday, 8 a.m. – 5 p.m. in the Bayou Building, room 2300, or contact the center by phone at 281-283-2828 or email at supportcenter@uhcl.edu. Visit www.uhcl.edu/uct for details on available services, including documentation, self-help guides, and policies.

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

- Email accounts
- Various technology orientations and training programs including online software training, student lab orientation, new student, faculty, and staff orientations, computer use training, faculty orientation for classroom technology, and Blackboard training for faculty
- Wireless-equipped laptops may be checked out for free from several convenient locations on campus
- Academic computing labs for students, in multiple locations, open daily including weekends. Printers and photo/document scanners available in all labs. Lab hours and locations can be found at www.uhcl.edu/uct
- Specialized teaching labs including PC labs for students to work in teams, a high-performance PC lab for special graphic application usage, and a Mac lab equipped with 24-inch iMacs for video editing/creating, digital graphics and photography classes
- University classrooms equipped with integrated video and audio technology
- Support for online students using the Blackboard Course Management System
- Support for faculty in instructional design of online courses as well as for web-enhanced instruction

- Webpages 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 analyze assignments and audiences, revise documents by clarifying ideas and structure, and learn stylistic and editing strategies. The Writing Center offers services at the UHCL, Pearland, Sugar Land, and Medical Center campuses, as well as online tutoring for currently registered students. For more information, contact the Writing Center at 281-283-2910, visit www.uhcl.edu/writingcenter, email writingcenter@uhcl.edu, or 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 meaningful 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.

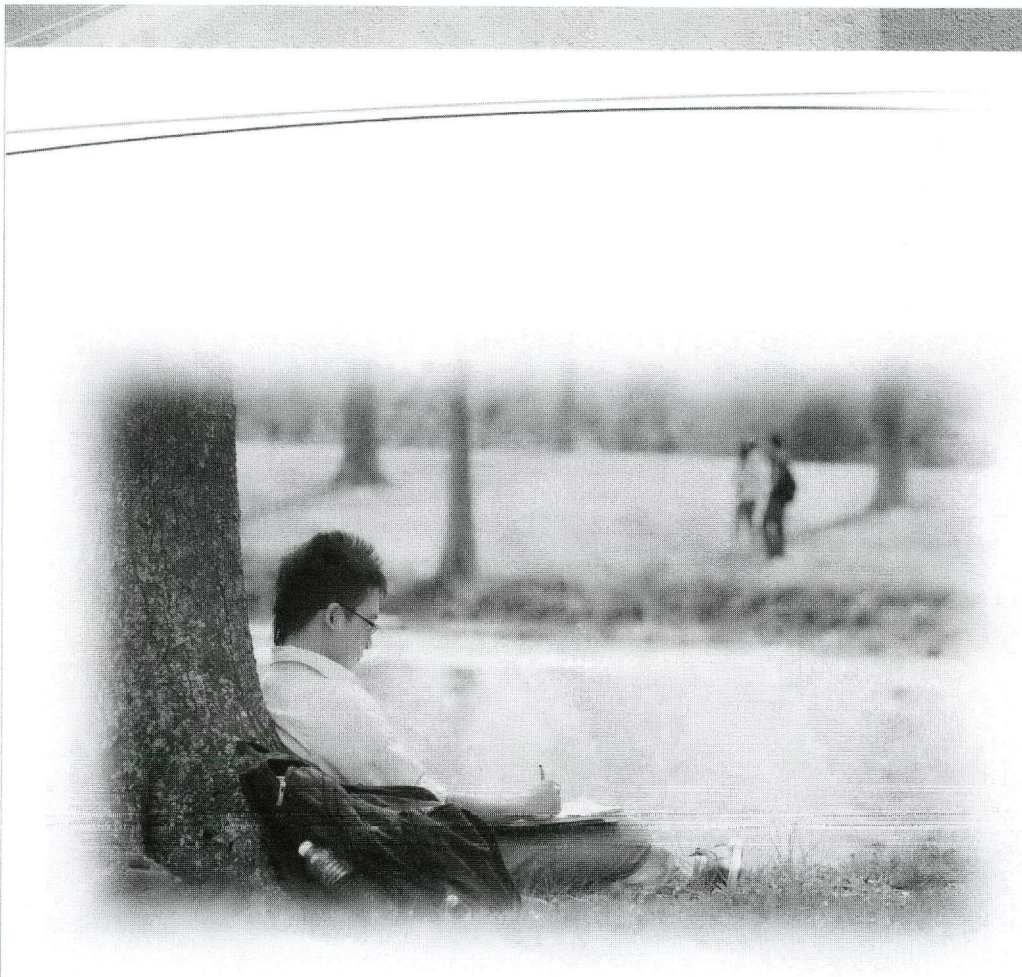
UNIVERSITY POLICE

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. Police and security services are available 24 hours a day, seven days a week. The police business office is open Monday through Thursday from 8 a.m. - 6 p.m. for parking permits and fine payments.

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 closings 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.



Students resources at UHCL include tutoring, math and writing centers, and plenty of beautiful locations for a study session.

NEW STUDENT ADMISSIONS

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

GENERAL INFORMATION

ADMISSION 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 coursework as a non-degree-seeking student; or, they may pursue teacher certification while simultaneously completing a graduate degree program. Some students, such as those admitted as Transients and those admitted to certificate programs can only be admitted 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 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 students 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 or Status Change Process section.
- Former UHCL graduate students interested in returning under a different major: Former graduate students, who are interested in returning under a different major, should apply by the posted deadline for new graduate students.
- Former or current UHCL undergraduate students interested in enrolling in graduate coursework: 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 graduate admission, must apply to the appropriate graduate programs 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 students

- Students applying for admission to academic degree programs.

Non-degree-seeking students

- Students applying for admission for reasons other than the pursuit of a degree, (e.g. personal enrichment, graduate certificates 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 non-degree status will not automatically be applicable to a specific academic degree program. Some graduate level courses are restricted to only degree-seeking students and the number of hours that can be applied to a Candidate Plan of Study (CPS) may be limited. 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 will enroll in a non-degree-seeking status at UHCL for only one semester, generally to transfer coursework to another institution. Transient students must provide all documents required for their appropriate admission category prior to registration. To enroll in a second semester, transient students must submit an additional application and fee to the Office of Admissions. Because the application fee is non-refundable, students should obtain permission from the associate dean of the appropriate academic program prior to submitting a new application.

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

If applicants have not enrolled, they are eligible to update their application within three semesters of filing their original application for admission. To update to a new semester, they should submit an *Application Update Form*. This form can be found on the Office of Admission's website.

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

ADMISSION POLICIES AND PROCEDURES

TRANSCRIPTS, RECORDS AND TRANSFER WORK

Accredited Institutions

It is university policy to transfer course work completed at U.S. colleges and universities and foreign institutions that are recognized by the proper academic accrediting authorities.

U.S. Institutions

All transcripts submitted for admission purposes must be received from a regionally accredited institution. Acceptable institutions are colleges or universities that have 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, biblical 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 also excluded.

International Institutions

All transcripts submitted for admission purposes must be from an accredited institution. The university must be listed among the recognized institutions of the International Association of Universities (UNESCO) or Ministry of Education.

Credit will be granted according to UHCL degree requirements in effect at the time of enrollment. An evaluation for coursework completed outside the United States will not be completed unless an official syllabus or catalog is submitted. An official evaluation for transferring students will be done during the first semester of enrollment.

Documentation for Admission from U.S. 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 issuing institution(s) to the Office of Admissions. Hand-delivered transcripts are only considered official if they are 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 coursework shown on transcripts will not be accepted as an official record of coursework.

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 and completed at other colleges/universities, prior to enrollment. Students should provide official transcripts and/or mark sheets in the original language as well as the English translations (if applicable). 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.

Repeated Transfer Courses

All transferrable coursework attempted (including repeated courses) will be used to determine the cumulative transfer grade point average required for admission to a specific program or plan. However, if transfer courses that fulfill specific UHCL admission and program requirements are repeated, only the final graded attempted will be used for that purpose.

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 documents are submitted to University of Houston-Clear Lake, they become the property of the university and will not be returned or otherwise sent to another institution or entity via email, fax or U.S. mail. 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

Encumbrance holds 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.

This type of financial hold will be applied to 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 the student will be eligible to register at any campus in the University of Houston system.

ADMISSIONS COMMUNICATIONS

Email

The university-assigned campus email address is the official communication vehicle for all student information and exchanges among academic administrative offices. Students are responsible for checking email regularly to ensure they receive important university information in a timely manner. Students have the ability to forward their UHCL email account to a preferred email account. Students interested in this option should visit University Computing and Telecommunications' website for forwarding instructions or contact them by email at supportcenter@uhcl.edu.

Notification of Admission

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

Acceptance into a Degree Program

Acceptance of students into a degree program is determined by each academic school or department's admission standards. Credit earned at UHCL is not automatically counted toward the completion of a degree program. Applicable credit is applied once the Candidate Plan of Study 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:

1. Completed Admissions Application
2. Non-refundable application fee (see *Application Fees*)
3. Official transcript(s) of any coursework completed since the last semester of enrollment at University of Houston-Clear Lake.

Students who graduated or will graduate from UHCL and wish to enroll in additional coursework must submit a new application and the appropriate application fee. To be considered for readmission, former students, who have not been enrolled at UHCL within the last five years, must resubmit documents from other institutions if this information is no longer on file.

Students who leave the university on academic probation will be readmitted on probation. Degree-seeking students whose permission to register was terminated due to aca-

ademic 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 Enrollment Status

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 as degree-seeking and wish to change to non-degree-seeking should complete an Academic Records Change form (ARC), available through their programs academic advising office.

Applicants to the university who applied to either an undergraduate or graduate career and would like to change their career, prior to enrollment, can do so once without submitting a new application by completing an *Application Update Request Form*. For each additional career change, students must reapply and submit a new application fee. Applicants interested in changing their program or degree status within the same career can do so prior to the first day of classes.

ADMISSION REQUIREMENTS

Applicants who have earned a bachelor's degree or higher from an approved regionally accredited institution and are eligible to return to the last institution attended will be considered for admission to University of Houston-Clear Lake. However, admission into the university does not ensure admission into an academic discipline's degree candidacy program. Applicants must meet the separate admission criteria for the specific program or department they wish to enter.

Admission Procedures

All applicants 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 submit:

1. Admissions application. Online applications are available through the *Office of Admission's website*. Some programs have a dual application process and require both a university and a program application.
2. Non-refundable application fee (see *Application Fees*)
3. Official transcript(s) from each institution attended. Transcripts should be sent directly to the Office of Admissions from the previous institution. Transcripts from institutions outside of the United States must be accompanied by an English translation from an accredited agency.
4. Official graduate score report per the requirements of the appropriate academic program or department - Graduate Management Assessment Test (GMAT), Graduate

Records Examination (GRE) or Miller Analogies Test (MAT). All score reports should be sent directly to the Office of Admissions.

Transcripts should reach the Office of Admissions by published deadlines for the semester in which students plan to enroll. If documentation is not received in time or if documentation is received that indicates admission requirements have not been met, encumbrance holds will be placed on student records (see *Encumbrance Holds*). Students who are enrolled at transfer institutions at the time of admission to UHCL and/or who enroll in coursework at other transfer institutions after enrollment should send documentation directly to the Office of Admissions immediately upon the completion of that coursework.

Applicants with Pending Bachelor Degrees

Applicants transferring to University of Houston-Clear Lake or current UHCL undergraduate students applying to a graduate program may be admitted while they are pending receipt of a bachelor's degree. To qualify, students must meet current admission requirements and provide proof that they will earn at least a bachelor's degree prior to the first day of classes at UHCL.

Transfer students:

Applicants transferring to UHCL from another institution must have already completed graduation requirements or be in progress toward courses that will complete graduation requirements at their current school. They must also submit an official Letter of Standing from the associate dean or registrar at their home institution documenting that a bachelor's degree will be awarded. These students must earn their 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:

Current UHCL undergraduate students who apply to graduate programs prior to conferral of a bachelor's degree, must have a pending Graduation Application form on file in the Office of Academic Records. The Office of Admissions will verify that the application for graduation has not been denied prior to admission. Admitted students must earn their bachelor's degree prior to the first day of classes. Those needing additional time to complete requirements for pending undergraduate degrees will be returned to undergraduate status to complete those requirements, before being allowed to enroll in graduate studies.

Non-Degree-Seeking Applicants

Non-degree-seeking graduate students seek to enroll in classes, but do not plan to pursue a degree at University of Houston-Clear Lake. These students must submit an official transcript from the last institution attended and an official transcript showing their highest degree conferred. Credit earned in non-degree-seeking status will not automatically be applicable to a specific academic degree program. Some graduate level courses are also restricted to only degree-seeking students and the number of hours that can be applied to a Candidate Plan of Study (CPS) may be limited.

Non-degree-seeking students, who plan to enroll in graduate coursework in the School of Business, must have permission from the associate dean or appropriate designee prior to registering for classes. For specific program 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 coursework back to their home 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 from the transfer institution a letter of standing indicating the coursework being requested at UHCL.

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 fee to the Office of Admissions. Students enrolling under this option, who subsequently decide to become degree-seeking, must reapply, pay the appropriate application fee, (see *Application Fees*) and meet the university's and academic program's current admission requirements (see *Graduate Studies Applicants*).

Certificate Programs

Applicants who would like to earn a certificate without earning a 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, applicants should check the appropriate program's website to verify score requirements. Since certificate programs are considered non-degree-seeking, students enrolling in these programs are not eligible for either financial aid or Dollars for Scholars awards.

Teacher Certification

Students seeking master's degrees may be simultaneously enrolled in teacher certification programs. Those applying to teacher certification programs without intending to pursue graduate degrees, should apply as undergraduates in post-baccalaureate status. All students are encouraged to seek appropriate advising through their academic department.

GRADUATE TRANSFER CREDIT INFORMATION

Transfer of Graduate Credit

Course equivalencies for all graduate transfer work is determined through students' academic program departments.

Master's degree programs require a minimum of 30 semester credit hours. A minimum of 24 semester credit hours must be earned through instruction at UHCL. No

more than 25% of the semester credit hours required for a graduate degree can be accepted in transfer from other institutions. Therefore, the possibility of transferring credit toward a master's degree is in most cases limited to no more than 6 hours for a master's degree requiring 30 semester credit hours and no more than 9 semester credit for programs requiring 36 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.

Credit applied to a previous graduate degree may not be used to fulfill requirements of a different degree. Additionally, this credit is not necessarily applicable to subsequent degree programs.

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

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 – February 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 (Ed.D.) in Educational Leadership

Fall admission only - March 15

(Both university and program applications are required)

All Other New Graduate Students

Fall - August 1

Spring - December 1

Summer - May 1

EXAMINATIONS FOR GRADUATE CANDIDACIES

All new graduate students must provide standardized test results for 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 different program or academic department may be required to take a different graduate examination, prior to being admitted and must apply by the posted deadline for new 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 as non-degree-seeking are generally exempt from the standardized test requirement (please check the appropriate program's requirements). Non-degree-seeking students who want to change to degree-seeking status are required to meet current admissions requirements and must reapply and pay the application fee.

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 those 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.

Other schools will also waive graduate test requirements as follows:

- School of Business will waive the requirement for applicants who have earned graduate degrees from business schools accredited by AACSB International (Association to Advance Collegiate Schools of Business).
- School of Science and Computer Engineering's graduate acceptance committee may request a Dean's Exemption for applicants who have earned graduate degrees in programs related to their field of study from regionally accredited institutions of higher education.
- School of Human Sciences and Humanities will waive the graduate test requirement for applicants who have earned at least a 3.0 GPA on the last 60 hours of coursework or who hold master's degrees or higher. This exception does not apply for applicants to: Clinical programs (e.g. Clinical Psychology, Family Therapy or School of Psychology) or the Applied Behavior Analysis program.
- School of Education will waive the graduate test requirement for applicants holding bachelor's degrees or higher and have earned at least a 3.0 GPA on the last 60 hours

of coursework or have cumulative GPA's of 3.0. This exception does not apply to the applicants to the Doctor of Education (Ed.D.) 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

Application Deadlines

The application deadline dates for international applicants are as follows:

Transfers from Outside of the US	Semester of Enrollment	Apply By
	Spring	October 1
	Summer	March 1
	Fall	April 1

Transfers from Another US Institution	Semester of Enrollment	Apply By
	Spring	November 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 submitting the following:

1. 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. Non-refundable application fee (see Application Fees)
3. 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. Signed Sponsor's Affidavit
5. Signed Statement of Understanding
6. International Student Adviser's Report (if currently attending an institution in the U.S.)
7. Copy of a current I-94 (front and back) and SEVIS I-20 record for F-1 students (pages 1 and 3) or DS2019 for J-1 students
8. Copy of the photo page of the passport

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, who hold F-1 visas, are not eligible for admission as non-degree-seeking students. They must enroll as degree-seeking in specific degree plans or programs. Although their primary program must be degree-seeking, these students can simultaneously enroll in a secondary non-degree certificate or certification program. International students, who hold J-1 visas, may be admitted in non-degree-seeking status.

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 University of Houston-Clear Lake

- Notify the "transfer-out" school of their intent to transfer by completing a transfer form
- Submit UHCL letter of acceptance to the "transfer-out" school. The "transfer-out" school should then release the SEVIS record to UHCL, prior to the student receiving eligibility to enroll.

International Conditional Admission

International students who meet the university's admission requirements for their chosen degree program, but who have not yet met the English Proficiency requirement, can be conditionally admitted. Please note that conditional admission does not allow registration or enrollment at UHCL. 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, born or educated in countries where English is not the native or first language, must demonstrate English proficiency. The intent of this policy is to insure that students for whom English is not the native or first language have a reasonable chance to succeed academically based on their ability to comprehend, speak, and write in English.

Applicants may satisfy the English proficiency requirement by presenting any of the following:

- Official Test of English as a Foreign Language (TOEFL) scores of 550 or higher on the written exam or 79 or higher on the iBT TOEFL examination,
- An official Pearson Test of English (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 U.S. high school or earned an Associate's of Arts or an Associate's of Science degree from a regionally accredited U.S. 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 U.S. 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.

*Applicants whose native or first languages are not English, but who have earned a bachelor's degree or higher in an English-speaking country, may request consideration for a TOEFL waiver. Those requesting a waiver must submit petitions and supporting documentation to the Office of Admissions at least 30 days prior to the intended term of enrollment. 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, email or fax to the attention of International Admissions. Health insurance waiver requests will be accepted until the census date, which is the twelfth 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 coursework. All F and J visa holders should check the Office of Admissions' website 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. It 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, 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 in 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 and course selections
4. Accurate information regarding degree requirements and degree plans
5. Assistance with evaluation of syllabi/course descriptions to determine acceptability of transfer coursework

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. Identify advisers and the location of the advising offices
3. Contact advisers before deviating from requirements specified on the prepared degree plans
4. Contact advisers for assistance BEFORE any issues become urgent
5. Keep track of academic progress and degree plans each semester
6. Know applicable university and school requirements and policies
7. Learn about and make use of all resources on campus
8. Keep scheduled appointments
9. Follow through on adviser recommendations
10. Plan coursework accordingly in order to fulfill all degree 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:

1. Check to make sure adviser will be available
2. Bring an up-to-date degree plan
3. Have a list of questions and/or concerns so time can be used judiciously
4. Remind adviser of previous discussions

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

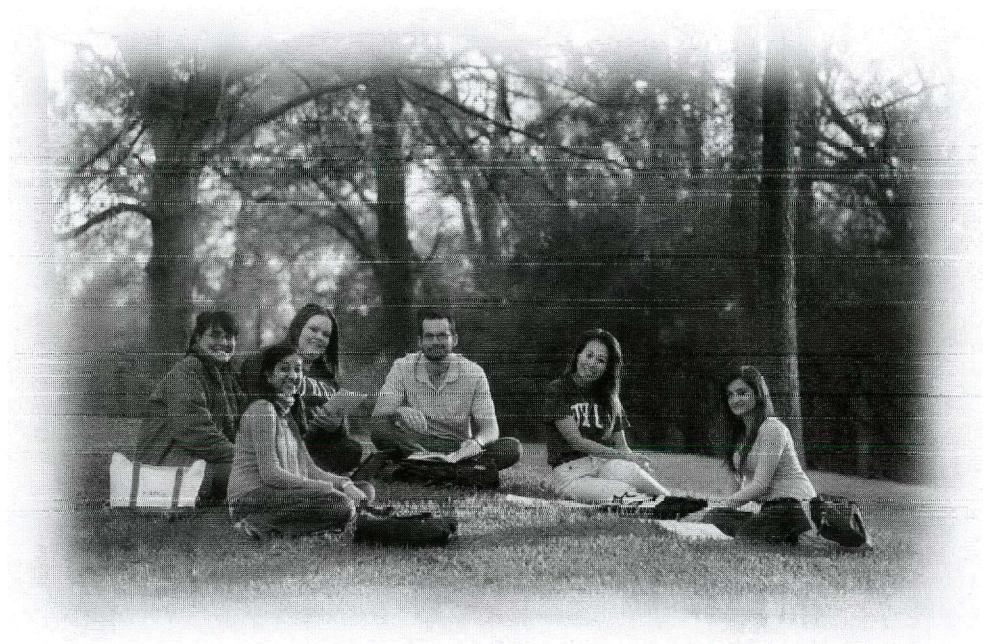
Bayou Building

Office	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)	SSC3109	281 283-2590	www.uhcl.edu/careerservices

*for more information go to www.uhcl.edu/disted



There are more than 60 student organizations at UHCL, focusing on sports, culture, academia and more.

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. UHCL's federal school code is 011711. 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
- Fifth Year Accounting Scholarship
- Resident Graduate Student Assistance Grant
- Federal College Work Study Program (FWSP)
- Texas College Work Study Program (TWSP)
- *Federal Perkins Loan
- Hinson-Hazlewood Loan
- Federal Direct Grad PLUS Loan
- *Federal Direct Unsubsidized Stafford Loan

*All students applying for their first Federal Direct Loan at UHCL must complete entrance loan counseling and the electronic Master Promissory Note (eMPN) at www.studentloans.gov before loan funds can be disbursed.

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

QUALIFYING FOR FINANCIAL AID PROGRAMS

Students must meet these minimum requirements:

- Be a U.S. citizen, U.S. national (includes natives of American Samoa or Swain's Island) or U.S. permanent resident who has an I-151, I-551 or I-551C (Permanent Resident Card)
- Be 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.

- Possess a High School Diploma, GED, Homeschool Completion Record, or equivalent of a high school diploma

APPLYING FOR FINANCIAL AID

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

- 2012-2013 Free Application for Federal Student Aid (FAFSA) available online at www.fafsa.ed.gov.
- If the FAFSA is selected for verification, the student/spouse must either use the IRS Automatic Data Retrieval Tool or provide an IRS Tax Return Transcript. As well as copies of all W-2's for 2011. (Photocopies of a tax form are no longer acceptable.)

Priority deadline is March 15 of each year. Students applying after March 15 can expect the majority of the grant money to be exhausted.

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

AWARDING OF AID

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

UHCL's policy is to award all eligible students based on full-time enrollment. Students will be given the option to update their intended enrollment. However, final awards will be based on actual enrollment. Therefore, eligibility and enrollment must be verified before funds are disbursed to each student's account at the beginning of each semester.

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

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

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

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 preferred e-mail account. Students interested in this option should visit University Computing and Telecommunications' website at www.uhcl.edu/uct.

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

Office of Student Financial Aid

Attn: Executive Director of Financial Aid

Box 5

2400 Bay Area Blvd.

Houston, TX 77058

DISBURSEMENT OF FUNDS

Financial aid disbursements begin approximately 7 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. 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 at the end of each semester. 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 Grade Point Average (GPA) of 3.000 or better.

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", "WQ", "I", "F", and "IP". The percentage derived must be 75% or greater.

Timeframe to Complete Academic Program

First or second master's degree or doctoral degree within a total of 54 UHCL hours.

Students with two or more earned graduate degrees attempting additional graduate degrees will be reviewed on a case-by-case basis after exceeding 54 UHCL hours.

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

Appeal Process for Denial Based on Unsatisfactory Progress

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

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

Appeals are considered for the following reasons:

- Increase in workload at place of employment because of promotion or overtime.

Documentation from the employer may be required.

- Personal illness or serious illness of immediate family members, such as spouse, child, parent, or sibling. Documentation is required. Acceptable forms of documentation include but are not limited to receipts for doctor visits, insurance Explanation of Benefits (EOB), or a note from the doctor.
- Death of a family member. Documentation is required, such as a death certificate, obituary, prayer card, or brochure from the funeral or memorial service.
- Mitigating circumstances. Appropriate support documentation may be required. Each appeal is reviewed on its own merit.

Appeal forms are available 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 credit hours remaining for the student to complete the degree program.

Academic plan forms are available online at www.uhcl.edu/finaid under Online Forms and Services. These forms must be completed with an academic advisor. Students should contribute to the academic plan to ensure success.

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

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

FINANCIAL AID POLICY FOR STUDENTS WITHDRAWING FROM THE UNIVERSITY

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 calendar days in the period of enrollment for which the assistance is awarded be divided into the number of calendar

days completed in that period as of the day the student withdrew. The Office of Student Financial Aid will then determine the amount of money to be returned.

A student who obtains all "F" grades or a combination of withdrawals and "F" grades will be considered an unofficial withdraw. The Office of Student Financial Aid will use the 50% point in the semester to compute the withdrawal calculation. Students who feel they attended past the 50% point of the semester should contact the Office of Student Financial Aid to appeal the date determination.

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

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 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 full-time status. Students can request a package based on enrollment less than full-time. Students who change their enrollment status prior to census day will have their awards reevaluated based on their actual enrollment. Students who received funds based on the original enrollment status 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 can apply for jobs on the Office of Student Financial Aid's website (www.uhcl.edu/finaid).

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.nsls.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.

ENROLLMENT STATUS

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

- Full Time Enrollment=9 hours or more
- Three Quarter Time Enrollment=6 hours to 8 hours
- Half Time Enrollment=3 hours to 5 hours
- Less Than Half Time Enrollment=2 hours or less

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

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

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 (Students have 2 semesters to provide this documentation.)
- Copy of Military Transcripts (Students have 2 semesters to provide this documentation.)

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

SATISFACTORY ACADEMIC PROGRESS FOR VA BENEFITS

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 continue to be on probation.

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 the 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 of 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 Coordinating 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 Veteran Affairs), 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 (Alternatively, the veteran can be listed as a parent on the student's birth certificate.)
- 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.

State VA programs change frequently. Please contact the Office of Student Financial Aid for any program updates.

HAZLEWOOD EXEMPTION DEADLINE

If the student provides his or her eligibility for the Hazlewood Exemption before the end date of each semester, then the institution must honor the waiver. But, all students must turn in a statewide Hazlewood application to their institution by the census date. However, all other supporting documentation can have extensions on them.

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.



UHCL helps students to reach their goals by offering guidance designed to develop leadership and communication skills.

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 sends announcements to specify times and other instructions for completing the enrollment process. Registration is completed online by logging into E-Services at www.uhcl.edu/eservices. Please refer to the Academic Calendar online for Registration dates and deadlines. Students who need assistance with registration may visit the Student Assistance Center at the UHCL campus or Enrollment Services at Pearland. Registration is not complete until tuition and fees have been paid in full. If tuition and fee payments are not received by stated deadlines, payment will be considered late. Additional questions regarding registration should be directed to the Office of 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 deemed insufficient to split into 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, dissertations or residency must be done in person. After the initial semester of registration in

master's thesis, project, internship, dissertations 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.

E-MAIL AS OFFICIAL COMMUNICATION

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

- 1098T
- Set Aside

Students should check their UHCL e-mail accounts regularly to receive information from the Office of Cashier and Collections 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 preferred e-mail account. Students interested in this option should visit University Computing and Telecommunications' website at www.uhcl.edu/uct.

DEFINITIONS AND REGULATIONS

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

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 \$432 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.

Library Use Fee

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

Orientation Fee

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

ID Card

To cover costs of providing ID cards to students.

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 \$85 for an annual permit, or \$50 for each fall and each spring, and \$35 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 academ-

ic 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.

BUS Computer Support Fee

This fee will support School of Business dedicated labs in the SSCB.

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)	904

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 \$84 per semester)	7/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 \$210)	35/hr
Thesis binding, per volume	20
Thesis copyright	55
Thesis publishing by UMI	55
Transcript/Publication	15
Tuition Recovery	130
Writing Center Support	9

PAYMENT PLANS AVAILABLE FOR PAYMENT OF TUITION AND FEES

INSTALLMENT PLAN

At the time of original registration UHCL students may pay their tuition and fees in full or they may elect a four-payment option (one quarter of tuition and fees at time of registration and the remaining balance split in three equal installments). There is a \$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.

Subsequent dates of payments will be listed on the fee statement. Students are responsible for all installment payments being made on time. Additional payment notices are not mailed. A \$10 late fee is charged for each late installment. Students who do not meet installment payment deadlines will have their records encumbered until all fees and penalties have been paid. At semester's end, any students who have not fulfilled their financial obligation on the installment contract will have their records encumbered and no grades or transcripts will be issued. There will be a \$50 default fee attached to the existing debt. In order for students to be eligible for enrollment in subsequent semesters and have the encumbrance removed from their records, all penalties and contract balances must be paid in full.

SHORT TERM LOAN

At the time of original registration at UHCL students may pay their tuition and fees in full or they may elect a two-payment option (one quarter of tuition and fees due at the time of registration and the remaining amount due later in the term. There is a \$15 non-refundable fee for the payment plan. Courses added after the original regis-

tration period will adjust into the payment plan and an additional amount may be due depending on add/drop activity.

Subsequent due date of remaining payment will be listed in the student's E-Services account under the "charges due" tab. Additional payment notices are not mailed.

The Short Term Loan bears a five per cent (5%) interest per annum. Students who do not meet the final payment deadline will have their records encumbered until all fees and penalties have been paid. At semester's end, any students who have not fulfilled their financial obligation on the Short Term Loan contract will have their records encumbered and no grades or transcripts will be issued. In order for students to be eligible for enrollment in subsequent semesters and have the encumbrance removed from their records, all penalties and contract balances must be paid in full.

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.

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 submit-

ted 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.

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.

GOOD NEIGHBOR WAIVER

Qualified native-born students from the other nations of the American hemisphere and from Latin American countries designated by the United States Department of State may be exempt from the payment of certain tuition and fees.

CHILD OF PROTECTIVE SERVICES OR CHILD OF FOSTER CARE OR OTHER RESIDENTIAL CARE

Exemption for payment of tuition and fees for students meeting the qualifications outlined in Texas Education Code 54.366 or 54.367

Tuition and Fee Schedule for Graduate Students

CR HR	RES GRAD	NR/F GRAD	TUI DES GR	TUI DES NR/F GR	ST SVC	P/T	COM USE	LIB
1	100	432	200	239	35	15	16	7
2	200	864	400	478	70	15	32	14
3	300	1,296	600	717	105	15	48	21
4	400	1,728	800	956	140	15	64	28
5	500	2,160	1,000	1,195	175	15	80	35
6	600	2,592	1,200	1,434	210	15	96	42
7	700	3,024	1,400	1,673	210	15	112	49
8	800	3,456	1,600	1,912	210	15	128	56
9	900	3,888	1,800	2,151	210	15	144	63
10	1,000	4,320	2,000	2,390	210	15	160	70
11	1,100	4,752	2,200	2,629	210	15	176	77
12	1,200	5,184	2,400	2,868	210	15	192	84
13	1,300	5,616	2,600	3,107	210	15	192	84
14	1,400	6,048	2,800	3,346	210	15	192	84
15	1,500	6,480	3,000	3,585	210	15	192	84
16	1,600	6,912	3,200	3,824	210	15	192	84
17	1,700	7,344	3,400	4,063	210	15	192	84
18	1,800	7,776	3,600	4,302	210	15	192	84
19	1,900	8,208	3,800	4,541	210	15	192	84
20	2,000	8,640	4,000	4,780	210	15	192	84
21	2,100	9,072	4,200	5,019	210	15	192	84
22	2,200	9,504	4,400	5,258	210	15	192	84
23	2,300	9,936	4,600	5,497	210	15	192	84
24	2,400	10,368	4,800	5,736	210	15	192	84
25	2,500	10,800	5,000	5,975	210	15	192	84
26	2,600	11,232	5,200	6,214	210	15	192	84
27	2,700	11,664	5,400	6,453	210	15	192	84
28	2,800	12,096	5,600	6,692	210	15	192	84
29	2,900	12,528	5,800	6,931	210	15	192	84
30	3,000	12,960	6,000	7,170	210	15	192	84

Fee Schedule Codes

CR HR	Semester Credit Hour	ST SVC	Student Service	EXT ACC	Extended Access Support
RES GRAD	Texas Residents Tuition	P/T	Publication and Transcript Fee	INT EDU	International Education
NR/F GRAD	Non-resident Tuition	COM USE	Computing Fee	ST CENT	Student Center
TUI DES GR	Tuition Designated	LIB	Library Fee	E-SVCS	E-Services
TUI DES NR/F GR	Tuition Designated Non-resident	ID CD	Identification Card	WRT CTR	Writing Center

Tuition and Fee Schedule for Graduate Students (cont'd)

CR HR	ID CD	EXT ACC	INT EDU	ST CENT	E SVCS	WRT CTR	RES GR TOTAL	NR/F GRAD TOTAL
1	3	6	2	30	13	9	436	807
2	3	12	2	30	13	9	800	1,542
3	3	18	2	30	13	9	1,164	2,277
4	3	24	2	30	13	9	1,528	3,012
5	3	30	2	30	13	9	1,892	3,747
6	3	36	2	30	13	9	2,256	4,482
7	3	42	2	30	13	9	2,585	5,182
8	3	48	2	30	13	9	2,914	5,882
9	3	54	2	30	13	9	3,243	6,582
10	3	54	2	30	13	9	3,566	7,276
11	3	54	2	30	13	9	3,889	7,970
12	3	54	2	30	13	9	4,212	8,664
13	3	54	2	30	13	9	4,512	9,335
14	3	54	2	30	13	9	4,812	10,006
15	3	54	2	30	13	9	5,112	10,677
16	3	54	2	30	13	9	5,412	11,348
17	3	54	2	30	13	9	5,712	12,019
18	3	54	2	30	13	9	6,012	12,690
19	3	54	2	30	13	9	6,312	13,361
20	3	54	2	30	13	9	6,612	14,032
21	3	54	2	30	13	9	6,912	14,703
22	3	54	2	30	13	9	7,212	15,374
23	3	54	2	30	13	9	7,512	16,045
24	3	54	2	30	13	9	7,812	16,716
25	3	54	2	30	13	9	8,112	17,387
26	3	54	2	30	13	9	8,412	18,058
27	3	54	2	30	13	9	8,712	18,729
28	3	54	2	30	13	9	9,012	19,400
29	3	54	2	30	13	9	9,312	20,071
30	3	54	2	30	13	9	9,612	20,742

*The table above does not include student insurance, international student fee, special course fees, differential tuition, or parking. The University may change tuition rates and other charges without notice when so directed by the Board of Regents or the State of Texas.

REFUND POLICIES

REFUNDS ON WITHDRAWALS

A student is considered Withdrawn if they are no longer enrolled in the current term. Students receiving financial aid are advised to contact the Office of Financial Aid prior to making changes in their enrollment status. Student services and privileges, including library services and use of computer labs, terminate when a student withdraws from the university. Class days are counted from the first official class day of a semester or session and include weekdays and Saturdays. Refunds will first be applied to outstanding obligations.

Students who pay tuition and fees for any term and who subsequently cancel their registration through the Office of 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. Refunds are based on the amount billed and not what has been paid.

Once a student registers, he or she is responsible for the total fees assessed regardless of whether the installment or short term loan option is used. Refund percentages are applied to total fees assessed and not the amount paid. This means if you withdraw after making your first payment of tuition and fees, but after the 100% withdrawal period, a credit balance will first be applied to any outstanding amount due.

Withdrawal from courses or from the university can be made through E-Services prior to the deadline stated in the academic calendar. Withdrawals in writing are effective on date of receipt. Letters can be faxed to the Office of 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

Dropped courses refunds only apply when one or more classes from a student's schedule are removed but remain enrolled in at least one course. Students receiving financial aid are advised to contact the Office of Financial Aid prior to making changes in their enrollment status. Reducing semester hours to zero is considered a withdrawal and the Refund on Withdrawals schedule will be followed. Please refer to the Refund on Withdrawals section of the catalog.

Students who drop classes within the first 12 class days of a 15-week session; within the first four class days of an 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 with a collection agency, additional collection fees charged, and being 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. Transcript requests can be made online through student E-services, fax or mail. There is no additional charge for a transcript. Transcript requests by fax or by mail must include the name of the student, UHCL student ID, a clear copy of government issued photo ID, 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. Requests without a verifiable signature cannot be processed. Written requests can be mailed to University of Houston-Clear Lake, Office of Academic Records, 2700 Bay Area Boulevard, Houston, Texas 77058-1098 or fax to 281-283-2530. Telephone requests or e-mails will not be honored. For same day requests, please visit the Student Assistance Center on the UHCL campus or at the Enrollment Services counter at the Pearland Campus.

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

UHCL accords all the rights under the law to students who are declared independent. No one outside the institution shall have access to, nor will the institution disclose, any information from students' education records without the written consent of students except 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, 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. To review records, a student must make a request in writing to the Office of Academic Records. The request must identify the record or records he or she wishes to inspect. In compliance with FERPA, UHCL will provide the student's records for review within 45 days from the day the university receives the request.



UHCL is a student-centered university that offers bachelor's, master's and selected doctoral programs to enhance the educational, economic, and cultural environment of the Houston-Galveston metropolitan region.



The Bayou Building and Student Services and Classroom Building feature furnishings and areas perfect for impromptu group study sessions.

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
- Student Success Center
- 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 Handbook. 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 Handbook are available from the offices of the Associate Vice President, Student Life, and Dean of Students, as well as 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 & 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
Student Success Center	SSCB 3101	281-283-2643
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
- Résumé referrals with career services registration
- Online 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. on 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 is 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 ASSISTANCE CENTER

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

STUDENT ADVOCACY

The Office of the Dean of Students provides referrals 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 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 website at www.uhcl.edu/deanofstudents.

HEALTH AND DISABILITY SERVICES

HEALTH SERVICES

The Health Center provides a wide range of professional services to 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, who are available on by appointment only. 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 all students, currently enrolled in 6 or more hours, to obtain the university's student health insurance. Literature detailing the approved health insurance plan is available at the Health Center 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 to 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

IISS provides advocacy, guidance, and support to enhance student success. IISS promotes the retention and empowerment of a diverse student population, including ra-

cial/ethnic groups and first generation, women, lesbian, gay, bisexual, trans-gender, international, and under-represented students. Through educational programs and services, IISS facilitates the growth of culturally competent, respectful, and well-rounded global citizens.

- Student Advocacy - All students seeking general advice or assistance with concerns or problems, may request aid from the IISS staff. The staff serves as an advisory resource to all individuals and groups of students, including under-represented, 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 campus with a variety of cultural programs designed to enhance the campus community members' understanding of different cultural practices, beliefs, 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, who 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

The 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 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 provide advocacy for their needs. These services and pro-

grams 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. The 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 identifies the faculty and staff, who make up the university network of allies. 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

The 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. This training program is intended to foster university-wide awareness and sensitivity to racial and inter-group conflict. Awareness is implemented through the recruitment and training of student leaders, administrators, staff and faculty who address campus issues as a fully empowered team.

STUDENT HOUSING

University Forest is located on campus at the University of Houston-Clear Lake. It is just a short walk to all classes and campus events!

University Forest accommodates a community of 288 students. University Forest offers apartment style living with three floor plans, either private or semi-private, to fit residents' housing needs. Whether you like to cook or eat out, each apartment has a full kitchen equipped with a refrigerator, dishwasher, stove and oven. The housing installment includes wireless internet, furniture (select floor plans), electricity allowance, and water/sewer. There is also access to on-site amenities such as a study room, swimming pool & spa, clubhouse, sand volley ball court, bar-b-que pavilion, and much more within pet-friendly gated community.

University Forest believes its responsibility extends beyond just providing a bed for the residents. University Forest strives to create a total residential living experience that enhances university life and creates a supportive community for residents during a key stage of their personal and educational development. Residents living at University Forest are offered a memorable campus experience where they will have fun, make friends, have access to support when needed, develop life skills and achieve their academic goals.

For more information, please call 281-286-5959 or email: info@universityforestUHCL.com or visit www.universityforestUHCL.com. You can also find us on Facebook: <http://www.facebook.com/UniversityForest>.

STUDENT LIFE

The Office of Student Life provides programs and services designed to enrich and support students' educational experiences through opportunities 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, to 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 Fitness Zone is available to members of the UHCL community. The 3,000 square foot fitness center is located in the Student Services Classroom Building. The Fitness Zone offers a wide variety of aerobic machines and free weight equipment, and also sponsors athletic activities like tournaments and physical education programs.

HONOR SOCIETIES

UHCL's honor societies recognize students' academic excellence and achievement. UHCL honor societies are affiliated with national organizations; students are invited to become members based on the standards recognized these chartering organizations. 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, features, entertainment, and opinion pieces concerning university events and issues. The newspaper serves as a public forum and encourages students, faculty and staff to submit 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.

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 skills 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 designed to building confidence and competence in the classroom.

The Student Success Center works cooperatively across the university (i.e. in conjunction with the 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.

WRITING CENTER

The Writing Center, located in SSCB 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 email response options for currently registered students. For more information, please contact the Writing Center at 281-283-2910 or writingcenter@uhcl.edu.



At UHCL, we value our students and our graduates, with more than 53,000 alumni

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 one doctoral degree and six degrees in 44 graduate majors.

- Doctor of Education (Ed.D.)
- 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)
- Specialized School Psychologist (SSP)

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 (Ed.D.)
- 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 (MS)
- History (MA)
- Humanities (MA)
- Industrial/Organizational Psychology (MA)
- Literature (MA)
- Psychology (MA)
- School Psychology (SSP)
- 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. The above hours requirement may differ for Financial Aid purposes. Please review the section of the catalog on Financial Aid or contact the Office of Student Financial Aid.

RESIDENT CREDIT

Resident credit is defined in two ways:

- Credit awarded for successful completion of academic work undertaken at UHCL or
- Credit awarded for successful completion of academic work undertaken at another college or university provided that
 - Students are candidates for degrees at UHCL and
 - Students have written approval of their faculty 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 Time Frame

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

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

Student-Initiated Withdrawals

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)

The grade point average is a measure of a student's academic achievement. Grade point averages are computed by multiplying the grade point earned by the number of credit

hours in each course, and then dividing the sum of all grade points obtained by the total number of hours attempted. Visit www.uhcl.edu/records for step by step instructions on how to calculate a GPA.

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

Incomplete Grade and Incomplete Grade Contract

A grade of Incomplete ("I") may be given at the discretion of the instructor to students who are making satisfactory progress in a course. Incompletes are typically given for emergency situations which occur after the withdrawal date but prior to the end of the semester, and which prevent the student from completing course requirements. When assigning the grade of "I," instructors provide students with an Incomplete Grade Contract that outlines the work to be accomplished before the "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, Dissertation, 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 or dissertation. 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 or a dissertation 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

As of fall 2008 if students repeat a course, it is with the understanding that the last grade earned in the course is the one counted toward fulfillment of degree requirements and hours earned. Only the hours and grade points earned on the last attempt will be counted in the Grade Point Average (GPA) calculation and in determining academic standing. Any repeated courses where the final attempt was made prior to Fall 2008 will be counted in the GPA calculation and in determining academic standing. With prior approval of the appropriate associate dean, students may repeat courses at another college or university to raise a grade, including "F," earned at UHCL. However, the original grade earned at UHCL will remain a part of the academic record. Courses repeated at other institutions are treated as transfer credit. They will not be considered resident credit and will not be included in the UHCL GPA. Only grades earned on repeated courses taken at UHCL will be counted in the UHCL GPA.

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. 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. Students will be removed from Academic Probation when their semester grade point average is 3.000 or higher and their cumulative grade point average is at or above 3.000. Only course work taken at UHCL will be applied toward the grade point deficiency. Students on academic probation, whose cumulative GPA meets minimum requirements, will remain on probation until all incompletes are resolved. Students who leave the university on academic probation will be readmitted on academic probation. Academic probation will be noted permanently on students' academic records.

Academic 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 re-submit 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 graduate students. A student who is reinstated must undergo mandatory advising and a registration hold will be placed on his/her record until such time that he/she returns to academic good standing. Disciplinary suspensions are not covered by this policy. For details of the UHCL disciplinary policy, see the Student 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 Honest Code on the class syllabus. Instructors should help minimize student temptation to violate the code by enacting adequate security precautions in the preparation, handling and administering of graded work. Instructors are responsible for discussing incidents of alleged violation of the Honesty Code with the student involved, outlining authorized penalties for violation of the Honesty Code and notifying the student's academic dean of record and the Dean of Students when a determination has been made that a student has violated the Honesty Code, regardless of which type of academic sanction the instructor chooses to administer.

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

Section II: Violations

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

1. Acquiring information:
 - a. Acquiring information for any assigned work or examination from any source not authorized by the professor.
 - b. Working with another person or persons on any assignment or examination when not specifically permitted by the instructor.
 - c. Observing the work of other students during any examination.

- d. Using, buying, selling, stealing, soliciting, copying or possessing, in whole or part, the contents of an unadministered examination.
 - e. Purchasing, or otherwise acquiring and submitting as one's own work, any research paper or other writing assignment prepared by others.
 - 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 website and in the Faculty Handbook on-line at

the UHCL . Further policies governing alteration or website misuse of university documents or furnishing false information to university officials may also be found in Student Life Policies or online at the UHCL website.

Records

The dean of students shall retain a copy of all Honesty Code Violation Forms. If the sanction imposed is a final grade penalty, suspension or expulsion, the registrar's office is notified and a record of the notification is maintained in the registrar's office according to the prescribed operating procedures of that office. If the student is found in violation of the Honesty Code and the penalty is anything except suspension or expulsion, the form does not become a part of the student's permanent record or transcript. Instead, it is retained by the dean of students. If the student is found in violation of the Honesty Code and the penalty is suspension or expulsion, the record becomes part of the student's permanent academic file and the notation of "Disciplinary Suspension" or "Disciplinary Expulsion" is placed on the transcript. In the case of suspension, the notation will be removed at the conclusion of the specific suspension period at the written request of the student. In the case of expulsion, the entry is noted permanently.

UNIVERSITY DEGREE REQUIREMENTS

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 Candidate Plan of Study (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 effective 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

Degrees are not awarded automatically upon completion of degree requirements. To be considered a candidate for graduation, the student must submit an online application for graduation via their student E-Services account. Degree candidates must officially apply for graduation within the first three weeks of the semester in which they plan to graduate, but no later than the date specified in the Academic Calendar. Please refer to the Academic Calendar for online graduation application dates and deadlines to avoid additional late fee charges. To be eligible to apply for graduation, students must have completed or be enrolled in the final courses required to meet graduation requirements. A non-refundable fee of \$65 (\$80 for Professional Accounting students) is required by all students who intend to complete their degree regardless if they choose to participate in the commencement ceremony. Degree candidates, who are in two separate programs and anticipate completing the degree requirements for each program, must apply and pay separate non-refundable \$65 graduation application fees for each program. If students do not successfully complete their degree requirements at the close of the semester for which they have applied, they will be required to reapply and pay another \$65 fee during the subsequent semester in which they intend to graduate. As there is no commencement ceremony in the summer, students who graduate in August will be eligible to participate in the December ceremony. Diplomas are mailed after the final approval is received from the graduating student's school. Diplomas are mailed to students 10 to 12 weeks after the end of the semester. Diplomas are mailed to the mailing address on record at the time of graduation. Students who graduate from UHCL must complete a new application and pay \$35 in order to continue taking classes.



UHCL proudly offers a variety of accredited degree plans to meet the diverse academic goals of our students.



Our Texas Medical Center campus is located in the largest medical center in the world.

DISTANCE AND OFF-CAMPUS EDUCATION

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

GENERAL INFORMATION

In an attempt to meet the need for flexibility, the university offers classes in a variety of formats and at several convenient locations. Students can opt to complete a selected 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 pre-requisites 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 offers courses for selected master's degree programs at off-campus learning centers. Courses at our off-campus learning centers may be offered face-to-face in a traditional classroom, or as a Web enhanced class. UHCL is committed to using the most current instructional techniques to ensure comparable learning outcomes between coursework 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. Program options at different off-campus locations and for master's degrees offered online are listed on the application and in the catalog.

SCHEDULE OF CLASSES

Each semester, students have the ability to review course offerings via the online search engine on the UHCL website. 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 website 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 for on-campus students. All forms, complete list of scholarships, timelines and instructions are available online at the Financial Aid website. Financial assistance is available to distance education students, as it would be for on-campus students. Please refer to www.uhcl.edu/finaid for more information.

STUDENT SERVICES

The 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, tele-

phone or email. Academic advising is available at each of our off-campus locations. To schedule an appointment, please call 281-283-3031.

UHCL also provides student services to off-campus and online students. For assistance in accessing these services, call the DE office or the Student Assistance Center at 281-283-2722. Examples of these services are:

- Student photo IDs available at off-campus locations
- Academic advising for students in online programs
- Career exploration online and at the UHCL Pearland Campus
- Online tutors in writing and specific content areas. Tutoring is also available at the UHCL Pearland Campus and Texas Medical Center.
- Online Bookstore
- Online Course Support
- Online study skills assessment
- General university information, via email and phone from the Student Assistance Center (SAC)
- Online access to the student news publication, *The Signal*
- Access to the Intercultural & International Student Services' (IISS) online resources, such as the International Student Handbook
- Disability services, available both online and off-campus
- Virtual Library services
- Counseling information available online and personal counseling available at the UHCL Pearland Campus.

Additionally, UHCL email is the official method of communication between the university and students. Students will receive official UHCL notifications (i.e. financial aid award packages) through their UHCL email accounts. Students are responsible for checking email regularly to ensure they receive important university information in a timely manner. Students who choose to use email addresses other than the one assigned to them by University of Houston-Clear Lake must log in to E-Services and forward their UHCL email to another valid email account to ensure access to important information and requests.

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 Environmental Science
- 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.

UHCL also offers the following certificates:

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

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



Prospective student events like the MBA Morning Mixer are geared toward introducing future UHCL students to faculty members like Professor of Marketing Jean Walker.

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
website	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. 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 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
ECON 5031	Economic Principles
FINC 5031	Financial Analysis & Markets
ISAM 5030	Fundamentals of Application Programming ^{1,3}
MGMT 5032	Human Behavior in Organizations ^{2,3}
MKTG 5031	Marketing Management ^{2,3}

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 ethics 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 and Pass Through Entity Taxation
ACCT 5332	Accounting Information Systems
ACCT 5431	Advanced Accounting
ACCT 5432	Accounting for Government & Not-for-Profit
ACCT 6732	Seminar in Fraud Examination and Audit Risk
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 Application 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	Managerial Economics
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-Leadership

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

MGMT 5233	Entrepreneurship & Corporate Venturing
MGMT 5636	Management of Technology
MGMT 5638	Leading Technology

One of the following courses (3 hours):

MGMT 5931	Topic: Positive Leadership & Ethical Action
MGMT 6237	Comparative Leadership
EMGT 5430	Professional Project Management
MGMT 5931	Topic: MOT in title

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	Managerial Economics
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 5235	Project Management in HMRS
HMRS 5433	Compensation and Benefits
HMRS 5435	Employee Planning, Staffing and Selection
HMRS 5437	Human Resource Information Systems
HMRS 5531	Training and Development
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 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 Master of Science in Management Information Systems degree curriculum is designed to prepare students for careers in the information systems field such as system analyst, business applications developer, computer networks designer and administrator, database applications developer and administrator, systems administrator, and web applications developer. The degree coursework is comprised of courses in areas

that include web applications design and development; database design, development and administration; computer networks design and administration; computer networks security; wireless networking; Windows administration; data warehousing and mining; project management; and business applications programming. The students also complete a number of IT industry-recognized certifications as part of the coursework.

Plan requirements consist of these courses (30 hours):

ISAM 5330	Management Information Systems
ISAM 5331	Fundamentals of Database Design & Development
ISAM 5335	Advanced Applications Development in Visual Basic
ISAM 5337	Internet Applications Development
ISAM 5338	Advanced Internet Applications Development
ISAM 5339	Fundamentals of Computer Networking
ISAM 5340	Advanced Applications Development with C#
ISAM 5632	Advanced Database Applications Development
ISAM 5635	Systems Analysis & Design
ISAM 5636	Advanced Computer Networking

Elective Requirements (6 hours)

ISAM Elective (6 hours) excluding ISAM 5030

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 5335	Advanced Applications Development with Visual Basic
ISAM 5337	Internet Applications Development
ISAM 5338	Advanced Internet Applications Development
ISAM 5340	Advanced Applications Development with C#
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 5437	Wireless Networks
ISAM 5439	Computer Network Security
ISAM 5636	Advanced Computer Networking
ISAM 5731	Information Systems Audit & Security

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 5329	Management of Information Technology
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	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 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 5234	Leading Non-Profit Organizations
MGMT 5434	Negotiation Skills and Strategies
MGMT 5636	Management of Technology
MGMT 5638	Leading Technology
MGMT 6237	Comparative Leadership
MGMT 6331	Organizational Development
MGMT 6332	International Business Management

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. No more than two courses or 6 hours at the 3000- or 4000-level may be included.

Environmental Management Certificate Program Requirements

The certificate program is available in Environmental Management. The certificate is designed for professionals in the environmental management field who wish to update their skills without going for another master's degree.

Certificates can be earned as part of a master's degree or as a stand-alone certificate. 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. All graduate admissions requirements must be met prior to any certificate credit will be applied to a master's degree. 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.

Environmental Management

Required courses (12 hours):

ENVR 5332	Environmental Law
Three additional graduate level ENVR courses (9 hours)	

Additionally, students must complete ONE of the following courses:

MGMT 5032	Human Behavior in Organizations
PPRM 5131	The Study of Administration

This requirement may be waived for students who demonstrate previous completion of an approved upper-level course in (1) Management Theory & Practice, (2) Organizational Behavior, or (3) Public Administration.

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 Management

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

¹ Student can select either HADM 5531 Group Practice Management or HADM 6236 Hospital Operations.

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 Management

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.

Prerequisite: ACCT 5031 or equivalent.

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 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 and Pass Through Entity Taxation

This course addresses entity level taxation including: corporations, partnerships, limited liability companies, limited liability partnerships, S corporations, and fiduciaries. The course examines the link between the accounting information reported for financial statement purposes and the information reported on business tax returns.

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

Course discusses the conceptual aspects of accounting systems and how they are used in the managerial decision-making process; includes discussion and applications of basic business processes and documentation of those processes in the context of internal controls (e.g., identifying risks and controls in information systems). Course includes hands-on experience in flowcharting software, spreadsheets, accounting software, database software, and generalized auditing software (IDEA).

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. (Cross-listed 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

Discussion of the audit process, internal controls as they relate to technology, and business process documentation. Study of business processes, deployment and management of technology resources, risk assessment and change management, IT networks, and IT governance. Extensive hands-on experience detecting fraud using generalized audit software (IDEA). Discussion of computer forensics and other current topics related to IT security. Written communication skills are emphasized through the preparation of audit reports based on findings from fraud detection assignments. Covers topics tested in the Certified Information Systems Auditor (CISA) exam. (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

This course addresses the current status of the international financial reporting standards (IFRS) and is designed to examine both managerial and financial reporting issues that arise when multinational enterprises report under IFRS or other national financial reporting regimes. The approach is from the user's perspective. Multinational challenges encountered in analyzing financial statements, such as currency translation issues, are addressed.

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 Statement and Accounting Information Quality Analysis

The course is designed to provide students with a theoretical and practical framework to analyze financial accounting information provided by management and to understand how various financial reporting strategies affect the quality of accounting information and the value of firms using a variety of analytical tools.

Prerequisite: ACCT 5134 or equivalent.

ACCT 6732: Seminar in Fraud Examination and Audit Risk

Principles, analysis, and application of concepts related to fraud examination, fraud detection, and fraud deterrence. Current issues related to audit risk assessment and planning are also included.

Prerequisites: ACCT 5137 or equivalent, 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 5931: Research Topics in Decision Sciences

Identified by specific title each time course is offered.

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: Managerial Economics

Application of microeconomics theory to managerial decision making. Topics may include demand analysis, cost analysis, market structure and their relation to pricing, product choice, resource allocation and industrial organization.

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 5437: Managing Environmental and Ethical Issues

This course addresses a variety of issues related to ethical and environmental matters, and approaches for managing them. It will include an introduction to environmental ethics, and also examine several cases where ethical and/or environmental issues were managed both poorly and well.

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 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 5235: Project Management for HMRS

This course provides students with the tools for planning, setting budgets, tracking progress, and assessing the results of a human resource management project, including organizing project teams and using human resource metrics. This course has been designed to prepare students to introduce new HR initiatives, implement new development programs, "sell" new HR requirements, and institute new systems. Through basic Project Management skills, students will be able to create a sustained desired change, to learn and apply Intentional Change Theory, and to implement communication strategies developed through an understanding of multi-level complex systems.

HMRS 5433: Compensation and Benefits

Review and analysis of traditional and nontraditional compensation benefit systems.

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: 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 MANAGEMENT COURSES

ISAM 5030: Fundamentals of Application Programming

This course introduces fundamental principles in business application programming using a high-level, business-oriented language. It includes topics in programming logic, design methodologies, graphical user interface programming and handling files. It also covers an introduction to object-oriented programming concepts.

Includes numerous hands-on assignments. (Cannot be taken as ISAM or BUS elective. May not be taken as graduate elective credit by any BUS student.)

ISAM 5329: Management of Information Technology

The course examines the key principles of managing an IT organization to increase its efficiency and effectiveness. It covers the process based IT management approaches of ISO 20000 standard and IT Infrastructure Library (ITIL) framework. Students learn the concepts of IT Service Desk and Incident, Problem, Configuration, Change and Release Management. This course also prepares students for ITSM-ITIL V3 foundations certification. (Previously ISAM 5631; Credit may not be received for both ISAM 5631 and ISAM 5329.)

ISAM 5331: Fundamentals of Database Design and Development

The topics covered include the following: database concepts such as database models, modeling techniques and normalization; design, development, and maintenance of a relational database; and formulation of commands to insert and update data, retrieve information, and generate reports from a database. Includes numerous hands-on assignments. (Cross-listed with ACCT 5333)

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

ISAM 5332: Data Warehousing and Data Mining

The course provides the knowledge and skills to design and develop a data warehouse as well as extract strategic business intelligence through the application of data mining tools and techniques. It examines phases of the data warehouse design process, and data aggregation. Includes numerous hands-on assignments.

Prerequisite: ISAM 5331 or equivalent.

ISAM 5335: Advanced Applications Development with Visual Basic

The course covers concepts, tools and techniques used in developing Windows-based applications. It also presents structured programming, object-oriented programming and the use of graphical user interfaces. Includes numerous programming assignments. The coursework requirements also include a VB-based Microsoft professional certification.

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

ISAM 5337: Internet Applications Development

Design and development of business-oriented web applications using modern web technology standards, languages, and tools. Topics include markup languages, style, client-side scripts and site design techniques. Includes numerous hands-on assignments.

ISAM 5338: Advanced Internet Applications Development

An advanced-level course on the design and development of client-server web applications using current web technology standards, languages, and tools. Topics include: client-side scripts, server-side processing, web form processing, authentication and security, and the use of databases. Includes numerous hands-on assignments. Completion of a professional certification exam is a required part of the course.

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

ISAM 5339: Fundamentals of Computer Networking

The course introduces OSI and TCP/IP layered architectures and provides a detailed coverage of protocols in data link, network, transport and application layers. It gives a thorough coverage of addressing concepts and methodologies in computer networks, provides a detailed discussion of switched Ethernet networks, VLANs and the Spanning Tree Protocol. Includes numerous laboratory experiments using state-of-the-art computer networking equipment.

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

ISAM 5340: Advanced Application Development with C#

This course covers the following topics: application design and development using object-oriented techniques, the management of data, memory and other application resources, application communication and presentation concepts, and deployment, security and networking issues in applications. Completion of a professional certification exam is a required part of the course. Formerly ISAM 5334; Credit may not be received for both ISAM 5334 and ISAM 5340.

Prerequisite: ISAM 5030 or 6 hours of college-level programming courses. Also, ISAM 5335 is recommended but not required prerequisite.

ISAM 5431: ERP System Concepts and Practices

This course examines the integrated nature of business processes and how ERP systems can be configured to handle those processes. Students receive hands-on experience using SAP's current enterprise software.

Prerequisite: Graduate Standing.

ISAM 5437: Wireless Networks

This course covers wireless network technologies used in computer networking. The topics covered includes wireless standards, radio frequency fundamentals, antennas, wireless encoding techniques, wireless LAN topologies, wireless MAC architecture, design, troubleshooting and security of wireless networks. The course includes numerous hands-on experiments using state-of-the-art equipment. The course requires the completion of professional certification.

Prerequisite: ISAM 5339 or equivalent.

ISAM 5439: Computer Network Security

The course covers security threats to computers and computer networks and methods to counter security threats including network firewalls; and designing, deploying and administering firewalls in IT organizations. Various firewall concepts such as VPNs, DMZs, NAT and intrusion detection methods are also explained. Includes numerous hands-on laboratory experiments using state-of-the-art firewall systems.

Prerequisite: ISAM 5339.

ISAM 5531: Client/Server System Administration

The course covers key concepts of client-server technologies and their applications. It includes skills to deploy and administer client-server systems, installation and configuration of UNIX based server systems, user administration, file systems, and network administration. Includes numerous hands-on experiments using UNIX based servers.

Prerequisite: ISAM 5339 or equivalent.

ISAM 5632: Advanced Database Applications Development

The course covers advanced commands and techniques to: design, develop and maintain a database; insert and update data in a database; retrieve information and generate reports; and develop and implement database objects to manage, control and administer database processing. Includes numerous hands-on assignments. The coursework requirements also include Oracle SQL and Oracle PL/SQL certification.

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 architecture of an Oracle database, installing Oracle database management system, creating a database, creating and managing database users and roles, database backup and recovery, database performance tuning and database administration. Includes numerous hands-on assignments.

Prerequisite: ISAM 5632 or equivalent.

ISAM 5635: Systems Analysis and Design

This course provides a step-by-step approach to developing computer-based information systems. It covers topics such as systems development life cycle; systems development methodologies; system requirements determination and analysis; user-interface design; programs design; and system architecture. The course includes a comprehensive group project and numerous hands-on assignments using project management and computer-aided software engineering tools. (Cross-listed with ACCT 5336)

Prerequisite: ISAM 5330, ISAM 5331 or equivalents.

ISAM 5636: Advanced Computer Networking

The course covers skills to design and administer computer networks. It includes network routing protocols, packet filtering concepts, network and port address translation methods, wireless networks, new generation IP addressing, and wide area network protocols. Includes numerous hands-on lab experiments using state-of-the-art equipment. The course requirements include CCNA certification.

Prerequisite: ISAM 5339 or equivalent.

ISAM 5637: Information Systems Project Management

This course covers the concepts, tools and techniques used in managing information systems projects. It includes project integration, scope, time, cost, quality, human resources, communication, risk and procurement management. Includes a comprehensive group project using current information systems software tools.

Prerequisite: Graduate standing.

ISAM 5638: Advanced Applications Programming With Java

This course covers object-oriented programming using the Java programming language. It presents topics such as design methodologies, graphical user interface programming, applets, handling exceptions and I/O streams. Includes numerous hands-on programming assignments.

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

ISAM 5639: SQL Server Database Administration

This course covers the architecture of a SQL Server database management system, creating a database, creating and managing database users and roles, database backup and recovery, database performance tuning and database administration. Includes numerous hands-on assignments.

Prerequisite: ISAM 5331 or equivalent.

ISAM 5731: Information Systems Audit and Security

Discussion of the audit process, internal controls as they relate to technology, and business process documentation. Study of business processes, deployment and management of technology resources, risk assessment and change management, IT networks, and IT governance. Extensive hands-on experience detecting fraud using generalized audit software (IDEA). Discussion of computer forensics and other current topics related to IT security. Written communication skills are emphasized through the preparation of audit reports based on findings from fraud detection assignments. Covers topics tested in the Certified Information Systems Auditor (CISA) exam. (Cross-listed with ACCT 5335)

Prerequisite: ISAM 5330 or equivalent.

ISAM 5732: Fundamentals of Windows Administration

This course covers Windows server administration tasks such as user, file and printer administration. The course explains integrating server and client platforms to build domains. It also includes domain design, trees, forests, registry management and performance management. Includes numerous hands-on lab experiments using Windows-based platforms.

Prerequisite: ISAM 5339 or equivalent.

ISAM 5733: Advanced Windows Administration

The course focuses on building and deploying application servers using Windows client-server technologies. It includes Windows server maintenance and tuning concepts, active directory design and operation, and deploying Windows-based servers such as DHCP, DNS, email, web, and FTP servers. Includes numerous hands-on lab assignments.

Prerequisite: ISAM 5732 or equivalent.

ISAM 5931: Research Topics in Management Information Systems

Identified by specific title each time course is offered.

ISAM 5939: Independent Studies in Management 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 5233: Entrepreneurship & Corporate Venturing

This capstone course is based on the premise that new ventures are a continuous source of radical or disruptive innovations in the United States. Technology entrepreneurship, whether in a start-up or established company, involves identifying high-growth potential, technology-intensive commercial opportunities, acquiring human and financial resources, and navigating uncertainty. This course offers students two entrepreneurial perspectives: new firm and intra-preneurship (e.g., corporate venturing). From the new firm perspective, students will examine how to identify and evaluate technological opportunities, form new ventures, and manage them.

From the corporate venturing perspective, students will learn opportunity and feasibility analyses, how to structure the new venture, and manage high-growth projects. The goal of this course is to provide students with the tools to develop a successful business plan, build a start-up team, finance the venture, and lead the process of turning the opportunity into a reality.

MGMT 5234: Leading Non-Profit Institutions

This course will cover leadership in non-profit organizations. Topics include transformational leadership, communicating vision, enrollment, attentive listening, evaluating programs, and acknowledgement and appreciation.

MGMT 5238: Gender and Diversity Issues in Leadership

This course responds to recent demographic changes and opportunities presented by a diverse workforce. The challenges faced by organizational leaders on how to effectively manage a workforce that is increasingly diverse along the lines of race, ethnicity, gender, physical ability, cultural background, and age will be emphasized.

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 5434: Negotiation Skills and Strategies

This course provides a basic foundation in negotiation theory and practice. Analytical and interpersonal competencies are honed in the context of negotiation simulations and discussions using a variety of settings and media while reflecting on the global context of negotiations that routinely take place within (and between) organizations. Includes the development of a "Negotiation Dossier" that students would routinely compile in preparation for a typical negotiation in their chosen field.

MGMT 5437: International Leadership and Influence

This course will focus on the similarities and differences in leadership processes as a function of national origin, language, and dimensions of culture as inhibitors and driving forces of effective leadership in global organizations.

MGMT 5439: Positive Leadership and Ethical Action

This course explores the impact of emerging areas of positive psychology, positive organizational behavior, and positive organizational scholarship on the field of leadership, and how attributes of positive leadership influence leaders' ethical actions and decision-making.

Prerequisite: MGMT 5032.

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: Leading Technology

This course will focus on the necessary leadership requirements and strategies to lead scientific and commercial projects. It focuses upon leadership capacities in the selection, development, and the effective management of scientists, engineers, biomedical personnel, and technical professionals. Topics will include leading change, top level project leadership, and organizational behavior and enterprise management principles applicable to science and technology.

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 Management

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 5435: E-Marketing Management

An investigation of the strategic role of the Internet in an organization's marketing plan, with an emphasis on the various business models that firms may choose for improving corporate profitability and communicating with stakeholders.

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.

MKTG 6739: Internship in Marketing

Supervised work experience in an approved business, non-profit or governmental agency. Written work is required by sponsoring faculty member.

Prerequisites: Master's degree candidacy and approval of sponsoring faculty member, Faculty Chair and Associate Dean.

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.



At campus events, faculty members are always around to talk about their academic programs and opportunities available to students.



Assistant Professor of Educational Leadership and Program Coordinator of Administration and Supervision Bettye L. Grigsby made time to speak with prospective students at a recent UHCL Open House.

SCHOOL OF EDUCATION

- Doctor of Education (Ed.D.)
 - Educational Leadership
- Master of Science (M.S.)
 - Counseling
 - Curriculum and Instruction
 - Early Childhood Education
 - Educational Management
 - Instructional Design and 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
 - Distance Education
 - 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 University of Houston-Clear Lake (UHCL) is accredited by the National Council for Accreditation of Teacher Education (NCATE).

	Office	Phone
School of Education (SoE)	Bayou 1231	281-283-3600
Center for Professional Development of Teachers (CPDT)	Bayou 1231	281-283-3612
Center for Educational Programs (CEP)	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	

The SoE believes 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 should be on the learner. This conceptual framework guides the way in which the SoE structures its courses and

degree plans. This is reflected in the SoE Mission Statement quoted below. It is also the central theme reinforced in classes. The vision of the SoE is a learner-centered community in which success for all students is paramount.

The mission of the SoE is to prepare outstanding educators and leaders in education through achievement of the highest standards of knowledge, skills and dispositions to assist all students in learning. The mission is accomplished by promoting:

1. Excellence and innovation in learner-centered teaching and learning for all
2. The value and understanding of all types of diversity
3. Professional and personal integrity
4. Effective use of technologies
5. Partnerships with and service to the community
6. Ongoing assessment for both candidate and program improvement
7. Research to expand the knowledge base for teaching and learning

Although each of these is critically central to the goals and directions of the SoE at UHCL, the first, "...promoting excellence and innovation in learner-centered teaching and learning for all...", is the most succinct statement of what the faculty within the SoE value.

ACCOUNTABILITY AND ACCREDITATION

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 the 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, the Texas Education Agency (TEA) collects all data for Title II.

The pass rates for those who completed their teacher certification at UHCL during the 2009-2010 academic year were evaluated and compared to the pass rates of the state and national groups of program completers. At UHCL, our students from the 2009-2010 cohort had an overall passing rate of 98% on all of their state assessments.

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>.

NCATE ACCREDITATION

The National Council for Accreditation of Teacher Education (NCATE) is the largest and most recognized accrediting body for teacher education in the United States. University of Houston-Clear Lake (UHCL) 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

University of Houston-Clear Lake (UHCL) is one of 160 educator preparation programs in the State of Texas that are accredited to recommend educators for certificates. The State Board for Educator Certification (SBEC)/Texas Education Agency (TEA) implements stringent guidelines and standards for initial and advanced levels of educator certification. These standards are evaluated according to UHCL students' rate of performance on the SBEC/TEA state assessments. The TEA's last announcement of UHCL's overall final pass rate on all state assessments was 98%.

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

POLICY ON PROFESSIONAL DISPOSITIONS

Students who are seeking teacher certification or who are enrolled in the School of Education (SoE) are required to read "The Statement on Professional Dispositions," which defines the behavioral standards the SoE expects of its students. Just as students may be withdrawn from their program for not meeting the academic requirements, they may also be withdrawn 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 (SoE) Course Roster, there are many courses which have descriptions ending 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. For information on the Code of Ethics for Texas educators, refer to the Texas Administrative Code Web site:

[http://www.info.sos.state.tx.us/pls/pub/readtac.\\$ext.ViewTAC?tac_view=4&ti=19&pt=7&ch=247](http://www.info.sos.state.tx.us/pls/pub/readtac.$ext.ViewTAC?tac_view=4&ti=19&pt=7&ch=247).

The Texas Education Agency (TEA) offers Preliminary Criminal History Reviews for Educator Certification Candidates for a non-refundable fee of \$150.00. This service allows those individuals who are contemplating obtaining a Texas Teacher Certificate in the future the opportunity to have a review of an existing criminal history performed by agency staff. The review is based solely on information provided by the candidate and will result in a non-binding opinion issued by the agency as to whether or not the candidate would be eligible for Texas teacher certification at the time of the evaluation. The process does not preclude a candidate from being required to submit to a national criminal history review as required by statute at the time of application for educator credentials. For more detailed information for the service, including all necessary forms and instructions, visit the following link for Frequently Asked Questions on the TEA Web site <http://www.tea.state.tx.us/index2.aspx?id=2147486679>.

CENTERS AND OFFICES

CENTER FOR PROFESSIONAL DEVELOPMENT OF TEACHERS (CPDT)

The School of Education (SoE) has been designated as a Center for Professional Development of Teachers (CPDT). The teacher preparation plan has been restructured to provide extensive school-based experiences for prospective educators. These expanded experiences include a two-semester internship, field-based courses and close cooperation with a number of schools, which have been designated as Professional Development School (PDS) sites. These sites operate under the philosophy that every staff member is a mentor, providing a rich and supportive environment for the preparation of professional educators. The CPDT coordinates field experiences and works with the Center for Educational Programs (CEP) in providing a wide array of profes-

sional 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. Fifty-five schools have been designated as PDSs 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/practicum placement and field experiences.

PROFESSIONAL DEVELOPMENT LABORATORY SCHOOL (PDLS)

University of Houston-Clear Lake (UHCL) and 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 McWhirter Elementary School in Webster, Texas and opened at the beginning of the 2002 - 2003 school year.

The School of Education (SoE) 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 (CEP)

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 School of Education's (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 School of Education (SoE) degree requirements, advises all post-degree teacher certification students seeking initial teaching certificates, analyzes transcripts, performs student audits prior to admission to Pre-Service Internship I and the Alternative Certification Program (ACP) and prepares students' degree and certification plans. The office also advises prospective graduate students in the various 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 School of Education (SoE). This office also approves applications for admission to the Teacher

Education Program (TEP); audits for the Master's Comprehensive examination and graduation; recommends students for educator certificates; prepares deficiency plans and tracks data for Title II and the Accountability Standards for Educator Preparation (ASEP-TEA Accreditation).

OFFICE OF STATE ASSESSMENTS

The Office of State Assessments advises and disseminates information to students about the state exams called Texas Examinations of Educator Standards (TExES), on which a passing score is required for graduate certification candidates. This office receives exam scores from the state and records the scores in the 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 Texas Education Agency (TEA) regarding the TExES. The office offers opportunities for University of Houston-Clear Lake (UHCL) students and alumni to take practice tests to help prepare them for their actual exam(s). The School of Education (SoE) State Assessments Coordinator networks with UHCL faculty and staff, as well as Educational Testing Services (ETS) and the TEA, to ensure accurate testing procedures and requirements.

RESEARCH CENTER FOR LANGUAGE AND CULTURE

This center supports initiatives in the research and development of educational programs for students working with second language learners and their families. Funded projects have included teacher training, bilingual counselor training and bilingual administrator training.

LEARNING RESOURCES REVIEW CENTER

This center is jointly sponsored by the Alfred R. Neumann Library and the School of Education (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 (ACP)

The University of Houston-Clear Lake (UHCL) School of Education (SoE) 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 a student's 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 State Board for Educator Certification (SBEC) approved ACP and
- 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 Assessments - Must pass all state assessments.
3. University of Houston-Clear Lake (UHCL) Enrollment - Must be admitted to UHCL by the Office of Admissions before the Alternative Certification Program (ACP) application deadline in order for the School of Education (SoE) Office of Academic Advising to obtain transcripts from the Office of Admissions to calculate the grade point average (GPA). Enroll as either a graduate or post-baccalaureate Teacher Certification student.
4. Teacher Education Program (TEP) Admission - Must be formally admitted by letter to the SoE TEP prior to enrollment in the ACP. Admission requires completion of EDUC 5130; SILC 6030; TCED 6031; Texas Higher Education Assessment (THEA)/Texas Academic Skills Program (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. Admission to TEP is required before accepting a position with a school district.
6. Students must have thirty documented clock hours of K-12 experience or observation to be eligible for ACP.
7. GPA - Must have at least a 2.500 overall GPA. This overall GPA includes all coursework 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 coursework may be accepted (includes all coursework in the semester of the 60th hour).
8. 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 and ACP application. The deadline date is based on the paper-based Texas Examinations of Educator Standards (TExES) administration schedule.

9. Fees - A non-refundable \$60 ACP fee is paid to the CPDT office and is valid for 12 months from the date of application. A \$120 state assessments fee 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.
10. 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 (ACP) Students

Upon acceptance, qualified students will complete the following steps:

1. Probationary Certificate – Students must apply online for a Probationary certificate issued by the Texas Education Agency (TEA) at www.tea.state.tx.us under "Educator Login" and "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 TEA Web site. Students must have a professional fingerprinting service digitally scan their prints and send them to the TEA. The TEA will conduct its criminal background check using these scans by running them through the Federal Bureau of Investigation (FBI) and the Department of Public Safety (DPS) databases. A maximum of three Probationary certificates may be issued by the TEA per student (one per academic year) and students must reapply for them each year. The 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 the TEA if the district has a concern with this issue.
2. Alternative Certification Program (ACP) 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/\$1800 yearly deducted from their salary each semester for the same reasons stated above. *Three years is the maximum allowed time to complete the program.* Students will register for the ACP Internship course every semester once hired in addition to any remaining courses required for completion of their certification. TCED 4768 will be taken during the first UHCL semester of employment. TCED 4769 will be taken during the second UHCL semester of employment. TCED 4709 will be taken each UHCL semester during the second and third year of employment until the student has completed the program requirements and is eligible for recommendation for certification..

3. Certification Plan - Students' transcripts will be analyzed during the first semester at University of Houston-Clear Lake (UHCL). The School of Education's (SoE) Office of Academic Advising will create a Candidate Plan of Study (CPS) 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 the 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 coursework and complete all the requirements listed on the plan. Students must then apply for the Standard Classroom Teaching certificate online and pay the TEA a \$77 fee. UHCL then recommends students for the certificates 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. Professional certificates for Principal, Reading Specialist, School Counselor, School Librarian and Superintendent require a master's degree.

Students seeking a teaching certificate recommendation must have at least a 3.000 overall grade point average (GPA) in Pedagogy coursework and at least a 2.500 overall GPA in the content area for which the recommendation is sought. Grades of "C-" or better are necessary for all University of Houston-Clear Lake (UHCL) teacher education 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 coursework. Graduate courses require a "C" or better. Some courses require a "B-" or better.

A State Board for Educator Certification (SBEC) rule (Title 19, Part 7, Chapter 249) gives the board the authority to suspend or revoke an educator certificate or refuse to issue an educator certificate to a person who has been convicted of a felony or misdemeanor which directly relates to the duties and responsibilities of the educator profession. For additional actions that may be taken by the board, see Rule 249.

STATE ASSESSMENTS INFORMATION

Graduate students seeking Principal, Superintendent, Reading Specialist, School Librarian or School Counselor certifications must pass their respective state exam (Texas Examinations of Educator Standards [TExES]). Graduate certification candidates at University of Houston-Clear Lake (UHCL) may register to take their state assessment once their degree or certification plan is on file in the School of Education (SoE). The degree or certification plan must match the state assessment for which they are registering.

Registration for TExES is to be done online, unless the test taker has no way of paying the test fee electronically, in which case registration may be done by telephone at 1-800-

205-2626. Graduate students may register for their state assessments by logging onto the Educational Testing Service (ETS) Web site at www.texas.ets.org. After setting up a personal account with the ETS, students should follow the directions for registering for an exam.

Graduate certification candidates must pass their respective TExES to be eligible for a practicum/internship.

The ETS provides preparation materials for every certification at <http://www.texas.ets.org/prepMaterials/>. The State Assessments Coordinator administers practice tests, usually once a month, for the following graduate-level certifications: Principal, School Librarian and School Counselor. Please check the SoE Web site www.uhcl.edu/soe or call 281-283-3609 for practice test dates.

TEXAS EDUCATION AGENCY (TEA)

For additional information on State certification, contact the Texas Education Agency (TEA) through their Web site at, www.tea.state.tx.us, or their Information and Support Center number at, 1-512-936-8400. Any changes made by the State and University of Houston-Clear Lake (UHCL) in interpreting the rulings on educator certification plans in Texas may supersede the requirements of existing certification plans, degree plans, alternative certification plans or deficiency plans.

APPLYING FOR CERTIFICATION

All students completing requirements for certificates must apply for certification and pay the required fee through the "Educator Certification Online System" Web site at www.tea.state.tx.us. Verification of certification will automatically be issued electronically by the Texas Education Agency (TEA) as soon as all requirements have been completed by an educator.

POST-DEGREE TEACHER CERTIFICATION PLANS

Students seeking initial teacher certification and 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 University of Houston-Clear Lake (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 University of Houston-Clear Lake (UHCL). Students must meet the gradu-

ate admissions requirements for both the university and the School of Education (SoE). 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. Achieving the following scores on the three sections of the THEA test are considered passing: Reading 260, Mathematics 230 and Writing 230. Any student who has not passed the THEA (see Admission to the Teacher Education Program [TEP]) 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:

1. EC-6 Generalist
2. EC-6 Bilingual Generalist
3. EC-6 ESL Generalist
4. 4-8 English Language Arts and Reading
5. 4-8 English Language Arts and Reading/Social Studies
6. 4-8 Generalist
7. 4-8 Mathematics
8. 4-8 Science
9. 4-8 Social Studies
10. 8-12 English Language Arts and Reading
11. 8-12 History
12. 8-12 Life Sciences
13. 8-12 Social Studies
14. 8-12 Mathematics

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	Teaching Young Children
ECED 5132/ECED 4131	Literacy Development in Early Childhood/Reading Development in Young Children
ECED 5033/TCED 4033	Guidance and Classroom Management for EC-6/Creating Positive Learning Environments in EC-6
ECED 5331/ECED 4134	Evaluation of Development of Young Children
ECED 5131/ECED 4032	Creative Activities for Young Children/Developing Competence in Young Children
ECED 5335/ECED 4335	Children, Family and Society/Children and Families

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 5231/TCED 4231	Teaching Social Studies in the Elementary School/Social Studies Methods for EC-6
TCED 5233/TCED 4233	Teaching Mathematics in the EC-6 Classroom/Mathematics Methods for EC-6
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II

Other required courses:

LLS 5131/LLS 4434	Integrating the Language Arts/Reading & Writing for EC-6
LLS 5533/LLS 4435	Selecting Literature and Materials for Children/Survey of Children's Literature
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar I

Graduate Teacher Certification Plan EC-6 Bilingual Generalist

Check prerequisites before enrolling in any courses.

Required Courses:

SILC 5032/SILC 4133	Applied Linguistics for Bilingual Education/ESL/Language Learning
SILC 5130/SILC 4130	Theory and Research in Bilingual and ESL Education/Foundations of Bilingual and ESL Education
SILC 5031/SILC 4136	Development of Biliteracy/Bilingual Curriculum in the Content Areas
SILC 5531/SILC 4531 SILC 4031	Literacy for Spanish-Speaking Students/Development of Biliteracy Spanish for Bilingual Teachers

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 5231/TCED 4231	Teaching Social Studies in the Elementary School/Social Studies Methods for EC-6
TCED 5232/TCED 4232	Teaching Science in the EC-6 Classroom/Science Methods for EC-6
TCED 5233/TCED 4233	Teaching Mathematics in the EC-6 Classroom/Mathematics Methods for EC-6
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II

Other required courses:

LLS 5131/LLS 4434	Integrating the Language Arts/Reading & Writing for EC-6
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4033/TCED 4010	Creating Positive Learning Environments in EC-6/Senior Seminar I

Graduate Teacher Certification Plan EC-6 ESL Generalist

Check prerequisites before enrolling in any courses.

Required Courses:

SILC 5032/SILC 4133	Applied Linguistics for Bilingual Education/ESL/Language Learning
SILC 5033/SILC 4132	Cross-Curricular Literacy for Second Language Learners/Content-Based ESL
SILC 5130/SILC 4130	Theory and Research in Bilingual and ESL Education/Foundations of Bilingual and ESL Education
SILC 5134/SILC 4131	Second Language Teaching/ESL Methods
SILC 6032/SILC 4032	Models of Language/Introduction to the Study of Languages

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 5231/TCED 4231	Teaching Social Studies in the Elementary School/Social Studies Methods for EC-6
TCED 5232/TCED 4232	Teaching Science in the EC-6 Classroom/Science Methods for EC-6
TCED 5233/TCED 4233	Teaching Mathematics in the EC-6 Classroom/Mathematics Methods for EC-6
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II

Other required courses:

LLS 5131/LLS 4434	Integrating the Language Arts/Reading & Writing for EC-6
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4033/TCED 4010	Creating Positive Learning Environments in EC-6/Senior Seminar I

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 a School of Education (SoE) adviser for details.

Required Courses:

LITR 3631	Shakespeare
LITR 4031	Principles of Composition
LLS 4436	Teaching Language Arts in the 4-8 Classroom
LLS 5135/LLS 4131	Developmental Reading Programs for Secondary Schools/Survey of Reading

LLLS 5531/LLLS 4531
LLLS 5533/LLLS 4435

Critical Reading and Thinking/Reading in Content Subjects
Selecting Literature and Materials for Children/Survey of Children's Literature

Choose two courses from:

LITR 3334	Mythology
LITR 3731	Creative Writing
LITR 4034	Workshop in Poetics
LITR 4035	Film as Literature
LITR 4131	Literary Theory
LITR 4132	Modern American and English Poetry
LITR 4133	Modern and Contemporary Drama
LITR 4134	The Modern Novel
LITR 4238	Rise and Development of the English Novel
LITR 4331	Contemporary Poetry
LITR 4533	Tragedy
LITR 4534	Comedy
LITR 4535	The Literature of Adolescence
LITR 4537	Women in Literature
LITR 4632	Literature of the Future

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II
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Other required courses:

SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar I
TCED 5431	Nature of the Middle Level Learner

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

To be "Highly Qualified" to teach at the elementary level (Grades EC-6), teacher candidates must pass an EC-6 Generalist or 4-8 Generalist Texas Examinations of Educator Standards (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 Educational Testing Service (ETS) test registration Web site. Then they may apply at the State Board for Educator Certification (SBECE)/Texas Education Agency (TEA) Web site as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 1-512-463-9374 or <http://www.tea.state.tx.us/nclb>. See the section called "NCLB Quick Links" and "Highly Qualified Teacher Requirements".

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 a School of Education (SoE) adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

HIST 3230	Ancient World
HIST 4035 ¹	Texas and the Borderlands
LITR 3631	Shakespeare
LITR 4031	Principles of Composition
LLS 5131/LLS 4434	Integrating the Language Arts/Reading & Writing for EC-6
LLS 5135/LLS 4131	Developmental Reading Programs for Secondary Schools/Survey of Reading
LLS 5531/LLS 4531	Critical Reading and Thinking/Reading in Content Subjects

Choose two courses from:

LITR 3334	Mythology
LITR 3731	Creative Writing
LITR 4034	Workshop in Poetics
LITR 4035	Film as Literature
LITR 4131	Literary Theory
LITR 4132	Modern American and English Poetry
LITR 4133	Modern and Contemporary Drama
LITR 4134	The Modern Novel
LITR 4238	Rise and Development of the English Novel
LITR 4331	Contemporary Poetry
LITR 4533	Tragedy
LITR 4534	Comedy
LITR 4535	The Literature of Adolescence
LITR 4537	Women in Literature
LITR 4632	Literature of the Future

Choose two courses from:

GEOG 3137 ²	Global Geography
GEOG 4030	Geography of the United States and Canada
GEOG 4136	Economic Geography

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4331	Social Studies Methods for Grades 4-8
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II

Other required courses:

SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4013	Senior Seminar for Secondary Social Studies Programs
TCED 5431	Nature of the Middle Level Learner

¹Course has lower-level equivalent.

²Students entering University of Houston-Clear Lake (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" to teach at the elementary level (Grades EC-6), teacher candidates must pass an EC-6 Generalist or 4-8 Generalist Texas Examinations of Educator Standards (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 Educational Testing Service (ETS) test registration Web site. Then they may apply at the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA) Web site as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 1-512-463-9374 or <http://www.tea.state.tx.us/nclb>. See the section called "NCLB Quick Links" and "Highly Qualified Teacher Requirements".

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 a School of Education (SoE) adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

LITR 3631	Shakespeare
LLS 5531/LLS 4531	Critical Reading and Thinking/Reading in Content Subjects
LLS 5533/LLS 4435	Selecting Literature and Materials for Children/Survey of Children's Literature
MATH 3037	Fundamentals of Informal Geometry and Statistical Analysis

Choose one course from:

LITR 4031	Principles of Composition
WRIT 3037	Advanced Writing

Choose one course from:

GEOG 3137 ¹	Global Geography
GEOG 4030	Geography of the United States and Canada
GEOG 4032	Geography of Latin America
GEOG 4033	Geography of Texas

Choose one course from:

HIST 3230	Ancient World
HIST 3331	Medieval Europe
HIST 3332	Renaissance and Reformation
HIST 4034	The New South
HIST 4035 ²	Texas and the Borderlands
HIST 4036	Colonial America
HIST 4037	The New American Nation
HIST 4038	Antebellum America

HIST 4133	Civil War and Reconstruction
HIST 4137	Studies in Latin American History
HIST 4138	Indigenous and Colonial Latin America
HIST 4139	Modern Latin America
HIST 4230	History of Mexico
HIST 4333	Studies in Non-Western History

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 (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4331	Social Studies Methods for Grades 4-8
TCED 5332/TCED 4332	Teaching Science in the 4-8 Classroom/Science Methods for Grades 4-8
TCED 5333/TCED 4333	Teaching Mathematics in the 4-8 Classroom/Mathematics Methods for Grades 4-8
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II

Other required courses:

SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar I
TCED 5431	Nature of the Middle Level Learner

¹Students entering University of Houston-Clear Lake (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 a School of Education (SoE) adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

CALCULUS I (4 hours)	
CALCULUS II (4 hours)	
MATH 3034	Algebra Through Technology
MATH 3131	Introduction to Linear Algebra
MATH 4030	Introduction to Modern Algebra and Number Theory
MATH 4434	Introduction to Probability

Choose four courses from:

MATH 3231	Calculus III
MATH 4031	History of the Mathematical Sciences
MATH 4132	Number Theory
MATH 4135	Numerical Analysis and its Applications
MATH 4136	Mathematic Software Applications

MATH 4231	Predicate Logic
MATH 4232	Introduction to Abstract Algebra
MATH 4235	Theory of Models and Applications
MATH 4435	Introduction to Statistics

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II
TCED 5333/TCED 4333	Teaching Mathematics in the 4-8 Classroom/Mathematics Methods for Grades 4-8

Other required courses:

LLS 5531/LLLS 4531	Critical Reading and Thinking/Reading in Content Subjects
LLS 5533/LLLS 4435	Selecting Literature and Materials for Children/Survey of Children's Literature
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar I
TCED 5431	Nature of the Middle Level Learner

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

To be "Highly Qualified" to teach at the elementary level (Grades EC-6), teacher candidates must pass an EC-6 Generalist or 4-8 Generalist Texas Examinations of Educator Standards (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 Educational Testing Service (ETS) test registration Web site. Then they may apply at the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA) Web site as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 1-512-463-9374 or <http://www.tea.state.tx.us/nclb>. See the section called "NCLB Quick Links" and "Highly Qualified Teacher Requirements".

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 a School of Education (SoE) adviser for details.

Required Courses:

Botany and lab (4 hours)	
Zoology and lab (4 hours)	
Physics (4 hours)	
BIOL 3037	Cell Biology
BIOL 3333	Environmental Biology
BIOL 3431	Genetics

Choose one course from:

GEOL 3034	Fundamentals of Planetary Geology
GEOL 3035	Fundamentals of Earth Science

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II
TCED 5332/TCED 4332	Teaching Science in the 4-8 Classroom/Science Methods for Grades 4-8

Other required courses:

LLS 5531/LLS 4531	Critical Reading and Thinking/Reading in Content Subjects
LLS 5533/LLS 4435	Selecting Literature and Materials for Children/Survey of Children's Literature
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar I
TCED 5431	Nature of the Middle Level Learner

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

To be "Highly Qualified" to teach at the elementary level (Grades EC-6), teacher candidates must pass an EC-6 Generalist or 4-8 Generalist Texas Examinations of Educator Standards (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 Educational Testing Service (ETS) test registration Web site. Then they may apply at the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA) Web site as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 1-512-463-9374 or <http://www.tea.state.tx.us/nclb>. See the section called "NCLB Quick Links" and "Highly Qualified Teacher Requirements"..

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 a School of Education (SoE) adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

GEOG 3137 ¹	Global Geography
GEOG 4030	Geography of the United States and Canada
GEOG 4137	International Political Economy
HIST 3230	Ancient World
HIST 4035 ²	Texas and the Borderlands

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4331	Social Studies Methods for Grades 4-8
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II

Other required courses:

LLS 5531/LLS 4531	Critical Reading and Thinking/Reading in Content Subjects
LLS 5533/LLS 4435	Selecting Literature and Materials for Children/Survey of Children's Literature
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4013	Senior Seminar for Secondary Social Studies Programs
TCED 5431	Nature of the Middle Level Learner

¹Students entering University of Houston-Clear Lake (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" to teach at the elementary level (Grades EC-6), teacher candidates must pass an EC-6 Generalist or 4-8 Generalist Texas Examinations of Educator Standards (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 Educational Testing Service (ETS) test registration Web site. Then they may apply at the State Board for Educator Certification (SBEC)/Texas Education Agency (TEA) Web site as "Certification by Examination" to add the Generalist certificate. Contact TEA's NCLB office for further information at 1-512-463-9374 or <http://www.tea.state.tx.us/nclb>. See the section called "NCLB Quick Links" and "Highly Qualified Teacher Requirements". .

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 a School of Education (SoE) adviser for details.

Required Courses:

LITR 3631	Shakespeare
LITR 4031	Principles of Composition
LLS 5135/LLS 4132	Developmental Reading Programs for Secondary Schools/Literacy Issues of Secondary Students
LLS 5531/LLS 4531	Critical Reading and Thinking/Reading in Content Subjects
LLS 5532/LLS 4532	Selecting Literature and Materials for Young Adults/Young Adult Literature and Reading

Choose two courses from:

LITR 3334	Mythology
LITR 3731	Creative Writing
LITR 4034	Workshop in Poetics
LITR 4035	Film as Literature
LITR 4131	Literary Theory
LITR 4132	Modern American and English Poetry
LITR 4133	Modern and Contemporary Drama
LITR 4134	The Modern Novel
LITR 4238	Rise and Development of the English Novel
LITR 4331	Contemporary Poetry
LITR 4533	Tragedy
LITR 4534	Comedy
LITR 4535	The Literature of Adolescence
LITR 4537	Women in Literature
LITR 4632	Literature of the Future

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II
LLLS 5634/LLLS 4634	Teaching Methods for English/Reading Language Arts Grades 8-12/Methods in Secondary English/Language Arts

Other required courses:

SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar I
TCED 5530	Adolescent Development and Curriculum

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 a School of Education (SoE) adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

GEOG 3137 ¹	Global Geography
HIST 4036	Colonial America
HIST 4133	Civil War and Reconstruction
HIST 4333	Studies in Non-Western History

Choose two courses from History electives: Please see SoE academic adviser.

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769 TCED 5234/TCED 4631	Pre-Service Internship I & II or Post-Degree Internship I & II Social Studies Methods for the Secondary Grades/Methods in Secondary Social Studies
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Other required courses:

LLS 5135/LLS 4132	Developmental Reading Programs for Secondary Schools/Literacy Issues of Secondary Students
LLS 5531/LLS 4531	Critical Reading and Thinking/Reading in Content Subjects
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4013	Senior Seminar for Secondary Social Studies Programs
TCED 5530	Adolescent Development and Curriculum

*Students entering University of Houston-Clear Lake (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 a School of Education (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	Genetics
BIOL 4011	Laboratory Methods in Life Sciences
BIOL 4031	Methods in Life Science

Choose one course from:

BIOL 3036	Development of the Sciences
BIOL 4728	Seminar in Biology

Choose one course from:

BIOL 3333	Environmental Biology
BIOL 4131	Ecology

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4738 and	Pre-Service Internship I & II or Post-Degree Internship I & II
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TCED 4798 or
TCED 4768 and
TCED 4769
TCED 5235/TCED 4632

Science Methods for the Secondary Grades/Methods in Secondary Science

Other required courses:

LLS 5135/LLS 4132

Developmental Reading Programs for Secondary Schools/Literacy Issues of Secondary Students

LLS 5531/LLS 4531

Critical Reading and Thinking/Reading in Content Subjects

SPED 5030/SPED 4030

Survey of Individual Differences/Survey of Exceptionalities

TCED 4010

Senior Seminar I

TCED 5530

Adolescent Development and Curriculum

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 a School of Education (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

Algebra Through Technology

Euclidian and Non-Euclidian Geometry

Introduction to Linear Algebra

Introduction to Probability

Choose five courses from:

MATH 3231

MATH 4031

MATH 4131

MATH 4132

MATH 4135

MATH 4136

MATH 4231

MATH 4232

MATH 4235

MATH 4435

Calculus III

History of the Mathematical Sciences

Ordinary Differential Equations and Applications

Number Theory

Numerical Analysis and its Applications

Mathematic Software Applications

Predicate Logic

Introduction to Abstract Algebra

Theory of Models and Applications

Introduction to Statistics

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130

SILC 6030/SILC 4135

TCED 6031/INST 3133

Theories of Educational Psychology

Foundations of Multicultural Education/Theories of American Pluralism

Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4738 and

TCED 4798 or

TCED 4768 and

TCED 4769

TCED 5236/TCED 4633

Pre-Service Internship I & II or Post-Degree Internship I & II

Mathematics Methods for the Secondary Grades/Methods in Secondary Mathematics

Other required courses:

LLLS 5135/LLLS 4132	Developmental Reading Programs for Secondary Schools/Literacy Issues of Secondary Students
LLLS 5531/LLLS 4531	Critical Reading and Thinking/Reading in Content Subjects
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar I
TCED 5530	Adolescent Development and Curriculum

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 a School of Education (SoE) adviser for details.

Check prerequisites before enrolling in any courses.

Required Courses:

GEOG 3137 ¹	Global Geography
GEOG 4132	Human Geography
GEOG 4137	International Political Economy
HIST 4036	Colonial America
HIST 4133	Civil War and Reconstruction
HIST 4333	Studies in Non-Western History

Prerequisite Courses for Admission to Teacher Education Program (TEP):

EDUC 4130	Theories of Educational Psychology
SILC 6030/SILC 4135	Foundations of Multicultural Education/Theories of American Pluralism
TCED 6031/INST 3133	Application of Technology in the Classroom/Survey of Instructional Technologies

Pedagogy Courses:

TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II
TCED 5234/TCED 4631	Social Studies Methods for the Secondary Grades/Methods in Secondary Social Studies

Other required courses:

LLLS 5135/LLLS 4132	Developmental Reading Programs for Secondary Schools/Literacy Issues of Secondary Students
LLLS 5531/LLLS 4531	Critical Reading and Thinking/Reading in Content Subjects
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar I
TCED 5530	Adolescent Development and Curriculum

¹Students entering University of Houston-Clear Lake (UHCL) with GEOG 1303 have met the GEOG 3137 requirement.

No Child Left Behind (NCLB) Highly Qualified Teacher Requirements

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 University of Houston-Clear Lake (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 Texas Examinations of Educator Standards (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."

Through Fall 2008, the federal government allowed 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 coursework to be considered "Highly Qualified." For information pertinent to a Special Education job within a specific school district, contact the Texas Education Agency's (TEA's) NCLB representative at 1-512-463-9374 or view their Web site <http://www.tea.state.tx.us/nclb>. See the section called "NCLB Quick Links" and "Highly Qualified Teacher Requirements."

ADMISSION TO PRE-SERVICE INTERNSHIPS I AND II FOR GRADUATE STUDENTS

TCED 4736, Integrated Methods Application eXperience (IMA^eX); TCED 4738, Pre-Service Internship I; and TCED 4798, Pre-Service Internship II (or TCED 4668, Pre-Service Internship II- Generalist) are the capstone experiences for the University of Houston-Clear Lake (UHCL)-approved Teacher Education Program (TEP) and students must enroll in consecutive long semesters (fall/spring or spring/fall) to complete these two experiences. The rules governing TCED 4736, TCED 4738, 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 Internship I through the Center for Professional Development of Teachers (CPDT). Applications for Pre-Service Internship I must be received in the CPDT by March 1 for fall internship and by October 1 for spring internship. Pre-Service Internships I and II are not offered during the summer.

Current Internship I candidates do not need to apply for Internship II. The SoE advising staff will automatically conduct an audit of all Internship I candidates' academic

records at the end of each semester to determine candidates' eligibility for Internship II. Informational meetings are held in early September and February each year. Dates and times are posted on the bulletin board outside Suite B1231 as well as the television monitors throughout the university. SoE advisors also send students notification of the informational meetings via UHCL e-mail. Pre-Service Internship I applications are available at the informational meeting.

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 (TCED 4738)

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

1. Formal admission to Teacher Education Program (TEP) (see above).
2. 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.
3. Pedagogy courses and LLS 5131/LLS 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 p.m. on Wednesdays may not be taken during Internship I, as they may interfere with Internship I course requirements.
4. 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.
5. Applications for Pre-Service Internship I must be received in the Center for Professional Development of Teachers (CPDT) (B1231-4) before the close of business on March 1 for fall internship and by October 1 for spring internship. If the application deadline falls on a weekend or a university holiday, applications will be accepted before the close of business on the following working day.
6. 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. In the event that the student has not passed the required state certification exams prior to the following consecutive long semester, the student will enter Internship II the following semester after the

required state certification exams have been passed. Students will be informed of their public school internship assignment before Pre-Service Internship I begins.

Intern I participants must pass all Texas Examinations of Educator Standards (TExES) to be eligible for Internship II. Scores must be submitted by July 15 for fall intern II participants and December 15 for spring intern II participants.

Pre-Service Internship II (TCED 4798 or TCED 4668)

Students must meet the following requirements for admission to Pre-Service Internship II:

1. All Texas Examinations of Educator Standards (TExES) exams must be passed to be eligible for Internship II. Scores must be submitted by July 15 for fall intern II participants and by December 15 for spring intern II participants.
2. Successful completion of Pre-Service Internship I with a grade of "B-" or better.
3. Successful completion of all field experiences courses.
4. A grade point average (GPA) of 3.000 or better in pedagogy courses, with a grade of "B"- or better in Pre-Service Internship I.
5. A GPA of 2.500 or better in specialization courses, with grades of "C-" or better in each.
6. Grades of "C-" or better are required for all other coursework at University of Houston-Clear Lake (UHCL).
7. Successful completion of TCED 4010, TCED 4012 or TCED 4013.
8. 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 coursework.

If students denied admission to Pre-Service Internships I or II want to reapply, but they must do so by stated deadlines for subsequent semesters.

ADMISSION TO THE TEACHER EDUCATION PROGRAM (TEP) FOR POST-DEGREE TEACHER CERTIFICATION STUDENTS

In order to enroll in pedagogy coursework, students must be formally admitted to the Teacher Education Program (TEP). Enrollment in the School of Education (SoE) TEP is contingent on the following:

1. Achieving the following passing scores on the three sections of the basic skills test, Texas Higher Education Assessment (THEA)/Texas Academic Skills Program (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 TEP 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 University of Houston-Clear Lake (UHCL) instructor who has observed the public speaking skills of the student.
5. Achieving a grade point average (GPA) of > 2.500 overall or in the last 60 semester credit hours. The GPA will be calculated by the SoE after the 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 Texas Education Agency (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 TEP.

Upon acceptance to the TEP, the SoE will establish an initial profile for each student with the TEA. All educator candidates in Texas are required to open an account upon entering a program. Students will receive an e-mail message from the TEA prompting them to activate their accounts and complete their profiles.

The final authority for admission and retention in the TEP 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 University of Houston-Clear Lake (UHCL) may have all of their respective academic specialization coursework waived by UHCL, if they are pursuing one of the following certificates:

1. 4-8 English Language Arts and Reading
2. 4-8 English Language Arts and Reading/Social Studies
3. 4-8 Mathematics
4. 4-8 Science
5. 4-8 Social Studies
6. 8-12 English Language Arts and Reading
7. 8-12 History
8. 8-12 Life Sciences
9. 8-12 Mathematics
10. 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, and 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 of 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. University of Houston-Clear Lake (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	Curriculum Issues in Educating the Bilingual Student/Bilingual Curriculum in the Content Areas
SILC 5032/SILC 4133	Applied Linguistics for Bilingual Education/ESL/Language Learning
SILC 5130/SILC 4130	Theory and Research in Bilingual and ESL Education/Foundations of Bilingual and ESL Education
SILC 5134/SILC 4131	Second Language Teaching/ESL Methods
SILC 5531/SILC 4531	Literacy for Spanish-Speaking Students/Development of Biliteracy
TCED 5010 ¹	Professional Preparation Seminar

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 Texas Examinations of Educator Standards (TExES) and the Texas Oral Proficiency Test (TOPT) – Spanish or Bilingual Target Language Proficiency Test (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 English as a Second Language (ESL) Supplemental certificate

must hold a valid Texas teaching certificate and must complete the following required courses:

SILC 5032/SILC 4133	Applied Linguistics for Bilingual Education/ESL/Language Learning
SILC 5033/SILC 4137	Cross-Curricular Literacy for Second Language Learners/Developing Content Literacy in the Bilingual Classroom
SILC 5130/SILC 4130	Theory and Research in Bilingual and ESL Education/Foundations of Bilingual and ESL Education
SILC 5134/SILC 4131	Second Language Teaching/ESL Methods
SILC 6032/SILC 4032	Models of Language/Introduction to the Study of Languages
TCED 5010 ¹	Professional Preparation Seminar

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 ESL Supplemental Texas Examinations of Educator Standards (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 5010 ¹	Professional Preparation Seminar
TCED 5630	Educating the Gifted and Talented Learner
TCED 5632	Growth and Development of the Gifted Learner
TCED 5634	Curriculum Development for Gifted and Talented Learners
TCED 5637 ²	Practicum in Gifted and Talented Education

¹Students not passing the Gifted and Talented state assessment by the final semester of this plan must also enroll in and successfully complete this course.

²This 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 Texas Examinations of Educator Standards (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	Survey of Individual Differences
SPED 5131	Educational Assessment of Exceptionalities
SPED 5132 ¹	Curricular Approaches to Learning Difficulties
SPED 5133	Practicum in Inclusive Education
SPED 5233	Providing Positive Behavioral Support
SPED 5332	Exceptionalities in Infants and Young Children
SPED 5010 ¹	Professional Preparation Seminar

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 Texas Examinations of Educator Standards (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. University of Houston-Clear Lake (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 coursework 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	Mathematics for EC- 6 I
MATH 3032	Mathematics for EC- 6 II
MATH 3034	Algebra Through Technology
MATH 3038	Computational Statistics
MATH 5031 or	Problem-Solving Strategies or Problem Solving
MATH 3036	
TCED 5010 ¹	Professional Preparation Seminar
TCED 5014	Mentoring and Cognitive Coaching
TCED 5233	Teaching Mathematics in the EC-6 Classroom

4-8 Level

MATH 3033	Structure of Number Systems
MATH 3034	Algebra Through Technology
MATH 3035	Euclidian and Non-Euclidian Geometry
MATH 3038	Computational Statistics
MATH 5031 or	Problem-Solving Strategies or Problem Solving
MATH 3036	
TCED 5010 ¹	Professional Preparation Seminar
TCED 5014	Mentoring and Cognitive Coaching
TCED 5333	Teaching Mathematics in the 4-8 Classroom

8-12 Level

MATH 4132	Number Theory
MATH 4434	Introduction to Probability
MATH 5031	Problem-Solving Strategies

MATH 5033	Instructional Applications of Algebra
MATH 5034	Geometry Seminar
TCED 5010 ¹	Professional Preparation Seminar
TCED 5014	Mentoring and Cognitive Coaching
TCED 5236	Mathematics Methods for the Secondary Grades

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 Texas Education Agency (TEA) approved or out-of-state approved school.

MASTER READING TEACHER CERTIFICATE FOR TEACHERS (13 HOURS)

The Master Reading Teacher Certificate for Teachers program provides 13 credit hours of graduate courses, which is equivalent to 195 hours of continuing education units. Courses include:

LLS 5534	Foundations in Secondary Literacy
LLS 5738	Foundations of Early Literacy
LLS 6331	Sociolinguistic Applications to Reading
LLS 6732	Assessment and Remediation of Reading and Language Arts Literacy
TCED 5010 ¹	Professional Preparation Seminar
TCED 5014	Mentoring and Cognitive Coaching

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 Texas Education Agency (TEA) approved or out-of-state approved school.

MASTER READING TEACHER CERTIFICATE FOR READING SPECIALISTS (1 HOUR)

The Master Reading Teacher Certificate for Reading Specialists program provides a one 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, Mentoring and Cognitive Coaching.

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 program provides 2-17 credit hours of graduate courses that are equivalent to 30-255 hours of continuing education credits.

Successful completion of coursework 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	Assistive-Adaptive Computer Applications
INST 5035 ¹	Creating Digital Resources
INST 5130 ¹	Learning Theory and Instruction
INST 5333 ¹	Systematic Design of Technology-Based Instruction
INST 6031 ¹	Applications of Technology
INST 6037 ¹	Advanced Technology Applications
TCED 5010 ²	Professional Preparation Seminar
TCED 5014 ²	Mentoring and Cognitive Coaching

¹Course will be waived for students who already hold the 8-12 Technology Applications certificate, EC-12 Technology Applications certificate or a Master of Science (M.S.) in Instructional Technology from University of Houston-Clear Lake (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 Texas Education Agency (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 the State Board for Educator Certification (SBEC) and receive a University of Houston-Clear Lake (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 Courses:

COUN 5034	Community Collaboration in Counseling
COUN 5035	Advanced Interpersonal Skills in Diverse Settings

UHCL Distance Education 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 University of Houston-Clear Lake (UHCL). It is not a state certificate.

Check prerequisites before enrolling in any courses.

Required Courses (3 hours):

INST 6437 Interactive Distance Learning

Choose 6 hours from the following:

INST 5135 Multimedia Design Applications

INST 5835 Digital Video Production for Educators and Trainers

INST 6137 Technology and e-Learning

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 Texas Examinations of Educator Standards (TExES) state assessment which is required of all teachers. This certificate is offered through University of Houston-Clear Lake (UHCL). It is not a state certificate.

Check prerequisites before enrolling in any courses.

Required Courses (3 hours):

TCED 6031/INST 6031 Application of Technology in the Classroom/Applications of Technology

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 University of Houston-Clear Lake (UHCL). It is not a state certificate.

Check prerequisites before enrolling in any courses.

Required Courses (12 hours):

INST 5130 Learning Theory and Instruction

INST 5233 Performance Technology

INST 5333 Systematic Design of Technology-Based Instruction

INST 5433 or INST 5131 Instructional Design, Project Management and Grant Writing or Trends & Issues

"Add-On" Certificates

The State Technology certificates have been approved by the Texas Higher Education Coordinating Board (THECB) 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 Texas Examinations of Educator Standards (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	Creating Digital Resources
INST 5130	Learning Theory and Instruction
INST 6031	Applications of Technology
INST 6037	Applications of Technology
TCED 5010 ¹	Professional Preparation Seminar

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	Creating Digital Resources
INST 6031	Applications of Technology
INST 6037	Applications of Technology
TCED 5010 ¹	Professional Preparation Seminar

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 (M.S.):

1. Counseling
2. Curriculum and Instruction
3. Early Childhood Education
4. Educational Management
5. Instructional Design and Technology
6. Multicultural Studies in Education
7. Reading
8. School Library and 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 grade point average (GPA) of 3.000 or greater or a GPA of

3.000 or greater in their last 60 hours. The last 60 hours, listed chronologically, including the full semester in which the 60th hour appears, will be used to calculate the GPA for 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 Curriculum and Instruction program must meet additional requirements described under the heading "Master of Science in Curriculum and Instruction" 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 294 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 (If the GRE was taken prior to August 2011, a combined score of 900 or greater on the quantitative and verbal portions of the GRE is required.)
- 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 a 2.500 to 3.000 GPA 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 School of Education (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 University of Houston-Clear Lake (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 to enhance the likelihood of success in the students' academic plans. All requests for sponsored admission must be approved by the associate dean.

In addition to the other admission criteria listed above, international graduate students whose primary language is one 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 (CPS).

Graduate 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 coursework. The CPS will be developed jointly by the students and their advisers and approved by the associate dean. These documents specify the coursework 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 Coursework for Graduate Degrees

Coursework, 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 coursework 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 coursework 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 coursework 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 is available on the SoE Web site.

Age of Standard Certification Coursework for Students Who Hold a Master's Degree

All coursework, 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 coursework 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 coursework 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 (M.S.) 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 counseling courses, plus some electives.

Students who wish to pursue LPC certification must complete the master's degree plan with a minimum of 51 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 School of Education (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>. Each application for candidacy must include the following:

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 grade point average (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 containing the 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: November 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 program, unless otherwise approved.

LICENSED PROFESSIONAL COUNSELOR PREPARATION (FOR CANDIDATES ALREADY HOLDING A MASTER'S DEGREE IN A COUNSELING RELATED FIELD)

To receive Licensed Professional Counselor (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 Courses (30 hours):

COUN 5131	Counseling for Lifespan Development
COUN 5231	Principles of Counseling
COUN 5432	Theories of Counseling
COUN 6232	Assessment Issues for Counselors
COUN 6334	Career Development and Counseling
COUN 6435 ¹	Pre-Practicum in Counseling
COUN 6531 ¹	Counseling Special Populations
COUN 6532	Group Counseling
COUN 6533	Crisis Intervention
COUN 6731	Professional Seminar in Counseling

Capstone experience (6 hours):

COUN 5739¹
COUN 6739¹

Counseling Practicum I
Counseling Practicum II

¹Grades must be "B-" or better.

MASTER OF SCIENCE IN COUNSELING WITH LICENSED PROFESSIONAL COUNSELOR PREPARATION

To receive Licensed Professional Counselor (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	Multicultural Foundations for Counselors
COUN 6031	Technology Applications for Counselors
COUN 6032	Statistics and Measurement for Counselors
COUN 6033	Research Design and Analysis for Counselors

Counseling Core (30 hours):

COUN 5131	Counseling for Lifespan Development
COUN 5231	Principles of Counseling
COUN 5432	Theories of Counseling
COUN 6232	Assessment Issues for Counselors
COUN 6334	Career Development and Counseling
COUN 6435 ¹	Pre-Practicum in Counseling
COUN 6531	Counseling Special Populations
COUN 6532 ¹	Group Counseling
COUN 6533	Crisis Intervention
COUN 6731	Professional Seminar in Counseling

Advised electives (3 hours):

COUN 5034	Community Collaboration in Counseling
COUN 5035	Advanced Interpersonal Skills in Diverse Settings
COUN 5931	Topics in Counseling
COUN 5939	Independent Study in Counseling
COUN 6534	Developmental School Counseling Programs

Capstone experience (6 hours):

COUN 5739 ¹	Counseling Practicum I
COUN 6739 ¹	Counseling Practicum II

¹Grades 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 5010 ¹	Professional Preparation Seminar
COUN 5131	Counseling for Lifespan Development
COUN 5231	Principles of Counseling
COUN 5432	Theories of Counseling

COUN 6232	Assessment Issues for Counselors
COUN 6334	Career Development and Counseling
COUN 6435 ²	Pre-Practicum in Counseling
COUN 6531	Counseling Special Populations
COUN 6532 ²	Group Counseling
COUN 6533	Crisis Intervention
COUN 6534	Developmental School Counseling Programs
COUN 6731	Professional Seminar in Counseling

Advised elective (3 hours):

COUN 5034	Community Collaboration in Counseling
COUN 5035	Advanced Interpersonal Skills in Diverse Settings
COUN 5931	Topics in Counseling
COUN 5939	Independent Study in Counseling
COUN 6033	Research Design and Analysis for Counselors

Capstone experience (6 hours):

COUN 5739 ²	Counseling Practicum I
COUN 6739 ²	Counseling Practicum II

¹Students not passing the state assessments by the final semester of this plan must also enroll in and successfully complete this course.

²Grades 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	Multicultural Foundations for Counselors
COUN 6031	Technology Applications for Counselors
COUN 6032	Statistics and Measurement for Counselors
COUN 6033	Research Design and Analysis for Counselors

Counseling Core (33-34 hours):

COUN 5010 ²	Professional Preparation Seminar
COUN 5131	Counseling for Lifespan Development
COUN 5231	Principles of Counseling
COUN 5432	Theories of Counseling
COUN 6232	Assessment Issues for Counselors
COUN 6334	Career Development and Counseling
COUN 6435 ¹	Pre-Practicum in Counseling
COUN 6531	Counseling Special Populations
COUN 6532 ¹	Group Counseling
COUN 6533	Crisis Intervention
COUN 6534	Developmental School Counseling Programs
COUN 6731	Professional Seminar in Counseling

Capstone experience (6 hours):

COUN 5739 ¹	Counseling Practicum I
COUN 6739 ¹	Counseling Practicum II

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 the State Board for Educator Certification (SBEC) does not have a separate specialized certification to train bilingual students to work with English Language Learners (ELLs), University of Houston–Clear Lake (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 (M.S.) 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.

Potential candidates who meet the graduate admissions requirements to the School of Education (SoE) (see "Graduate Admissions Requirements") must meet additional requirements prior to being admitted to the curriculum and instruction program. Each applicant must provide:

- Proof of a valid Texas teaching certificate
- Proof of a minimum of one year of successful full-time classroom teaching experience in an accredited school

Potential candidates with teaching certificates from other states or with non-public school teaching experiences may apply for conditional acceptance to the program by submitting:

- Proof of a valid teaching certificate from another state (if applicable)
- A letter requesting conditional acceptance, providing a thorough explanation of any related teaching experience, including the scope of experience and/or how a Master of Science in Curriculum and Instruction degree supports career goals

Upon review of these documents, faculty may request an interview with the potential candidate to further explore his/her eligibility for conditional acceptance into the program.

University of Houston–Clear Lake (UHCL) students who seek teaching certification dually with a graduate degree may be considered for conditional acceptance to the program through the following:

- 3.200 grade point average (GPA) of UHCL certification coursework
- Completion of methods courses
- Recommendation from two UHCL faculty
- Interview with program faculty

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032	Applied Statistics
EDUC 6033	Research Design and Analysis
SILC 6030	Foundations of Multicultural Education
TCED 6031/INST 6031	Application of Technology in the Classroom/Applications of Technology

Curriculum and Instruction Core (9 hours):

TCED 5030	Models of Teaching
TCED 5031	Curriculum Planning
TCED 5036	Issues of Pedagogy
TCED 5037	Assessment in Student Learning

Six hours from an area of specialization chosen in consultation with your assigned faculty adviser.

Master's Degree Options (6 hours):

Option 1: EDUC 6939,	Master's Thesis Research
or Option 2: EDUC 6839,	Master's Project
or Option 3:	Internship in Curriculum and Instruction/Professional Development for Enhancing Teacher Leadership
TCED 6739/TCED 5038	

MASTER OF SCIENCE IN EARLY CHILDHOOD EDUCATION

The graduate plan in Early Childhood Education leads to the Master of Science (M.S.) 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 four tracks of Early Childhood Education: the master's degree, the master's degree focusing on young children with disabilities and the master's degree with focus on individuals with disabilities (EC-6) and master's degree with EC-6 certification.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032	Applied Statistics
EDUC 6033	Research Design and Analysis
INST 6031 ¹	Applications of Technology
SILC 6030	Foundations of Multicultural Education

¹Students in Track C must take TCED 6031 instead of INST 6031.

Early Childhood Core (9 hours):

ECED 5031	Teaching Young Children
ECED 5032 ²	Community Programs for Young Children
ECED 5131	Creative Activities for the Young Child

²Students in Track D must take ECED 5132 instead of ECED 5032.

Track A - Master's Degree Only**Advised Electives (9 hours):**

ECED 5033	Guidance and Classroom Management for EC-6
ECED 5132	Literacy Development in Early Childhood
ECED 5133	Mathematics and Problem Solving for Young Children
ECED 5331	Evaluation of Development of Young Children
ECED 5332 ¹	Infants and Young Children With Exceptionalities

ECED 5333	Advanced Studies of Infants and Young Children With Special Needs
ECED 5231	Play and the Developing Child
ECED 5335	Children, Family and Society
ECED 5336	Administration and Management of Programs for Young Children
ECED 5737	Practicum: Infants and Young Children With Disabilities

Master's Degree Options (6 hours):

Option 1: EDUC 6939 or	Master's Thesis Research
Option 2: EDUC 6839 or	Master's Project
Option 3: ECED 6739	Internship in Early Childhood Education

Option 3 requires 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	Infants and Young Children With Exceptionalities
ECED 5333	Advanced Studies of Infants and Young Children With: Special Needs
ECED 5737	Practicum: Infants and Young Children With Disabilities
SPED 5131	Educational Assessment of Exceptionalities

Master's Degree Options (6 hours):

ECED 6739	Practicum in Early Childhood Education
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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	Guidance and Classroom Management for EC-6
ECED 5132	Literacy Development in Early Childhood
ECED 5331	Evaluation of Development of Young Children
ECED 5335	Children, Family and Society

Master's Degree Options (6 hours):

ECED 6739	Internship in Early Childhood Education
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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 (34 hours):

EDUC 4130	Theories of Educational Psychology
LLLS 5131/LLLS 4434	Integrating the Language Arts/Reading & Writing for EC-6
LLLS 5533/LLLS 4435	Selecting Literature and Materials for Children/Survey of Children's Literature
SPED 5030/SPED 4030	Survey of Individual Differences/Survey of Exceptionalities
TCED 4010	Senior Seminar EC-12
TCED 5231/TCED 4231	Teaching Social Studies in the Elementary School/Social Studies Methods for EC-6
TCED 5232/TCED 4232	Teaching Science in the EC-6 Classroom/Science Methods for EC-6

TCED 5233/TCED 4233	Teaching Mathematics in the EC-6 Classroom/Mathematics Methods for EC-6
TCED 4738 and TCED 4798 or TCED 4768 and TCED 4769	Pre-Service Internship I & II or Post-Degree Internship I & II

Track D - Master's Degree with Focus on Individuals with Disabilities (EC-6)

Required (9 hours):

SPED 5233	Providing Positive Behavior Support
SPED 5132	Curricular Approaches to Learning Difficulties
SPED 5131	Educational Assessment of Exceptionalities

Master's Degree Options (6 hours):

Option 1: EDUC 6939 or	Master's Thesis Research
Option 2: EDUC 6839 or	Master's Project
Option 3: SPED 5133/SPED 5931	Practicum in Inclusive Education/Research Topics in Special Education

Option 3 requires prior completion of a minimum of 9 hours of the Professional Education Core and a minimum of 15 ECED/SPED hours completed from the 21 ECED/SPED hours on the plan.

MASTER OF SCIENCE IN EDUCATIONAL MANAGEMENT WITH PRINCIPAL CERTIFICATION

The graduate plan in Educational Management leads to the Master of Science (M.S.) degree with Principal Certification, if principal certification requirements are met. The master's degree in Educational Management consists of 33 hours of graduate coursework. Required for the master's degree are the completion of the Professional Education Core (12 hours), the Administration Core (18 hours) and the Capstone Experience/Graduate Practicum (3 hours). Students will be eligible to register for the graduate practicum after they have successfully completed at least 24 hours of the master's degree. Graduate

Practicum is only offered in the fall and spring semesters. A practicum application form must be completed and submitted by June 8 for the fall semester and October 1 for the spring semester in order to enroll in ADSU 6739, Graduate Practicum.

In order to fulfill principal certification requirements, students must successfully complete the 33 hours of M.S. degree coursework 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 School of Education (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 and

- A letter of support from a school building administrator

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032	Applied Statistics
EDUC 6033	Research Design and Analysis
INST 6031 ¹	Applications of Technology
SILC 6030	Foundations of Multicultural Education

Administration Core (18 hours):

ADSU 6030	Introduction to Educational Leadership
ADSU 6132	Curriculum
ADSU 6233	Principalship
ADSU 6437	School Law
ADSU 6533	Appraisal of Teaching
ADSU 6436	School Resource Management

Other Required Courses (1 hour):

ADSU 5010 ²	Professional Preparation Seminar
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Capstone Experience (3 hours):

ADSU 6739 ¹	Graduate Practicum
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¹Practicum 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 24 hours of the master’s degree and either a pass score on the Principal state assessment or a successful completion of ADSU 5010.

²Successful completion required prior to enrollment in ADSU 6739. Candidates passing the Principal state assessment prior to enrolling in ADSU 5010 will have this course waived.

MASTER OF SCIENCE IN EDUCATIONAL MANAGEMENT WITH PRINCIPAL CERTIFICATION WITH EMPHASIS IN SPECIAL EDUCATION

The graduate plan in Educational Management leads to the Master of Science (M.S.) degree with Principal Certification, if principal certification requirements are met. The master’s degree in Educational Management consists of 39 hours of graduate coursework. Required for the master’s degree are the completion of the Professional Education Core (12 hours), the Administration Core (24 hours) and the Capstone Experience/Graduate Practicum (3 hours). Students will be eligible to register for the graduate practicum after they have successfully completed at least 18 hours of the master’s degree. Graduate Practicum is only offered in the fall and spring semesters. A practicum application form must be completed and submitted by June 8 for the fall semester and October 1 for the spring semester in order to enroll in ADSU 6739, Graduate Practicum.

In order to fulfill principal certification requirements, students must successfully complete the 33 hours of M.S. degree coursework 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.

This plan is for students seeking Principal Certification along with added knowledge for working with special populations in their schools.

Students who meet the graduate admissions requirements to the School of Education (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 and
- A letter of support from a school building administrator

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

SILC 6030	Foundations of Multicultural Education
TCED 6031/INST 6031	Applications of Technology in the Classroom/ Applications of Technology
EDUC 6032	Applied Statistics
EDUC 6033	Research Design and Analysis

Administration Core (24 hours):

ADSU 6030	Introduction to Educational Leadership (prerequisite to ADSU 6533)
ADSU 6233	Principalship
ADSU 6436	School Resource Management
ADSU 6437	School Law
ADSU 6533	Appraisal of Teaching
SPED 5132	Curricular Approaches to Learning Difficulties
SPED 5131	Educational Assessment of Exceptionalities
SPED 5233	Providing Positive Behavior Support

Other Required Courses (1 hour):

ADSU 5010 ²	Professional Preparation Seminar
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Capstone Experience (3 hours):

ADSU 6739 ¹	Graduate Practicum
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¹Practicum 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 24 hours of the master's degree and either a pass score on the Principal state assessment or a successful completion of ADSU 5010.

²Successful completion required prior to enrollment in ADSU 6739. Candidates passing the Principal state assessment prior to enrolling in ADSU 5010 will have this course waived.

MASTER OF SCIENCE IN EDUCATIONAL MANAGEMENT

The graduate plan in Educational Management leads to the Master of Science (M.S.) degree. The master's degree in Educational Management consists of 33 hours of graduate coursework. Required for the master's degree are the completion of the Professional Education Core (12 hours), the Administration Core (18 hours) and the Capstone Experience (3 hours). Students will be eligible to register for the capstone experience

rience/ADSU 6735, Leadership Research Seminar, after they have successfully completed at least 24 hours of the master's degree. This plan leads to principal certification.

Students who meet the graduate admissions requirements to the School of Education (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).

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032	Applied Statistics
EDUC 6033	Research Design and Analysis
INST 6031	Applications of Technology
SILC 6030	Foundations of Multicultural Education

Administration Core (24 hours):

ADSU 6030	Introduction to Educational Leadership
ADSU 6132	Curriculum
ADSU 6233	Principalship
ADSU 6437	School Law
ADSU 6533	Appraisal of Teaching
ADSU 6436	School Resource Management

Capstone Experience (3 hours):

ADSU 6735	Leadership Research Seminar
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PRINCIPAL STANDARD EC- 12 CERTIFICATE FOR STUDENTS HOLDING A MASTER'S DEGREE

The Principal certificate plan consists of 21 hours of graduate coursework. Required for the plan are the completion of the Administration Core (18 hours) and the Capstone Experience/Graduate Practicum (3 hours). Students will be eligible to register for the graduate practicum after they have successfully completed at least 15 hours of the plan. Students are reminded that the graduate practicum is only offered in the fall and spring semesters. A practicum application form must be completed and submitted by June 8 for the fall semester and October 1 for the spring semester in order to enroll in ADSU 6739, Graduate Practicum.

In order to fulfill principal certification requirements, students must successfully complete the 21 hours of coursework, 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 (18 hours):

ADSU 6030	Introduction to Educational Leadership
ADSU 6132	Curriculum
ADSU 6233	Principalship
ADSU 6437	School Law
ADSU 6533	Appraisal of Teaching
ADSU 6436	School Resource Management

Other Required Course (1 hour):

ADSU 5010 ²	Professional Preparation Seminar
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Capstone Experience (3 hours):

ADSU 6739 ¹	Graduate Practicum
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¹Practicum 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 15 hours of the certificate and either a pass score on the Principal state assessment or a successful completion of ADSU 5010.

²Successful completion required prior to enrollment in ADSU 6739. Candidates passing the Principal state assessment prior to enrolling in ADSU 5010 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 University of Houston-Clear Lake (UHCL) School of Education (SoE). 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 SoE Office of Educator Certification.

SUPERINTENDENT CERTIFICATION

The Superintendent Certification plan requires the completion of 15 hours of specified coursework (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 Area Chair of Educational Leadership

Check prerequisites before enrolling in any courses.

The following courses are on the superintendent certification plan:

EDLS 7636	Politics and School Finance
EDLS 7637	Personnel Management
EDLS 7638	The Superintendent and School Community Relations
EDLS 7833	Superintendent Seminar
EDLS 7837	Superintendent Practicum

Other Required Course (1 hour):

EDLS 7010 ¹	Superintendent Professional Preparation Seminar
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¹Candidates passing the Superintendent state assessment prior to enrolling in EDLS 7010 will have this course waived.

UHCL BILINGUAL ADMINISTRATOR CERTIFICATE

Although the State Board for Educator Certification (SBEC) does not have a separate specialized certification to train bilingual students to work with English Language Learners (ELLs), University of Houston-Clear Lake (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 DESIGN AND TECHNOLOGY

The graduate plan in Instructional Design and Technology (INST) leads to the Master of Science (M.S.) degree that prepares graduates to systematically design training and instruction. One of the requirements for the successful completion of the M.S. in INST will be an electronic portfolio. INST students should enroll in INST 5131, Trends and Issues in Instructional Technology, as soon as possible since it will be the course in which students create the template and discover what to include in the e-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	Applied Statistics
EDUC 6033	Research Design and Analysis
INST 6031	Applications of Technology
SILC 6030	Foundations of Multicultural Education

Instructional Technology Core (15 hours):

INST 5130	Learning Theory and Instruction
INST 5131	Trends & Issues in Instructional Technology
INST 5233	Performance Technology
INST 5333	Systematic Design of Technology-Based Instruction
INST 5433	Instructional Design, Project Management and Grant Writing

Electives:

Choose one elective course 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

Option 2: EDUC 6839, Master's Project Research (3 hrs) - Minimum of two semesters required for a maximum of six hours, with continuous registration until completion

Option 3: INST 6739, Instructional Technology Practicum - and another INST elective course (Practicum requires prior completion of all Professional Education Core courses, INST Core courses and at least one INST elective from the plan)

Option 4: EDUC 6909, Master's Comprehensive Examination - Plus 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 (Practicum) for their capstone experience if the proposed practicum site is 50 or more miles from the University of Houston-Clear Lake (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 (M.S.) 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.

Professional Education Core (12 hours):

EDUC 6032	Applied Statistics
EDUC 6033	Research Design and Analysis
SILC 6030	Foundations of Multicultural Education
TCED 6031/INST 6031	Application of Technology in the Classroom/Applications of Technology

Track A - Bilingual Education (12 hours):

SILC 5031	Curriculum Issues in Educating the Bilingual Student
SILC 5032	Applied Linguistics for Bilingual Education/ESL
SILC 5134	Second Language Teaching
SILC 5531	Literacy for Spanish-Speaking Students

Support Area (6 hours):

SILC 5130	Theory and Research in Bilingual and ESL Education
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Choose one course from:

SILC 5034	Community Collaboration
SILC 5035	Interpersonal Interactions in Diverse Settings
SILC 5036	Multicultural Curriculum Development
Advised elective	

Other course if seeking certification (1 hour):

TCED 5010 ¹	Professional Preparation Seminar
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Master's Degree Options (6 hours):

EDUC 6839 or	Master's Project
EDUC 6939	Master's Thesis Research
or Comprehensive Examination plus six additional hours of approved coursework	

¹Students not passing the Bilingual Education or English as a Second Language (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	Applied Linguistics for Bilingual Education/ESL
SILC 5033	Cross-Curricular Literacy for Second Language Learners
SILC 5134	Second Language Teaching
SILC 6032	Models of Language

Support Area (6 hours):

SILC 5130

Theory and Research in Bilingual and ESL Education

Choose one course from:

SILC 5034

Community Collaboration

SILC 5035

Interpersonal Interactions in Diverse Settings

SILC 5036

Multicultural Curriculum Development

Advised elective

Other course if seeking certification (1 hour):TCED 5010¹

Professional Preparation Seminar

Master's Degree Options (6 hours):

EDUC 6839 or

Master's Project

EDUC 6939

Master's Thesis Research

or Comprehensive Examination plus six additional hours of approved coursework

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

Community Collaboration

SILC 5035

Interpersonal Interactions in Diverse Settings

SILC 5036

Multicultural Curriculum Development

Advised elective

Support Area (6 hours):

Advised electives

Other course, if seeking certification (1 hour):TCED 5010¹

Professional Preparation Seminar

Master's Degree Options (6 hours):

EDUC 6839 or

Master's Project

EDUC 6939

Master's Thesis Research

or Comprehensive Examination plus six additional hours of approved coursework

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 ESL 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 (M.S.) degree. The plan consists of a minimum of 39 semester hours.

Check prerequisites before enrolling in any courses.

Professional Education Core (12 hours):

EDUC 6032

Applied Statistics

EDUC 6033

Research Design and Analysis

SILC 6030	Foundations of Multicultural Education
INST 6031	Applications of Technology

Required Courses (15 hours):

LLS 5532 or LLS 5533	Selecting Literature and Materials for Young Adults or Selecting Literature and Materials for Children
LLS 5534	Foundations in Secondary Literacy
LLS 5738	Foundations of Early Literacy
LLS 6331	Sociolinguistic Applications to Reading
LLS 6732	Assessment and Remediation of Reading and LA Literacy

Electives (6 hours):

Advised hours from list below:

LLS 5131	Integrating the Language Arts
LLS 5134	Developmental Reading Programs for EC-8
LLS 5135	Developmental Reading Programs for Secondary Schools
LLS 5531	Critical Reading and Thinking
LLS 5532	Selecting Literature and Materials for Young Adults
LLS 5533	Selecting Literature and Materials for Children
LLS 5635	The Teaching of Writing
LLS 5636	The Teaching of Writing II
LLS 5736	Practicum: Assessment and Initial Instructional Techniques for Early Intervention of Literacy
LLS 5737	Practicum: Advanced Instructional Techniques and Summative Assessment Procedures for Early Intervention of Literacy
LLS 5931	Research Topics in Literacy, Language and Library Science

Master's Degree Options (6 hours):

LLS 6839 and LLS 6639 (requires prior completion of LLS 6732, 12 hours of LLS courses and all of the Professional Education Core) or EDUC 6839 or EDUC 6939	Practicum in School Literacy Practices and Leadership in Clinical Practices in Assessment of Literacy Tasks Master's Project or Master's Thesis Research
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MASTER OF SCIENCE IN READING WITH READING SPECIALIST STANDARD EC- 12 CERTIFICATE

This graduate plan in Reading leads to the Master of Science (M.S.) degree with a Reading Specialist Standard (EC-12) certificate . 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 Texas Examinations of Educator Standards (TE_xES) 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	Applied Statistics
EDUC 6033	Research Design and Analysis
SILC 6030	Foundations of Multicultural Education
TCED 6031/INST 6031	Application of Technology in the Classroom/Applications of Tech-

nology

Required Reading Courses (18 hours):

LLS 5532 or LLS 5533	Selecting Literature and Materials for Young Adults or Selecting Literature and Materials for Children
LLS 5534	Foundations in Secondary Literacy
LLS 5635	The Teaching of Writing
LLS 5738	Foundations of Early Literacy
LLS 6331	Sociolinguistic Applications to Reading
LLS 6732	Assessment and Remediation of Reading and LA Literacy

Other course (1 hour):

TCED 5010 ¹	Professional Preparation Seminar
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Master's Degree Options (6 hours):

LLS 6639 and LLS 6839 (requires prior completion of LLS 6732 and 12 hours of LLS courses)	Leadership in Clinical Practices in Assessment of Literacy Tasks and Practicum in School Literacy Practices
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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 and 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 Texas Examinations of Educator Standards (TExES) is required. The plan consists of a minimum of 24 semester hours.

Check prerequisites before enrolling in any courses.

Required Reading courses (18 hours):

LLS 5532 or LLS 5533	Selecting Literature and Materials for Young Adults or Selecting Literature and Materials for Children
LLS 5534	Foundations in Secondary Literacy
LLS 5635	The Teaching of Writing
LLS 5738	Foundations of Early Literacy
LLS 6331	Sociolinguistic Applications to Reading
LLS 6732	Assessment and Remediation of Reading and LA Literacy

Other course (1 hour):

TCED 5010 ¹	Professional Preparation Seminar
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Capstone Experience (6 hours):

LLS 6639 and LLS 6839 (requires prior completion of LLS 6732 and 12 hours of LLS courses)	Leadership in Clinical Practices in Assessment of Literacy Tasks and Practicum in School Literacy Practices
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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 (M.S.) 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	Applied Statistics
EDUC 6033	Research Design and Analysis
INST 6031	Applications of Technology
SILC 6030	Foundations of Multicultural Education

School Library Core (24 hours):

LLS 5532	Selecting Literature and Materials for Young Adults
LLS 5533	Selecting Literature and Materials for Children
LLS 6131	Selection and Use of School Library Materials
LLS 6132	Cataloging and Classification
LLS 6133	Reference and Bibliography
LLS 6231	Library Information and Retrieval Systems
LLS 6334	Administration of School Library Services
LLS 6336	Media and Technology Selection and Application

Capstone Experience (3 hours):

LLS 6739	School Library Practicum
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Other course (1 hour):

TCED 5010 ¹	Professional Preparation Seminar
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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	Selecting Literature and Materials for Young Adults
LLS 5533	Selecting Literature and Materials for Children
LLS 6131	Selection and Use of School Library Materials
LLS 6132	Cataloging and Classification
LLS 6133	Reference and Bibliography
LLS 6231	Library Information and Retrieval Systems
LLS 6334	Administration of School Library Services
LLS 6336	Media and Technology Selection and Application

Capstone Experience (3 hours):

LLLS 6739

School Library Practicum

Other courses (1 hour):TCED 5010¹

Professional Preparation Seminar

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 (M.S.) 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

Applied Statistics

EDUC 6033

Research Design and Analysis

INST 6031¹

Applications of Technology

SILC 6030

Foundations of Multicultural Education

Required Reading Courses (12 hours):

LLLS 5533

Selecting Literature and Materials for Children

LLLS 5534

Foundations in Secondary Literacy

LLLS 5738

Foundations of Early Literacy

LLLS 6331

Sociolinguistic Applications to Reading

School Library Core (21 hours):

LLLS 5532

Selecting Literature and Materials for Young Adults

LLLS 6131

Selection and Use of School Library Materials

LLLS 6132

Cataloging and Classification

LLLS 6133

Reference and Bibliography

LLLS 6231

Library Information and Retrieval Systems

LLLS 6334

Administration of School Library Services

LLLS 6336

Media and Technology Selection and Application

Required Reading Electives (6 hours):

LLLS 5635

The Teaching of Writing

LLLS 6732

Assessment and Remediation of Reading and Language Arts Literacy

Reading Capstone Experience (6 hours):

LLS 6639 and LLS 6839 (requires prior completion of LLS 6732, 12 hours LLS and all of the Professional Education Core) Leadership in Clinical Practices in Assessment of Literacy Tasks/Practicum in School Literacy Practices

Library Capstone Experience (3 hours):

LLS 6739 School Library Practicum

Other course (1 hour):

TCED 5010¹ Professional Preparation Seminar

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 Doctor of Education (Ed.D.) 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 Ed.D. program, the student is expected to have the following:

1. A master's degree and the equivalent of University of Houston-Clear Lake's (UHCL's) EDUC 6032, EDUC 6033, INST 6031 and SILC 6030
2. A UHCL Admissions Application
3. Official transcripts from each accredited institution attended sent to the Office of Admissions
4. A combined score of 297 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. Provide evidence of work and leadership experience in education, in particular, Pre-K to university educational settings.
6. A Letter of Intent, not to exceed 1000 words, should explain why you wish to pursue doctoral-level work in Educational Leadership by discussing your career goals and how the program in Educational Leadership will help you meet them. You should include a brief discussion of prior experiences that relate to your interest in, and aptitude for, the graduate program; scholarly and professional accomplishments.
7. Three reference forms from persons who can address the students' performance in graduate studies and potential for educational leadership. If possible, at least one of the reference forms should be from a professor involved in the applicant's master's program.
8. If applicable, provide a letter from an employer confirming support of the applicant's

pursuit of the Ed.D. and willingness to allow fieldwork within the organization. The Admission Requirements section of the UHCL Doctoral Web site has a form letter for the employer to sign.

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 his/her strong leadership qualities, provisional admission may be granted.

Once a student is admitted, any course in which the student makes a grade of "C-" or below cannot be counted toward the 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 (GPA) of 3.000 must be maintained.

The time frame for completion of the doctoral program is seven years from the start of the program. At the end of the seventh year, a doctoral candidate is allowed to petition the Associate Dean for a one-year extension, if the candidate's dissertation proposal has been approved. The candidate can petition the Associate Dean for a second and final one-year extension to complete the dissertation.

The structure of the Ed.D. program is as follows:

Check prerequisites before enrolling in any courses.

Leadership Core:

EDLS 7238	Marketing of Educational Services for Nonprofit Organizations
EDLS 8030	Organizational Leadership
EDLS 8130	Strategic Planning & Systems Alignment
EDLS 8132	Transition and Change Management
EDLS 8230	Ethics, Values and Social Responsibility
EDLS 8330	Human Resources Administration
EDLS 8430	Financial Resources Management

Research Core:

EDLS 7031	Quantitative Research I
EDLS 7032	Quantitative Research II
EDLS 7033	Qualitative Research
EDLS 7130	Program Evaluation
EDLS 8530	Research Seminar

Communication Core:

EDLS 7030	Dispute Resolution
EDLS 7034	Professional Writing & Communications
EDLS 7035	Intercultural Communication

Specialization:

12 hours from one area of specialization as follows:

Counseling:

EDLS 7230	Counseling Supervision
EDLS 7231	Advanced Crisis and Disaster Response
EDLS 7232	Evaluating Counseling Programs
EDLS 7233	Counseling as a Profession

Curriculum and Instruction:

EDLS 7136	Current Pedagogical Issues
EDLS 7137	Advanced Models of Teaching
EDLS 7138	Curriculum Design: Development, Implementation, Evaluation
EDLS 7139	Professional Development Principles and Practices

Higher Education:

EDLS 8630	Administration in Higher Education
EDLS 8631	Student Affairs in Higher Education
EDLS 8632	Law and Policy in Higher Education
EDLS 8633	Contemporary Issues in Higher Education

Reading:

EDLS 7131	Society, Language and Reading
EDLS 7132	Integrating Reading into the Curriculum
EDLS 7133	Writing Workshop in the Classroom I
EDLS 7134	Curriculum Writing Workshop in the Classroom II
EDLS 7135	Literacy Assessment for the Practitioner

Research Design, Measurement and Statistics:

EDLS 7330	Advanced Statistical Analysis
EDLS 7331	Advanced Qualitative Methods
EDLS 7332	Current Issues in Educational Measurement
EDLS 7333	Survey Design

Special Populations:

EDLS 7036	Policy & Programs- Special Populations
EDLS 7037	Assessment Issues- Special Populations
EDLS 7038	Curriculum Planning and Program Development- Special Populations
EDLS 7039	Family & Community Resources- Special Populations

Superintendent:

EDLS 7636	Politics and School Finance
EDLS 7637	Personnel Management
EDLS 7638	The Superintendent and School Community Relations
EDLS 7833	Superintendent Seminar
EDLS 7837	Superintendent Practicum

Dissertation¹:

EDLS 8939	Dissertation
EDLS 8969	Dissertation
EDLS 8999	Dissertation

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. Before 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. Completion of the course is dependent upon candidates passing all state assessments required for their degree/certification plan.
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

The course content has been approved by the Texas Education Agency and meets the guidelines for Instructional Leadership Development required for Administrators and Supervisors. This course focuses on principles and skills of educational leadership necessary to facilitate continuous campus improvement, including data-driven decision making, curriculum, instruction, assessment, developmental supervision, professional development, community partnerships, communication, organizational management and evaluation.

ADSU 6130: Administrative Systems

Technological applications for school administrative systems focusing on communication, presentation and management systems.

Prerequisite: ADSU 6030.

ADSU 6132: Curriculum

This course is designed to prepare building-level leaders to understand national and State of Texas practices and theory related to legal curricular issues as well as the design and alignment, implementation, analysis and methods of evaluation of school curriculum and school curricular programs.

ADSU 6233: Principalship

Application of interpersonal, technical, human and conceptual skills required of building-level administrators to engage in organizational vision-building, decision-making, problem-solving and effective leadership in learning environments; study of leadership approaches for use with various school constituencies.

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 6237: Student Legal Matters

This course addresses school law as it relates to student issues as well as legal requirements related to the implementation and maintenance of special programs that meet local, state and national needs and requirements.

Prerequisite: ADSU 6030.

ADSU 6333: Instructional Leadership

This course is designed to prepare building-level administrators to advocate, nurture and sustain an instructional program and campus culture that are conducive to student learning and staff professional growth. Students are required to conduct in-depth research on professional growth and/or development as it relates to formative evaluation.

Prerequisite: ADSU 6030 and ADSU 6434.

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

This course follows the official guidelines for training appraisers as required for the Texas Professional Development and Appraisal System. It is designed to apply legal requirements for all aspects of personnel management as well as prepare building-level administrators for legal issues related to teachers and employees.

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.

ADSU 6437: School Law

This course addresses state and federal school law and court decisions affecting the authority, responsibilities, liabilities and appeals related to the operations of public school systems and student issues as well as legal requirements related to the implementation and maintenance of special programs that meet local, state and national needs and requirements.

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 and 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 Practicum

Supervised internship in an approved educational environment. Written and oral reports required.

Prerequisites: Administrative Core courses, approval of associate dean, successful completion of ADSU 5010 and evidence of passing Principal TExES.

COUNSELING COURSES

COUN 5010: Professional Preparation Seminar

This course is designed to assist students in the School Counselor Certification Program to understand the state certification standards for successful entry into their chosen educational field. Completion of this course is dependent upon candidates passing all state assessments required for their degree/certification plan.

Prerequisites: COUN 5231, COUN 5432, COUN 6532, COUN 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 and 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: Counseling Practicum I

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: 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: 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 and to understand the counselor's role 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

Knowledge of theory and methodology of crisis prevention and intervention, incident debriefing, violence prevention and development of crisis intervention teams.

Prerequisites: COUN 6532 or COUN 6435 or permission of instructor.

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 6030, COUN 6232, COUN 6531, COUN 6532 and COUN 6731.

COUN 6731: Professional Seminar in Counseling

Advanced topics, including the latest research in counseling with an emphasis on ethical, legal and professional issues.

Prerequisite: COUN 5231.

COUN 6739: Counseling Practicum II

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 age three to nine. 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. Field experience required.

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 5336: Administration and Management of Programs for Young Children

Examination of principles of management and administration applied to early care and education programs with an emphasis on human resources, ethics, accreditation, legal concerns and program evaluation.

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 5332/SPED 5332 and ECED 5333/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: Early Childhood Education Practicum

Supervised internship in an early childhood setting.

Prerequisites: Completion of a minimum of nine hours of the Professional Education Core and 15 ECED hours from the M.S. 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 Research

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 6909: Master's Comprehensive Examination

Students approved to take the Master's Comprehensive Examination and who have completed their required course work may register for this course in order to take the examination.

Prerequisites: Approval of the instructor and the 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

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. Completion of the course is dependent upon candidates passing all state assessments required for their degree/certification plan.

Prerequisite: An approved, signed certification plan on file in the SoE.

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 from a qualitative perspective.

Prerequisite: EDLS 7031.

EDLS 7034: Professional Writing & Communications

Addresses public writing and presentation skills. This course includes the study of creating case studies; 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; the effective use of technology in presentations; and 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 and 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 when 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 7131-7134.

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

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.

Prerequisite: Permission of the instructor and two years experience as Licensed Professional Counselor or Certified School Counselor.

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.

EDLS 7232: Evaluating Counseling Programs

Focuses on comparing/contrasting a district's current counseling curriculum and suggesting changes that can strengthen the district's counseling related programs and policies.

Prerequisite: EDLS 7130.

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; and 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

Application of interpersonal skills in educational leadership and study of leadership approaches for use with various school constituencies.

Prerequisites: Approval of the associate dean/admission to the Superintendent Certification plan.

EDLS 7833: Superintendent Seminar

Contemporary theory and issues in School Leadership.

EDLS 7837: Superintendent Practicum

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 students' 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 8630: Administration in Higher Education

This course is designed to provide an overview of leadership and management principles and theories in higher education, (i.e., universities and community colleges). Key topics will include governance structures, personnel roles and functions, communication systems, decision making processes, interpersonal relationships, curriculum development, funding, accountability, remediation, planning and budgetary operations.

EDLS 8631: Student Affairs in Higher Education

This course is designed to provide a basic understanding of the impact of collegiate structures and environments on student development and learning. Key topics will include principles of student development, theories addressing the college student in the postsecondary setting, adult learning strategies, as well as administrative practices pertaining to recruitment, advisement, counseling, financial assistance, residential living, group organizations and campus services.

EDLS 8632: Law and Policy in Higher Education

This course is designed to provide legal and policy aspects of administration in higher education. Key topics will include admissions; student rights; personnel recruitment, hiring, supervision, evaluation and career development; budgeting and control in planning; retrenchment; and property usage.

EDLS 8633: Contemporary Issues in Higher Education

This course is designed to identify and analyze critical questions, complex topics and major trends facing higher education and to arrive at alternative solutions in effectively responding to these multifaceted issues such as accommodating discipline-specific developments, university governance structures, diversity in higher education, state and federal funding levels and serving evolving societal needs while preserving the tradition of higher learning.

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 and Issues in Instructional Technology

In this introductory course, participants will develop an essential understanding of the field of instructional technology, while learning about media utilization, diffusion of innovations, implementation, policies and regulations. This course uses case studies and team projects.

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. Students 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 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 Education

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 and 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: Instructional Technology Practicum

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 5010: Professional Preparation Seminar for Reading Specialists

This course is designed to assist students in the Reading Specialist Certification plan to understand the state certification standards for successful entry into their chosen field. Completion of the course is dependent upon candidates passing all state assessments required for their degree/certification plan.

Prerequisite: An approved, signed degree plan on file in the SoE.

LLS 5012: Professional Preparation Seminar for School Librarians

This course is designed to assist students in the School Library and Information Science Specialist Certification plan to understand the state certification standards for successful entry into their chosen educational field.

Completion of the course is dependent upon candidates passing all state assessments required for their degree/certification plan.

Prerequisite: An approved, signed degree plan on file in the SoE.

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, including 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

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 6839: Practicum in School Literacy Practices

Supervised field experiences with literacy teachers in EC-12 accredited schools.

Prerequisite: 12 hours reading course work including LLS 6732.

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: School Library Practicum

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 the associate dean.

LLS 6839: Practicum in School Literacy Practices

Supervised field experiences with literacy teachers in EC-12 accredited schools.

Prerequisite: 12 hours reading course work including LLS 6732.

STUDIES IN LANGUAGE AND CULTURE COURSES

SILC 5010: Professional Preparation Seminar for Educators of English Language Learners

This course is designed to assist students in the ESL Supplemental Certification Plan to understand the State certification standards for successful entry into their chosen educational field. Completion of the course is dependent upon candidates passing all state assessments required for their degree/certification plan.

Prerequisite: An approved, signed degree plan on file in the SOE.

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 5010: Professional Preparation Seminar for Special Educators

This course is designed to prepare students to successfully complete the SPED TExES and is designed to assist students in the SPED Supplemental Certification Plan to understand the State certification standards for successful entry into their chosen educational field. Completion of the course is dependent upon candidates passing all state assessments required for their degree/certification.
Prerequisite: An approved, signed degree plan on file in the SOE.

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 life span.

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: Practicum in Inclusive Education

This course focuses on the integration of content area knowledge, pedagogical theory and collaborative practices that are essential in the delivery of specifically designed instruction. Approved practicum placements will emphasize application in inclusive settings.

Prerequisites: SPED 5131, SPED 5132, SPED 5233

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 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.

Prerequisites: SPED 5030 and ECED 5031 or equivalents.

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 5332/SPED 5332 and ECED 5333/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

This course is designed to assist students to understand the State certification standards for successful entry into their chosen educational field. Completion of the course is dependent upon candidates passing all state assessments required for their degree/certification plan.

Prerequisite: An approved, signed degree or certification plan on file in the SoE.

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: Three 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 fourth to eighth grade 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 and strategies for assisting the gifted in developing interpersonal skills and issues surrounding the potential of the gifted to make 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 and 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: Curriculum and Instruction Practicum

Supervised internship in curriculum and instruction.

Prerequisite: Approval of the associate dean.



Assistant Professor of Science Education Vanessa Dodo Seriki works with students in the new School of Education Science Methods Lab in the Arbor Building.



Art is a big deal at UHCL and our art students are top-notch. In spring 2012, the new Arbor Building annexes opened, including one that features upgraded and expanded facilities for art students in our School of Human Sciences and Humanities.

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
- Industrial/Organizational Psychology
- 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 broad interdisciplinary plan of study or one that is more narrowly focused, resembling traditional departmental majors. With the help of faculty advisors, 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 Behavior Analysis)
- Human Factors/Ergonomics (see Psychology)
- Fitness and Human Performance
- Professional Writing (see Humanities)
- Women's Studies

ADMISSION INTO AN HSH DEGREE PROGRAM

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 coursework 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 on the GRE taken before August 2011 using the following formula: $(\text{GPA in the last 60 hours} \times 500) + \text{GRE Verbal} + \text{GRE Quantitative}$ or a minimum score of 350 on the GRE taken after August 2011 using the following formula: $(\text{GPA in the last 60 hours} \times 24) + \text{GRE Verbal} + \text{GRE Quantitative}$.

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 coursework, 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, Fitness and Human Performance, Literature or one of the Professional Psychology plans (Clinical Psychology, Family Therapy, School Psychology) have additional requirements and 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, Clini-

cal Psychology, Criminology, Cross-Cultural Studies, Family Therapy, Fitness and Human Performance, Industrial/Organizational Psychology, 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 coursework, 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 coursework and practicum requirements of the program will be eligible to sit for the Board Certified Behavior Analyst (BCBA) exam.

Admission

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: Bachelor's degree or higher, preferably in a related field such as psychology, education, or special education. In addition, applicants should identify coursework or practical experience associated with Behavior Analysis.

Degree Requirements

PSYC 5235	Learning Principles	3 hours
PSYC 5435	Conceptual Issues in Behavior Analysis	3 hours
PSYC 6031	Behavioral Assessment	3 hours
PSYC 6134	Biological Bases of Behavior	3 hours
PSYC 6218	Ethics and Professional Issues in Behavior Analysis	1 hour
PSYC 6228	Research Methods in Behavior Analysis	2 hours
PSYC 6238	Applied Behavior Analysis	3 hours
PSYC 6239	Behavioral Intervention I*	3 hours

PSYC 6331	Behavioral Intervention II*	3 hours
PSYC 6330	Research and Practicum in Applied Behavior Analysis**	6 hours

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

Select three of the following psychology electives (9 hours)

PSYC 5031	Human Growth and Development	3 hours
PSYC 5131	Psychopathology of Childhood	3 hours
PSYC 5532	Advanced Social Psychology	3 hours
PSYC 6036 and PSYC 6037	Research Design and Statistics I and II	6 hours
PSYC 6832	Advanced Cognitive Psychology	3 hours

*This seminar course includes class meetings and up to 10 hours per week of field activities in home, school and clinic settings.

**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).

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 coursework 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 courses listed below. For more information please contact Dr. Dorothea Lerman at lerman@uhcl.edu.

PSYC 5235	Learning Principles	3 hours
PSYC 6031	Behavioral Assessment	3 hours
PSYC 6218	Research Methods in Behavior Analysis	1 hour
PSYC 6228	Ethics and Professional Issues in Behavior Analysis	2 hours
PSYC 6238	Applied Behavior Analysis	3 hours
PSYC 6239 and PSYC 6331	Behavior Interventions I and II*	6 hours
PSYC 6330	Research and Practicum in Applied Behavior Analysis**	6 hours

*These courses includes class meetings and up to 10 hours per week of field activities in home, school and clinic settings.

**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 coursework is taken primarily in psychology, sociology, and cross-cultural studies, students are encouraged to take additional coursework 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.

Admissions

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.

Grades of "B-" or better must be earned for at least 30 hours of coursework. Grades of "C+" or below are not acceptable for these 30 hours.

Degree Requirements

PSYC 6036 and PSYC 6037
SOC 6730 and SOC 6731
CRCL 5031
CRCL 5035
PSYC 5031
SOC 5333
SOC 5236
SOC 5334
PSYC 6739/SOC 6739^{1,2}
PSYC 6839/SOC 6839
PSYC 6939/SOC 6939

Research Design and Statistics I and II OR
Graduate Statistics and Graduate Research Methods
Theories of Cultural Diversity OR
Human Rights and Social Justice
Human Growth and Development
Minorities and Majorities OR
Religion and Global Change OR
Social Stratification
Graduate Internship OR
Master's Project OR
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 coursework. This focus statement will be attached to the degree plan.

Capstone Notes

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 the 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 3.000 or better. The university reserves the right to deny admittance to or remove a specific student from a specific internship.

WOMEN'S STUDIES SUB-PLAN

As part of the Area of Specialization at least 9 hours selected from:

CRCL 5131	Gender, Culture and Power
PSYC 5337	Violence Against Women
PSYC 5533	Psychology of Gender, Race and Sexuality
PSYC 5732	Seminar in Feminist Theory (strongly recommended)
PSYC 5831	Gender and Cultural Perspectives in Therapy

An additional three hours of Women's Studies courses selected from graduate level HIST/LITR/HUMN/PHIL/ARTS plus an additional 3 hours of electives are required.

CLINICAL PSYCHOLOGY

For Master of Arts in Clinical Psychology, please see "Professional Psychology Plans."

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 coursework 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.

Undergraduate courses are not allowed for this degree.

Degree 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	Culture 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

Coursework Master's Option

Students selecting the coursework 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 coursework toward the MA 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 Requirements (9 hours)

CRCL 5031	Theories of Cultural Diversity
CRCL 5037	Theories and Practices of Mediation
CRCL 5631	Cross-Cultural Methods

Topic Courses (6 hours)

CRCL 5032	Political Economy
CRCL 5033	Religion and Community
CRCL 5035	Human Rights and Social Justice
CRCL 5131	Gender, Culture and Power
GEOG 5132	Urban Political Ecology

Program Courses (12 hours)

ANTH 5333	Peoples of Mexico and Central America
ANTH 5535	Cultures of Asia
CRCL 5039	Environment and Society

CRCL 5132	Women of Color
CRCL 5531	Families, Communities and Globalization
CRCL 5534	Native Americans
CRCL 5537	Topics in African Studies
CRCL 5538	Cultures of the Middle East
CRCL 5731	Seminar in American Multicultural Literature
GEOG 5134	Geographic Information Systems
HIST 5232	U.S. Social Movements
HIST 5432	Studies in European History
HIST 5434	Studies in Latin American History
HUMN 5035	Texts and Images III
LITR 5437	Literature and Culture
PSYC 5533	Psychology of Gender, Race and Sexuality
SOCI 5333	Minorities and Majorities
SOCI 5537	Urban Problems

Electives: 3 hours required

Select any of the above courses OR select another course with approval of adviser.

Master's Option: 6 hours required

CRCL 6939 Master's Thesis Research, CRCL 6839 Master's Project Research, or CRCL 6739 Graduate 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.

Coursework Option:

Students selecting a coursework option will complete 36 hours of courses plus CRCL 6735 Research Seminar in Cross-Cultural Studies for a total of 39 hours.

Tracks

In order to organize their studies, explore a specific topic, and prepare for careers, students may select one of the following tracks or concentrations.

Urban Studies (select three of the following courses)

ANTH 5931	Research Topics (when topic is Public Culture)
CRCL 5039	Environment and Society
GEOG 5132	Urban Political Ecology
GEOG 5134	Geographic Information Systems
SOCI 5537	Urban Problems

Religions in Dialogue (select three of the following courses)

CRCL 5033	Religion and Community
CRCL 5931	Research Topics (when topic is Islam in Society)
CRCL 5931	Research Topics (when topic is Religions in Dialogue)
HUMN 5336	Philosophy in Religion

Women, Gender, and Sexuality (select three of the following courses)

CRCL 5131	Gender, Culture and Power
CRCL 5132	Women of Color
CRCL 5531	Families, Communities and Globalization
CRCL 5538	Cultures of the Middle East
HIST 5232	U.S. Social Movements (when topic is American Feminisms)
PSYC 5533	Psychology of Gender, Race and Sexuality

Latin American Studies (select three of the following courses)

ANTH 5333/CRCL 5232	Cultures of Mexico and Central America
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GEOG 5931
HIST 5434
WMST 5931

Research Topics (when topic is Geography of Latin America)
Studies in Latin American History
Research Topics (when topic is Latina and Latin American Feminisms)

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 production.

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 coursework 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.

Admission

Students without adequate undergraduate experience in computer software or graphics may be required to take additional preparatory courses at the undergraduate level before entering the program. Students must have previously taken a course in Digital Photography, Computer Imaging, or similar dedicated Photoshop coursework. Students without previous Photoshop coursework may be provisionally accepted into the program but will need to complete one before continuing past the core courses.

EQUIPMENT AND SOFTWARE

The University provides on-campus labs containing computers and software needed for coursework. Students wishing to work from home may need to purchase equipment and software. A DSLR camera is highly recommended for students concentrating in either Graphics or Production. Students wishing to specialize in video production may want to consider a digital video camera. See the program website for more hardware and software details.

Degree 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 a Digital Society
DMST 5233	Digital Media Law and Ethics Seminar
DMST 5234	Public Relations Writing
DMST 5831	Project Management
MKTG 5031	Marketing Management
MKTG 5435	E-Marketing Management
MGMT 5636	Management of Technology
MGMT 5638	Leading Technology

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	Video Digital Storytelling
DMST 5332	Compositing
DMST 5436	Flash Animation
DMST 5534	Single Camera Video Production
DMST 5535	Broadcast Video Production
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.

**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 OR	Master's Project OR
DMST 6939	Master's Thesis

FAMILY THERAPY

For Master of Arts in Family Therapy, please see Professional Psychology plans.

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.

Admissions

Applicants should possess an undergraduate Bachelor's degree in Kinesiology, Exercise Science, or other similar degree. Any applicant without a background in these areas will be required to take the HLTH 4738 Capstone course during their first semester in the program. Additional entrance requirements are a minimum of a 3.000 GPA in the last 60 hours and an average of a 25 percentile score on the three components of the GRE.

Degree Requirements

Core Requirements (21 hours)

HLTH 5131	Applied Exercise Physiology: Neuromuscular
HLTH 5132	Applied Exercise Physiology: Cardiopulmonary
HLTH 5133	Sports Nutrition
HLTH 5335	Exercise Principles for Special Populations
HLTH 6032	Advanced Seminar in Sports Medicine
HLTH 6033	Lab Techniques and Research Design
HLTH 6035	Statistics in Exercise Science

Select 9 hours from the following:

HLTH 5231	Techniques in Human Performance
HLTH 5931	Research Topics in Health Education
HLTH 5939	Independent Study in Health
HLTH 6037	Advanced Seminar in Peak Performance

Additional 6 hours of adviser approved coursework

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

HLTH 6839 Master's Projects, HLTH 6939 Master's Theses, and HLTH 6739 Graduate 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.

Any student planning on the internship option should complete an FHP Internship Application by the graduation application deadline of the semester prior to beginning the internship. Your adviser will provide the FHP Internship Application.

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 Per-

formance, 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 OR	Advanced Seminar in Sports Medicine OR
HLTH 6037	Advanced Seminar in Peak Performance

DUAL DOCTOR OF CHIROPRACTIC/MS PROGRAM REQUIREMENTS:

Qualifying students may choose to apply for and enter the Joint Doctor of Chiropractic (DC), Master of Science (MS) at the Texas Chiropractic College (TCC) and UHCL. The DC and MS degrees are conferred by the TCC and UHCL, respectively. Entry into the program requires independent university acceptance by the admissions office and acceptance into the Fitness and Human Performance Program. Completion of the joint program will provide students with an opportunity to earn a clinical doctorate degree while gaining theoretical knowledge and practical field experience in exercise/sports science. Additionally, the dual degree program will:

1. Provide students with advanced knowledge in the physiological and physical mechanisms underlying exercise adaptation.
2. Provide students with the knowledge needed to design and implement evidence-based strength and conditioning programs.
3. Prepare students for employment in medically-oriented environments that place emphasis on research or the application of exercise science knowledge.
4. Provide students with the knowledge and degree necessary to sit for state chiropractic licensing exams.

Students currently enrolled in the TCC-DC program who wish to enroll in the MS in Fitness and Human Performance program must:

1. Complete the UHCL application form and pay the appropriate application fee at the TCC registrar's office. Copies of the student's official TCC transcripts showing conferred BS degree will be made for the FHP graduate department at UHCL.
2. Earn passing grades in all Tri-1 through Tri-5 courses at TCC.
3. Prior to enrollment in the dual-program, the student must earn a bachelor's degree or have earned TCC's Bachelor of Science (BS) degree in Human Biology (at the completion of Tri-5).
4. Earn a TCC GPA of 3.000 or higher at the time of application to the program.

5. Students who apply to the dual DC-MS program are required to follow all UHCL academic standards and policies in addition to those of TCC.
6. Upon acceptance into the program, students must maintain a 3.000 or better GPA at UHCL. If cumulative GPA falls below 3.000, students will be placed on academic probation. In such case, students will be required to maintain a semester GPA of 3.000 or higher until the grade point deficiency is removed. Failure to adhere to this standard will result in academic suspension (see graduate catalog for details). Students scoring "C-" or lower on any MS course will be required to retake the course for credit.

Students enrolled in the Dual DC-MS program will complete a total of 30 hours of advanced courses in the MS program at UHCL. Course requirements for HLTH 6032 (Advanced Seminar in Sports Medicine) and a concentration course of a student's choice will be waived contingent upon earning a grade of "B" or higher in the following TCC classes: CH 6432: Orthopedics I; and CP 6212: Physical Medicine and Rehabilitation.

Students will pay current UHCL tuition and fees for all courses they are enrolled in. In addition, students will be responsible for any optional fee selected (parking etc.). UHCL will prepare its standard third party contract invoice at the end of the registration period for all students registered under the TCC agreement. The invoice will be mailed to TCC and payment is required within 30 days of receipt of invoice. Any refunds will be processed according to the current UHCL refund schedule and refunded to TCC. If students need to register for additional trimesters at TCC beyond Tri-aa for the sole purpose of completing their MS degree, they will only be charged UHCL tuition and fees related to their remaining coursework and not general TCC tuition and fees.

It is students' obligation to schedule their coursework to complete the degree in a timely manner. TCC is not responsible for students failing to complete the coursework necessary to earn the MS degree. Copies of students' UHCL coursework will be available to TCC to monitor each student's progression in the MS program. Students must complete the MS degree within five years of starting their first course or they will be automatically dismissed from the joint program and will not receive the MS degree. Students will be eligible to attend graduation at UHCL upon completion of their 30 hour MS degree. Graduation paperwork can be filled out with the TCC registrar. Any unforeseen clarifications of this joint degree program will be handled by the TCC and UHCL Provost.

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 coursework 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 the fall semester only. Students may choose to concentrate their studies in

American, European or Latin American history; however, at least nine hours of HIST courses must be taken outside the student's chosen concentration. Six of these nine semester credit hours may come from the same area; for example, a student who chooses to concentrate her studies in American history must take at least three semester credit hours in European history and three semester credit hours in Latin American history with the remaining three hours from either field.

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 coursework plus written and oral comprehensive examinations in the last semester. Students must register for the zero-credit hour course HIST 6909: History Comprehensive Exam during the final semester of the degree. 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 empha-

sizes 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 coursework). 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, DMST, 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.

Core Requirements (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), COMM, DMST, HIST, HUMN, LITR, and PHIL. Sub-Plan II, Images, includes coursework in studio art, lens media (photography and video), and visual communication (graphic design). 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.

Students should note that many graduate DMST courses have prerequisites.

Master's Options

Students select one of the following options for completing the MA in Humanities degree:

- Thesis Option (30 hours): 24 hours of coursework plus 6 hours of thesis research
- Project Option (36 hours): 30 hours of coursework plus 6 hours of project research (HUMN 6839)
- Internship Option (36 hours): 30 hours of coursework plus 6 hours of internship (HUMN 6739)
- Coursework Option with Comprehensive Exam (36 hours): 36 hours of coursework plus a comprehensive written examination. Students must enroll in HUMN 6909 in the semester in which they intend to take the examination.

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 SUB-PLAN

Students concentrating in American Studies select Sub-Plan I, Texts, and complete a minimum of 15 hours of coursework 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	Cultures of Mexico and Central America
HIST 5132	The Civil War and Reconstruction
HIST 5133	Antebellum America, 1815-1865
HIST 5138	Local History Seminar
HIST 5232	U.S. Social Movements
HIST 5233	U.S. 1877-1919
HIST 5234	U.S. 1919-1945
HIST 5235	U.S. Since 1945
HIST 5237	Nazi Cinema and the Third Reich
LITR 5431 ¹	American Literature
LITR 5731 ¹	Multicultural Literature
SOCI 5333	Minorities and Majorities
SOCI 5334	Social Stratification
SOCI 5336	Law and Society

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.

APPLIED GRAPHIC DESIGN SUB-PLAN

Students who wish to complete a concentration in Applied Graphic Design will select Sub-Plan I, Texts. A minimum of 15 hours is required for the concentration; 12 hours must come from 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.

ART HISTORY SUB-PLAN

Students concentrating their studies in Art History select Sub-Plan I, Texts, and complete a minimum of 15 hours of coursework in art history electives. For this concentration, only the thesis and coursework option are permitted. Students in the coursework

option must select a balanced plan of study with the approval of their adviser. The thesis is a substantial, documented research paper in art history.

PROFESSIONAL WRITING SUB-PLAN

Students who wish to complete a concentration in Professional Writing will select Sub-Plan I, Texts. A minimum of 15 hours is required for the concentration; 12 hours must come from Professional Writing courses. Theses, projects or internships will deal with Professional Writing subjects.

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 SUB-PLAN

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.

INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY

The Master of Arts (MA) plan in Industrial/Organizational Psychology is designed to offer a two-year terminal degree that prepares students to contribute to an organization's success by improving the performance and well-being of its employees. Students will learn about individual differences, their assessment and evaluation as well as organizational theories and interventions. The program follows the scientist/practitioner model, providing students with knowledge of psychological theories and principles and how those principles apply to solving human behavior problems in organizations. This will prepare students to enter organizations in both the public and private sector in human resource management, organizational development, and management consulting. The degree requires 42 hours with a thesis, project, internship; or 45 hours with the course-work option.

Degree Requirements

Core Course Requirements (24 hours)

PSYC 6036	Research Methods and Statistics I
PSYC 6037	Research Methods and Statistics II
PSYC 5331	Personnel Psychology
PSYC 5334	Organizational Psychology
PSYC 6734	Change and Organizational Development
PSYC 5135	Assessment in Industry
PSYC 6133	Professionals Issues in Human Services
PSYC 6538	Performance Appraisal and Feedback

12 hours of Approved Electives (12 hours)

Capstone Option - Select from one of the following options (6-9 hours).

PSYC 6739 or	Graduate Internship (6 hours) or
PSYC 6839 or	Master's Project (6 hours) or
PSYC 6939 or	Master's Thesis (6 hours) or
PSYC 6735	Seminar in I/O Psychology & 6 hours of additional electives

Coursework Option

Students selecting the coursework option will take all 24 hours of coursework listed under the core requirements plus PSYC 6735 Seminar in I/O Psychology plus 18 hours of approved electives.

Sample Prescribed Elective Courses

PSYC 5235	Learning Principles
PSYC 5333	Leadership in Organizations
PSYC 5335	Life/Work Planning
PSYC 5339	Training & Development
PSYC 5530	Group Dynamics and Teamwork
PSYC 5532	Advanced Social Psychology
PSYC 5536	Health in the Workplace-Occupational Health Psychology
PSYC 5735	Anxiety & Stress Management
PSYC 6134	Biological Basis of Behavior
PSYC 6434	Human Factors Engineering
PSYC 6735	Seminar in I/O Psychology
HMRS 5231	Legal Environment in Human Resources Management
MGMT 5133	Teamwork and Leadership Skills

Note: Only grades of "B-" or better will count toward the Master of Arts in I/O Psychology. Grades of "C+" or below are not acceptable.

LITERATURE (MASTER OF ARTS)

Graduate studies in Literature at UHCL lead to the Master of Arts (MA) 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.

Admission

Applicants for admission should have taken at least 12 hours of upper-division undergraduate literature, and have a 3.000 GPA in literature coursework. With permission of the faculty adviser, a student may take a 5000-level graduate LITR course while in the final semester of upper-division 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 advisor from the full-time Literature faculty. Early in the first semester, the candidate meets with the faculty advisor to create an individual Candidate Plan of Study (CPS).

The Literature M.A. offers two plans of study featuring two "capstones":

- Coursework-Comprehensive Option (default plan): 36 hours of coursework + com-

prehensive written exam.

- Thesis Option: 30 hours of graduate coursework + minimum of 6 hours thesis + defense conference.

All students initially register for the Coursework-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 option, it rarely requires additional semesters.

Students who wish to pursue the Thesis option must petition for reclassification as they approach the 30-hour course work minimum. Procedures for both 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 18 hours of Literature courses focused on analysis of literary texts that satisfy the following distribution requirements:

- Two courses in British literature, one pre-1800 and one post-1800.
- One course in American literature.
- One course in Multicultural/World literature.
- Two more courses devoted to the study of literary texts.

Minimal numbers of LITR and graduate hours

Most of an M.A. student's coursework must be in graduate Literature courses: courses listed under the LITR rubric with numbers in the 5000 series.

Each Capstone Option requires a minimal number of graduate LITR courses.

- Coursework-Comprehensive Option: at least 27 of 36 coursework hours must be graduate LITR.
- Thesis Option: at least 24 of the 30 coursework hours must be graduate LITR.

All non-LITR courses must be approved by faculty advisers and support the primary graduate LITR course in an intellectually coherent plan of study.

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.
- Coursework-Comprehensive Option: a minimum of 36 semester hours of coursework. Students must enroll in LITR 6909 in the semester during which they intend to take the exam.

Master's theses require continuous registration during each fall and spring semester until completion, for a minimum of six hours for theses. If students do not maintain continuous registration in the Master's 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

LITR 5037
LITR 5038
LITR 5039
LITR 5131

Writing for the Technical Professions
Writing for the Business Professions
Editing
Studies in Composition and Rhetoric (recommended for students
who plan to teach Professional Writing)

PROFESSIONAL PSYCHOLOGY PLANS

The graduate programs in Professional Psychology lead to the Master of Arts (MA) or Specialist in School Psychology (SSP) degree. These plans provide a background in psychology as an academic discipline along with specific coursework 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 typical 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.

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:
 - a. The Professional Psychology Programs Application (form found in the program brochure or on the university's Web site).

- b. A brief curriculum vitae (a résumé including relevant coursework and paid or volunteer work experiences, any honors, presentations, papers, and other life experiences that should be considered).
- c. A brief (up to 1000 word) essay stating reasons for wanting this training and how it fits into career goals.
- d. Three Recommendations for Applicant Admission (form found in the program brochure or on the university's website).
- e. 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.
- f. A \$35 check or money order made payable to: UHCL Professional Psychology Plans.
- g. Scores on the Graduate Record Examination (GRE) General Test.
- h. 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

- **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 ensure 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.
- **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. Applicants should direct any questions regarding the status of their application to the Coordinator of 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 HSH advising office. However, applicants to a non-clinical master's plan should be aware of the information in the section below entitled "Restricted Courses."

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 and Research
PSYC 5236	Family Assessment
PSYC 5239	Group Psychotherapy
PSYC 5731	Basic Psychotherapy Skills
PSYC 5734	Professional Practice, Law and Ethics
PSYC 5738	Family Therapy Practicum
PSYC 5832	Clinical Hypnosis
PSYC 6032	Intellectual Assessment
PSYC 6033	Personality Assessment
PSYC 6034	Consultation in School Psychology
PSYC 6038	Clinical Practicum
PSYC 6039	School Psychology Practicum
PSYC 6111	Student Diversity in Learning
PSYC 6121	Ethics and Law in School Psychology
PSYC 6132	Seminar in Professional School Psychology
PSYC 6133	Personality Assessment of the Child
PSYC 6137	Family Research
PSYC 6139	Intervention I: Academic and Cognitive Skills
PSYC 6230	Intervention II: Social and Behavioral Skills
PSYC 6231	Intervention III: Affective and Adaptive Skills
PSYC 6233	Advanced Family Therapy
PSYC 6234	Systems and Symptoms
PSYC 6236	Child and Adolescent Family Therapy
PSYC 6332	Intervention IV: Program Design
PSYC 6531	Psychopathology
PSYC 6534	Couple and Sex Therapy
PSYC 6636/ PSYC 6666	Clinical Internship

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.

CLINICAL PSYCHOLOGY (MASTER OF ARTS)

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 Professional Counselors and/or Psychological Associates.

Prerequisites (15 hours)

Fifteen hours of undergraduate psychology coursework in Introductory Psychology, Theories of Personality, Abnormal Psychology, Social Psychology, and three additional hours of upper-level psychology.

Degree Requirements

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.

Core Requirements (21 hours)

PSYC 5031	Human Growth and Development
PSYC 6531	Psychopathology
PSYC 5235	Learning Principles
PSYC 5734	Professional Practice, Law and Ethics
PSYC 6036 and PSYC 6037	Research Design and Statistics I and II
PSYC 6134	Biological Basis of Behavior

Sociocultural Elective (select one course, 3 hours)

PSYC 5136	Multicultural Counseling
PSYC 5437	Aging
PSYC 5533	Psychology of Gender, Race and Sexuality
PSYC 5534	Minorities and Majorities
PSYC 5535	Cross-Cultural Perspective on the Family
PSYC 5831	Gender and Cultural Perspective in Therapy

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 and Research
PSYC 5731	Basic Psychotherapy Skills
PSYC 5239	Group Psychotherapy
PSYC 6235	Behavioral/Cognitive Therapies

Therapy Electives (select two courses, 6 hours)

PSYC 5138	Mindfulness and Acceptance Therapies
PSYC 5233	Introduction to Family Therapy
PSYC 5434	Introduction to Art Therapy Theory and Practice
PSYC 5735	Anxiety and Stress Management
PSYC 5736	Behavioral Medicine
PSYC 5831	Gender and Cultural Perspective in Therapy
PSYC 5832	Clinical Hypnosis
PSYC 6534	Couple and Sex Therapy

Other courses may be substituted with consent of adviser.

Free Elective (3 hours)**Supervised Clinical Experience PSYC 6038 and PSYC 6636 (total of 12 hours)**

TOTAL HOURS = 63

FAMILY THERAPY (MASTER OF ARTS)

The Family Therapy Program provides academic coursework, clinical training, and supervision that prepare students for careers as creative, caring and competent professional couple and family therapists. The program is accredited by the Commission of Accreditation for Marriage and Family Therapy Education (AAMFT.org) and prepares the student for licensure as a Marriage and Family Therapist (LMFT) in Texas. Completion of the degree also fulfills the coursework requirements needed to take the Licensed Professional Counselor (LPC) Exam in Texas. The UHCL Family Therapy Program prepares students to do research-based, effective relationally-oriented therapy with couples, families, individuals, and groups.

Admissions

The Family Therapy Selection Committee accepts a limited number of students into the program based on review and evaluation of the criteria required for application. These criteria include: Complete application (application form, vita, GRE Scores, essay, and three professional letters of reference - professor/academic preferred); official transcripts of all previous course work; GPA of 3.200 or above; GRE of 297 (1000 for older versions of GRE) or above preferred (Verbal & Quantitative); six hours of undergraduate Behavioral Science coursework which must include Theories of Personality and Abnormal Psychology.

Foundation Classes (6 hours)

Six hours of undergraduate Behavioral Sciences coursework in Theories of Personality and Abnormal Psychology. Similar courses may be substituted for these classes, and coursework from various classes may meet these content requirements as well.

Degree Requirements

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 (45 hours)

PSYC 5031	Human Growth and Development
PSYC 5233	Introduction to Family Therapy
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 semesters /six credits)
PSYC 6137	Family Research
PSYC 6233	Advanced Family Therapy
PSYC 6234	Systems and Symptoms
PSYC 6236	Child and Adolescent Family Therapy
PSYC 6531	Psychopathology
PSYC 6534	Couple and Sex Therapy

Elective (select one course - 3 hours)

PSYC 5437	Aging
PSYC 5533	Psychology of Gender, Race and Sexuality
PSYC 5535	Cross-Cultural Perspective on the Family
PSYC 5931	Research Topics in Psychology

Other courses allowed for elective with consent of adviser

Internship (9 hours)

PSYC 6636	Clinical Internship
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Three semesters with a minimum of 400 hours of direct client contact. Internships are completed at approved sites throughout the Houston area.

TOTAL HOURS = 54-63

NOTE: Students are expected to join the American Association for Marriage and Family Therapy (AAMFT) while they are in the program.

SCHOOL PSYCHOLOGY (SPECIALIST 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 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 coursework, 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 Orientation to School Psychology, School Psychology Professional Seminar, Practicum, Consultation and Internship courses plus any other assigned coursework to meet the substantial equivalent of the UHCL School Psychology Program.

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: the application (application form, vitae, essay, and three letters of reference); official transcripts of all previous coursework; GPA of 3.250 or above; GRE of 145 and above for Verbal and 145 and above for Quantitative preferred; 12 hours of undergraduate Behavioral Sciences coursework 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 the 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 coursework; 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 examina-

tion designed to assess the entry-level knowledge and skills that might be expected of a specialist-level school psychologist. It is recommended to be taken during the first semester of internship placement. For graduation, students must obtain a score not less than ½ of the 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 coursework 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. All courses listed below are required for the degree.

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 School Psychology Practicum
 PSYC 6111 Student Diversity in Learning
 PSYC 6121 Ethics and Law in School Psychology
 PSYC 6133 Personality Assessment of the Child
 PSYC 6139 Intervention I: Academic and Cognitive Skills

Semester 4 (Spring)

PSYC 6034 Consultation in School Psychology
 PSYC 6039 School Psychology Practicum
 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

Semester 5 (Fall)

PSYC 6666

Clinical Internship

Semester 6 (Spring)

PSYC 6666

Clinical Internship

PSYCHOLOGY (MASTER OF ARTS)

For the MA programs in Clinical Psychology, Family Therapy, and the SSP program in School Psychology, please look under "Professional Psychology." For program in Industrial-Organizational Psychology please look under "Industrial-Organizational Psychology."

The graduate program in General Psychology leads to the Master of Arts (MA) degree. The program is a vehicle for advanced study of human behavior and provides students with a variety of theoretical perspectives from across psychology such as social, cognitive, developmental, and neuropsychology. The program is designed for students planning to work in social service or research centers, teach at the community college level, or pursue a doctoral program at another institution.

The 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.

Prerequisites

The following prerequisites are required for this degree.

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.

Degree Requirements

Core Classes (18 hours)

PSYC 6036 and PSYC 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 6134¹ Biological Basis of Behavior 3 hours

¹(If an equivalent undergraduate course was taken, substitute PSYC 5432 Psychoactive Drugs)

Master's Option

Students select one of the options listed below:

PSYC 6739 Graduate Internship^{1,2,3} 6 hours

PSYC 6839 Master's Project¹ 6 hours

PSYC 6939 Master's Thesis¹ 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, e.g. casework such as intakes, crisis hotline, one-on-one client interaction. If an equivalent course has been taken such as PSYC 4032 Interviewing and Assessment, then the student will choose another graduate elective course

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).

For more information about applying for this sub-plan please contact Dr. Camille Peres.

Research and Statistics (6 hours)

PSYC 6036	Research Design and Statistics I
PSYC 6037	Research Design and Statistics II

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 6419 ¹	Seminar in Applied Cognitive Psychology
PSYC 6439 ²	Practicum in Applied Cognitive Psychology

Applied Cognitive Psychology Elective (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 ³	Graduate Internship OR
PSYC 6939 ³	Master's Thesis

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 6439 Practicum in Applied Cognitive Psychology.

HUMAN FACTORS/ERGONOMICS CERTIFICATE

Students enrolled in the Human Factors/Ergonomics Certificate program complete the following courses. For more information please contact Dr. Camille Peres.

PSYC 6036 and PSYC 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

SOCIAL ISSUES SUB-PLAN

This applied approach focuses on the Social Issues Sub-plan. Famous psychologist Kurt Lewin called for social science researchers to connect theory with real world social problems when he said, "There is nothing so practical as a good theory." Through course-work exposure to current psychological scholarship on social issues and its application to real world problems, students gain access to strategic approaches for addressing social issues in research, teaching, community, and non-profit settings. Success and invaluable experience will provide guidance in future years of applied social issues work. Students will learn how psychology research informs social justice action and social policy efforts for challenging group disparities. Some social issues addressed by the sub-plan include prejudice/stereotyping/discrimination, oppression and privilege, social forces affecting marginalized groups (e.g., LGBT community, people of color, women), poverty, conflict mediation, activism and advocacy.

Research and Statistics (6 hours)

PSYC 6036 and PSYC 6037 Research Design and Statistics I and II

Core Psychology Courses (Select 3 classes - 9 hours)

PSYC 5031	Human Growth and Development
PSYC 5235	Learning Principles
PSYC 6134	Biological Basis of Behavior
PSYC 6832	Advanced Cognitive Psychology

Required Social Issues Courses (12 hours)

PSYC 5532	Advanced Social Psychology
PSYC 5533	Psychology of Race, Gender and Sexuality
PSYC 6012	Social Issues Seminar (1-hour course; 3 semester minimum enrollment)
PSYC 6035	Social Issues Methods and Analysis

Social Issues Electives (Select 2 classes - 6 hours)

CRCL 5131	Gender, Culture and Power (cannot choose this if you have already taken the undergraduate course Women in Society).
PSYC 5438	Development of Gender and Racial Identity
PSYC 5137	Trauma and Resilience
SOCI 5035	Human Rights and Social Justice
SOCI 5337	Complex Organizations
SOCI 5433	Social Conflict and Mediation

Master's Option (6 hours)

PSYC 6739	Graduate Internship (6 hours)*
PSYC 6939	Master's Thesis (6 hours)

*Interns must also take PSYC 5135 Professional Ethics (3 hours). If internship placement involves social services, PSYC 5134 Interviewing & Assessment (3 hours) is also required. If outside social services, student must choose a 3rd elective from the sub-plan electives list.

Total Hours: 39 hours (for thesis students); 45 (for internships students)

SCHOOL PSYCHOLOGY (SSP)

For "Specialist in School Psychology" please see "Professional Psychology plans."

SOCIOLOGY (MASTER OF ARTS)

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, and 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 coursework. 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

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 SOCI 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 oral defense with a thesis committee consisting of at least two committee members.

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 SOCI Elective classes	12 hours
SOCI 6839	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 SOCI Elective classes	12 hours
SOCI 6739	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
SOCI 5633	American Immigration Studies
SOCI 5731	Politics and Protest
SOCI 5732	Social Problems and Dystopian Film

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 students better plan for their career and/or doctoral educational goals.

1. Graduate Concentration in Diversity (must successfully complete 3 of the following courses):

SOCI 5236	Religion and Global Change
SOCI 5333	Minorities and Majorities
SOCI 5334	Social Stratification

SOCI 5633 American Immigration Studies

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 3 of the following courses):

GEOG 5132 Urban Political Ecology
GEOG 5134 Geographic Information Systems
SOCI 5333 Minorities and Majorities
SOCI 5334 Social Stratification
SOCI 5537 Urban Problems
SOCI 5633 American Immigration Studies

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 at womensstudies@uhcl.edu.

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

SCHOOL OF HUMAN SCIENCES AND HUMANITIES COURSES

ANTHROPOLOGY COURSES

* Pending Coordinating Board Approval

ANTH 5032: Political Economy

Surveys current anthropological approaches to political and economic issues. (Crosslisted with CRCL 5032 Political Economy).

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: Topics in African Studies**

Investigation of cultural diversity of African societies and African diaspora. Students will engage with methods, theories and case studies and gain skills required to conduct research on the topic. May be repeated for credit with permission of instructor. (Cross listed 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. Permission of instructor required.

ARTS 5331: Painting-Drawing-Printmaking

Supervised projects. May be repeated for credit. Permission of instructor required.

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. Permission of instructor required.

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 Graphic Design 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 Graphic Design or permission of instructor.

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. Permission of instructor required.

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 Criminological Research and Statistics I.

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 Advanced Juvenile Delinquency).

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 Advanced Criminology).

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 White-Collar Crime).

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 Criminal Justice and the Mass Media).

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. Course examines controversial ways U.S. political system seeks to reconcile individual liberties with collective obligations of the social contract. (Crosslisted with SOCI 5336 Law and Society).

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.

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: Culture of Law Enforcement

Critical analysis of the culture of American policing as it relates to the roles, functions and family.

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 5731: Politics and Protest

Explores issues of race, religion, sex and gender in American politics and protests.

CRIM 5931: Research Topics in Criminology

Identified by a specific title each time course is offered.

CRIM 5939: Independent Study in Criminology

Approval of adviser and thesis director required.

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 Criminological Research and Statistics I; CRIM 5037 Criminological Research and Statistics II; 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. 24 hours of graduate course work and approval of internship coordinator.

CRIM 6839: Master's Project Research

Approval of adviser and project director required.

CRIM 6939: Master's Thesis Research

Approval of adviser 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 Political Economy).

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 case 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 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: 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.

CRCL 5535: Cultures of Asia

Anthropological approaches to Asian societies.

***CRCL 5537: Topics of African Studies**

Investigation of cultural diversity of African societies and African diaspora. Students will engage with methods, theories and case studies and gain skills required to conduct research on the topic. May be repeated for credit with permission of instructor (cross-listed 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 Multicultural Literature).

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 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. 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 coursework.

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 adviser and project director required.

CRCL 6939: Master's Thesis Research

Approval of adviser 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 Graphic Design or permission of instructor.

DMST 5034: Global Issues in a Digital Society

Global issues topics are explored and articulated from theoretical and/or historical approaches as they relate to digital media (film, video, art, texts, photography, commercial art) and/or social media platforms.

DMST 5036: Digital Video

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.

Prerequisite: DMST 5534 Single Camera Video Production.

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**

Students study function of, critically evaluate and create Web sites. Students create and publish client-based projects. Topics include HTML, XHTML, CSS, and JavaScript. (INST 5635 may be taken as an alternative.)

Prerequisite: Proficiency in Photoshop or equivalent experience with instructor approval.

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

Advanced techniques in Web page construction. [INST 5735 Advanced Web Design may be taken as an alternative.]

Prerequisite: DMST 5039 Web Design or equivalent experience with instructor approval.

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: Video Digital Storytelling**

Covers basic structure of narrative and various forms of digital media storytelling. Students produce videos of their own narrative using various stages of production, including storyboarding, script writing, directing, filming, editing and distribution.

Prerequisite: DMST 5534 or permission of instructor.

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 Graphic Design and COMM 4434 Web Design or equivalent experience with instructor approval.

***DMST 5534: Single Camera Video Production**

Examines technical steps to shoot and edit video. Includes filming, camera control, and editing. Students learn equipment configuration, capturing, basic editing techniques, lighting and how to convert to digital medium.

***DMST 5535: Broadcast Video Production**

Student production teams create professional-quality video productions for multimedia and web. Coursework includes advanced post-production, field lighting, audio production, with emphasis on script writing and story boarding.

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. 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.

FITNESS AND HUMAN PERFORMANCE COURSES

HLTH 5131: Applied Exercise Physiology: Neuromuscular

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

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

Study of the effect of nutrition on sports performances and personal health.

Prerequisite: HLTH 4033 Nutrition, Fitness and Weight Control or other undergraduate nutrition course.

HLTH 5231: Techniques in Human Performance

To provide an in-depth, structured, practical experience in a formalized program dealing with human performance.

HLTH 5333: Organizational Wellness

The purposes, methods and objectives of wellness programs in the public and private sector.

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. 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.

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 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

Minimum of two days a week in an approved setting. Written report required. Arrangements for internship should be completed by preregistration.

Prerequisite: 24 hours of graduate-level coursework and approval of internship coordinator.

HLTH 6839: Master's Project Research

Approval of adviser and project director.

HLTH 6939: Master's Thesis Research

Approval of adviser and thesis director.

GEOGRAPHY COURSES

GEOG 5132: Urban Political Ecology

Examination of our relationship with nature in cities with a focus on the political, economic, social and ecological processes that produce and support our varied urban environments.

GEOG 5134: Geographic Information Systems

Graduate-level introduction to concepts of Geographic Information Systems (GIS), cartography, remote sensing and Global Positioning Systems (GPS) in the context of social and environmental problems.

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

Approval of instructor and Associate Dean of HSH.

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 19th 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 the West as an 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 from 1918 to 1931 as contributions to debates about rationality, gender, violence, national identity and the human condition shaped by experiences of First World War. A cross-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 5330: Memory and Representation in Holocaust Cinema

Explores Holocaust memory and representation in American and European cinema. Students will utilize primary and secondary sources, including history, film, art and philosophy.

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. Approval of independent study director.

HIST 6839: Master's Project Research

Approval of adviser and project director required.

HIST 6909: History Comprehensive Exam

Comprehensive exam for students for students following Option 4 degree requirements.

HIST 6939: Master's Thesis Research

Approval of adviser and thesis director required.

HUMANITIES COURSES

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 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 adviser and project director required.

HUMN 6909: Humanities Comprehensive Exam

Comprehensive exam for students following Option 4 degree requirements.

HUMN 6939: Master's Thesis Research

Approval of adviser 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 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. 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, Rushdie 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. 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 and 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. May be repeated for credit when content varies.

LITR 5739: Writing Center Practicum

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. Permission of instructor required.

LITR 5831: World Literature

Seminar on selected world masterpieces, or intensive study of a particular nation's or region's literature and culture. 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. Approval of independent study director.

LITR 6739: Graduate Internship

Supervised composition internship in approved setting. Comprehensive written report required.

Prerequisites: LITR 5130 Composition: Theory and Practice, LITR 5739 Writing Center Practicum and one semester tutoring in the Writing Center.

LITR 6839: Master's Project Research

Approval of adviser and project director required.

LITR 6909: Literature Comprehensive Exam

Comprehensive exam for students following Option 4 degree requirements.

LITR 6939: Master's Thesis Research

Approval of adviser 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 5111: Orientation to School Psychology

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.

Prerequisite: Admission to School Psychology program.

PSYC 5131: Psychopathology of Childhood

Survey of psychological disorders of childhood: diagnostic categories, assessment approaches, etiology, treatment and prognosis.

Prerequisite: PSYC 5031 Human Growth and Development 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 Theories of Personality; PSYC 4531 Abnormal Psychology; 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 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 Research Design and Statistical Measurements I; PSYC 4632 Research Design and Statistical Measurement II and PSYC 5233 Introduction to Family Therapy; 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 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 Basic Psychotherapy Skills 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 Research Design and Statistics I and PSYC 6037 Research Design and Statistics II.

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 Leadership in Organizations).

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 Organizational Development).

Prerequisites: PSYC 5332 Organizational Psychology.

PSYC 5335: Life/Work Planning

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 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 5435: Conceptual Issues in Behavior Analysis

Coverage of major theories that have contributed to contemporary behavior analysis. Topics include radical behaviorism, philosophy of science and a functional analysis of language (verbal behavior).

Prerequisite: PSYC 5235 Learning Principles.

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 Adult Development).

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 Aging).

PSYC 5438: Development of Gender and Racial Identity

Examines theoretical approaches to the study of gender and racial/ethnic identity development.

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.

Prerequisite: PSYC 5332 Organizational Psychology.

PSYC 5532: Advanced Social Psychology

Theory, methodology and research findings pertinent to the individual in social context. (Crosslisted with SOCI 5532 Advanced Social Psychology).

PSYC 5533: Psychology of Gender, Race and Sexuality

Sex roles, stereotyping, socialization of women and men, feminism, female sexuality, feminist therapy androgyny, situation of minority women. "Women's 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 Minorities and Majorities).

PSYC 5535: Cross-Cultural Perspectives on the Family

Cross-cultural data are used to examine family systems including marriage, sex roles and child rearing. (Crosslisted with ANTH 5531 Families, Communities and Globalization and SOCI 5535 Cross-Cultural Perspectives in the Family).

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 Introduction to Family Therapy, PSYC 5731 Basic Psychotherapy Skills 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 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 adviser 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 6012: Social Issues Seminar

Addresses social issues research methodology and professional development issues.

Prerequisite: Enrolled in General Psychology Social Issues sub-plan.

PSYC 6031: Behavioral Assessment

Use of various behavioral assessment instruments, single subject research designs and ethics as applied to behavioral analysis.

Prerequisite: PSYC 5235 Learning Principles and PSYC 6238 Applied Behavior Analysis or equivalent and admission to the MA program or Graduate Certificate in Behavior Analysis.

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-IV, WISC-IV and WJ-III.

Prerequisites: PSYC 6036 Research Design and Statistics I, PSYC 6037 Research Design and Statistics II (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 Psychopathology or PSYC 5131 Psychopathology of Childhood 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 coursework.

PSYC 6035: Social Issues Methods and Analysis

Emphasizes qualitative and feminist methods, program evaluation, action research, researcher reflexivity, research with community partners, and strategies for connecting research to real world social issues and public policy in applied settings.

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 Research Design and Statistics I.

PSYC 6038: Clinical Practicum

Application of therapy skills with clients under supervision. Written report required.

Prerequisites: PSYC 5731 Basic Psychotherapy Skills and PSYC 6531 Psychopathology; admission to Clinical Psychology program; permission of the instructor; and twelve hours of graduate level coursework 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. Field experience required.

Prerequisites: 31 hours of School Psychology coursework which must include PSYC 6032 Intellectual Assessment and PSYC 6133 Personality Assessment of the Child 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. Report writing required.

Prerequisites: PSYC 5131 Psychopathology of Childhood and PSYC 6032 Intellectual Assessment 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 6137: Family Research

Overview of research methods with a focus on research in family process and family therapy.

Prerequisites: PSYC 5236 Family Assessment 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**

Ethics and professional standards in the practice of behavior analysis.

Prerequisite or Co-requisite: PSYC 5235 Learning Principles and admission to the Behavior Analysis program or permission from instructor.

PSYC 6228: Research Methods in Behavior Analysis

Application and design of research methodologies for behavior analysis. Topics include measurement, experimental design, data analysis, social validity and ethical considerations.

Prerequisite: PSYC 5235 Learning Principles and admission to the MA program or Graduate Certificate in Behavior Analysis or permission from instructor.

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 Psychopathology of Childhood, PSYC 6133 Personality Assessment of the Child, PSYC 6139 Intervention I: Academic and Cognitive Skills.

PSYC 6233: Advanced Family Therapy

In-depth review of family systems and family therapy paradigms.

Prerequisite: PSYC 5233 Introduction to Family Therapy and admission to Family

Therapy program or permission of instructor. Must be taken in conjunction with PSYC 5731 Basic Psychotherapy Skills or after taking PSYC 5731 Basic Psychotherapy Skills.

PSYC 6234: Systems and Symptoms

In-depth study of systems theory with emphasis on clinical implications.

Prerequisite: PSYC 6233 Advanced Family Therapy; 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 or Co-requisite: 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 Introduction to Family Therapy, PSYC 5234 Family Life Cycle 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.

PSYC 6238: Applied Behavior Analysis

The use of learning principles in applied areas such as education, business, health and human services.

Prerequisite: PSYC 5235 Learning Principles 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. Students may enroll twice for up to 6 hours of credit.

Prerequisites: PSYC 5235, PSYC 6218, PSYC 6228, PSYC 6238.

***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 6128, PSYC 6228.

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 5234, PSYC 6031, PSYC 6128, PSYC 6228, PSYC 6238.

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. 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. Permission of instructor.

PSYC 6419: Seminar in Applied Cognitive Psychology

Students learn about ethical issues associated with human factors/human computer interaction, current research in the field and special topics. All Applied Cognitive Psychology students must be enrolled in the class every long semester they are in the program.

Prerequisite: Instructor approval required.

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 6439: Practicum in Applied Cognitive Psychology

Students apply methods they have learned to practical problems in human factors/human computer interaction.

Prerequisite: Instructor approval required.

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 Introduction to Family Therapy, PSYC 5731 Basic Psychotherapy Skills and admission to a professional psychology program.

PSYC 6538: Performance Appraisal and Feedback

An overview of performance appraisal, evaluation and measurement in organizations, as well as the delivery and reception of organizational and supervisory feedback.

Prerequisite: PSYC 5331 Personnel Psychology

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 Personnel Psychology, PSYC 5332 Organizational Psychology, PSYC 6036 Research Design and Statistics I, PSYC 6037 Research Design and Statistics II and permission of instructor.

PSYC 6636: Clinical Internship

Arrangements must be completed by preregistration.

Prerequisites: PSYC 5734 Professional Practice, Law and Ethics, PSYC 5738 Family Therapy Practicum (2 semesters), PSYC 6038 Clinical Practicum or PSYC 6039 School Psychology Practicum: 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 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 Research Design and Statistics I and PSYC 6037 Research Design and Statistics II.

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 3.000 and completion of all core I/O courses.

PSYC 6736: Advanced Personality Theory

Advanced seminar on the dynamics of personality.

PSYC 6739: Graduate Internship

Internship as a capstone experience for graduate Psychology students.

Prerequisite: 24 hours of graduate level course work and approval of internship coordinator. Students seeking an internship must have completed PSYC 5135 Professional Issues in Human Services and if in Human Services internship, must have completed PSYC 5134 Interviewing and Assessment. Written report required. Arrangements for internships should be completed by the beginning of the prior semester.

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 adviser and project director required.

PSYC 6939: Master's Thesis Research

Approval of adviser and thesis director required. PSYC 6036 Research Design and Statistics I/PSYC 6037 Research Design and Statistics II 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 Advanced Juvenile Delinquency).

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 The Death Penalty).

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.

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. Permission of instructor required.

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 Advanced Criminology).

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 White-Collar Crime).

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 Minorities and Majorities).

SOCI 5334: Social Stratification

Patterns of social and economic inequality in the United States. Distribution of income and wealth, social mobility, life changes, 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 Criminal Justice and the Mass Media).

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 Law and Society).

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 Leadership in Organizations).

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 Change and Organizational Development).

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.

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 Adult Development).

SOCI 5437: Aging

Study of current and future issues relating to the elderly from both a psychological and societal perspective. (Crosslisted with PSYC 5437 Aging).

SOCI 5532: Advanced Social Psychology

Theory, methodology and research findings pertinent to the individual in social context. (Crosslisted with PSYC 5532 Advanced Social Psychology).

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.

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 5531 Families, Communities and Globalization and PSYC 5535 Cross-Cultural Perspectives on the Family).

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 5633: American Immigration Studies

Examines central concepts and major paradigms in the study of American immigration.

SOCI 5731: Politics and Protest

Explores issues of race, religion, sex and gender in American politics and protests.

SOCI 5732: Social Problems and Dystopian Film

Examines dystopian film in the context of sociological perspectives on contemporary social problems.

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. Approval of adviser 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 Social Stratification and SOCI 5537 Complex Organizations.

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 coursework and approval of Internship Committee.

SOCI 6839: Master's Project Research

Approval of adviser and project director required.

SOCI 6939: Master's Thesis Research

Approval of adviser 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 5438: Development of Gender and Racial Identity

Examines theoretical approaches to the study of gender and racial/ethnic identity development.

WMST 5533: Psychology of Gender, Race and 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.

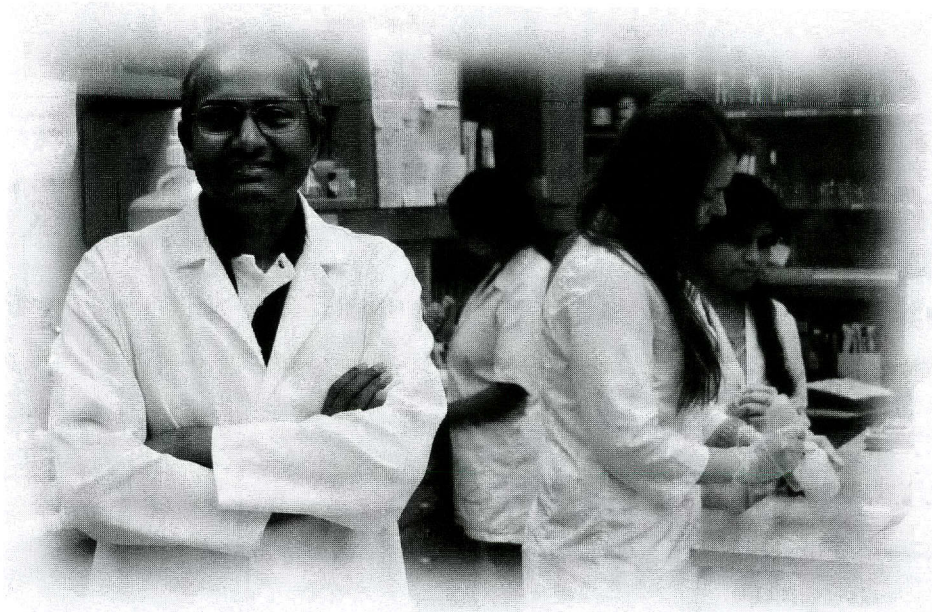
Prerequisite: Any other Women's Studies course.

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 science students can participate in a wide range of research projects, like studying the role of nitric oxide synthases-binding proteins in fertility. Bazlur Rashid, lecturer in curriculum and instruction, is leading the project.

SCHOOL OF SCIENCE AND COMPUTER ENGINEERING

- Biological Science
- 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.

SCE has three divisions:

- the Division of Computing and Mathematics
- the Division of Engineering
- 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 which are 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 Science, 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 nine 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 adviser and approved by the associate dean.

STANDARDS FOR GRADUATE DEGREES

The Graduate Record Examination (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. A minimum score of 300 (verbal + quantitative) is preferred. 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. The GRE score (verbal + quantitative) should be a minimum of 300 points, with a minimum quantitative score of 150.

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	Computer Organization and Assembly Language
CSCI 3333	Data Structures
CSCI 4230	Web Application Development
CSCI 4333	Design of Database Systems
MATH 3331	Discrete Mathematics
SWEN 4432	Software Engineering (or CENG 3331 and 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.

Computer Information Systems Core Requirements (15 hours)

The following courses, or approved substitutions are required for both the thesis option and extended course work options:

CINF 5231	Strategic Information Systems
CINF 5234	Advanced Systems Analysis and Design
CSCI 5132	Internet Protocols
CSCI 5333	Database Management Systems
CSCI 6530	Research Methods in Computer Science

Computer Information Systems Thesis Option (18 hours)

CENG/CINF/CSCI/SWEN or other approved related courses	3 hours
CINF/CSCI 4000-6000 level	3 hours
*CINF/CSCI courses, 5100-6000 level	6 hours
CINF 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 adviser).

Computer Information Systems Extended Course Work Option (21 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	3 hours	
CINF/CSCI 4000-6000	6 hours	
CINF/CSCI 5100-6000	9 hours	
CINF 6838	Research Project and Seminar (taken after completion of the required core and during last 12 hours)	3 hours

Note: All electives must be approved before enrolling.

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 adviser and set up their Candidate Plan of Study (CPS) as early as possible.

Semester 1 (9 credits)

CINF 5231	Strategic Information Systems
CSCI 5132	Internet Protocols
CSCI 5333	Database Management Systems

Semester 2 (9 credits)

CINF 5234	Advanced Systems Analysis and Design
CINF 5939	Independent Study
CSCI 6530	Research Methods in Computer Science

Semester 3 (9 credits)

CINF 6939	Master's Thesis Research
CINF/CSCI	4000-6000 level elective

Semester 4 (6 credits)

CINF/CSCI	5100-6000 level
CINF 6939	Master's Thesis Research

Computer Science

The plan in Computer Science leads to the master of science (M.S.) degree. This plan is designed to prepare students to hold key technical positions in the development of computer-based solutions to complex systems problems.

Computer Science 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 back-

ground in computer science. It is expected that the minimum Graduate Record Examination (GRE) score required for acceptance into the plan be reasonably balanced among the different components of the GRE exam. The GRE score (verbal + quantitative) should be a minimum of 300 points, with a minimum quantitative score of 150. 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	Computer Organization and Assembly Language
CSCI 3333	Data Structures
CSCI 3532	Advanced Data Structures and 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 and 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 adviser 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

Computer Science Thesis Option (21 hours)

Complete the following courses.

CSCI 6939 Master's Thesis Research 6 hours

A student must take an additional 15 hours of electives. Pending faculty advisor approval, at most 3 credit hours may be taken at the 4000-level and at most 6 credit hours may be taken from SWEN/ CENG/ SENG rubrics.

Note: All electives must be approved before enrolling.

Computer Science Extended Course Work Option (24 hours)

Complete the following courses:

CSCI 6838 Research Project and Seminar 3 hours

A student must take an additional 21 hours of electives, pending faculty adviser approval. At most, six credit hours may be taken at the 4000-level and at most, six credit hours may be taken from SWEN/ CENG/ SENG rubrics.

Note: CSCI 6838 must be taken during the last 12 hours, after completion of CSCI 5531 and CSCI 5333. All electives must be approved before enrolling.

Computer Science 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

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. The GRE score (verbal + quantitative) should be

a minimum of 300 points, with a minimum quantitative score of 150. In some cases, additional preparatory courses may be required.

Undergraduate foundation courses for Masters in Mathematics

- Ordinary Differential Equations
- Introduction to Abstract Algebra
- Advanced Calculus
- Introduction to Real Analysis

Course selections will be arranged in consultation with a faculty adviser while preparing the CPS. Students selecting the extended course work option must complete MATH 6837 (Research Project I). This is to be taken after successfully completing nine hours of required core courses or during the last 15-18 hours of graduate mathematics course work. MATH 6838 (Research Project II) will be completed following MATH 6837 (Research Project I) with faculty adviser approval prior to registration. Research Project I and II may not be taken concurrently. Students may enroll in MATH 6838 only when their project adviser determines that they have made good progress toward the completion of their project in MATH 6837. Students who change their research project topic must begin again with MATH 6837.

Mathematics Core Requirements (18 hours)

MATH 5131	Abstract Algebra
MATH 5132	Real Analysis
MATH 5136	Ordinary Differential Equations and Dynamical Systems
MATH 5137	Topology and Geometry
or	
MATH 5333	Numerical Analysis

Students will select an additional two courses from the following (courses not already satisfying the requirements above):

MATH 5133	Complex Analysis
MATH 5134	Logic
MATH 5137	Topology and Geometry
MATH 5231	Linear Algebra
MATH 5330	Mathematical Software and Modeling Simulation
MATH 5333	Numerical Analysis
MATH 5431	Mathematical Modeling in the Applied Sciences
STAT 5431	Theory & Application of Probability

Mathematics Thesis Option (18 hours)

MATH, STAT courses, 5000-6000 level	12 hours
MATH 6939 Master's Thesis Research	6 hours

Mathematics Extended Course Work Option (18 hours)

MATH, STAT courses, 5000-6000 level	6 hours
MATH Electives, 4000*-6000 level	6 hours
MATH 6837 and MATH 6838 Research Project I & II	6 hours

* With advisers approval, two of the following may count towards the Master's Degree as a 4000-level elective if taken as a graduate student at UHCL:

MATH 4431	Introduction to Analysis
MATH 4232	Introduction to Abstract Algebra

[Provided that equivalent courses have not been completed previously.]

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.

Statistics Core Requirements (21 hours)

The following courses or their approved substitutes are required:

STAT 5431	Theory and Application of Probability
STAT 5432	Theory and Applications of Statistics
STAT 5531	Multivariate Statistical Analysis
STAT 5532	Linear Models and Regression Analysis
STAT 5533	Statistical Computing
STAT 5534	Sampling Methods
STAT 5535	Experimental Designs and Analysis

Statistics 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

Statistics 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 (M.S.) 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.

Math/Stat 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 and Dynamical Systems
MATH 5231	Linear Algebra
STAT 5431	Theory and Application of Probability

STAT 5432	Theory and Applications of Statistics
STAT 5531	Multivariate Statistical Analysis
STAT 5532	Linear Models and Regression Analysis
STAT 5533	Statistical Computing

Students will select two courses from the following six courses:

MATH 5133	Complex Analysis
MATH 5134	Logic
MATH 5137	Topology and Geometry
MATH 5232	Number Theory
MATH 5333	Numerical Analysis
MATH 5431	Math Modeling in the Applied Sciences

Math/Stat Thesis Option (27 hours)

MATH/STAT courses	5000-6000 level	15 hours
MATH/STAT electives	4000-6000 level	6 hours
MATH or STAT 6939	Master's Thesis Research	6 hours

Math/Stat 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**	15 hours
MATH /STAT electives	4000-6000 level	6 hours
MATH 6837/6838 or STAT 6837/6838		6 hours

** Note: At least six of these nine 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 adviser.

Computer Engineering Basic Preparation

Candidates should have a bachelor's degree in Computer Engineering or equivalent. Students should consult an academic adviser 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	Computer Organization and Assembly Language
MATH 4131	Ordinary Differential Equations and Applications

Computer Engineering 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

Computer Engineering Elective Requirements (15 hours thesis option, 18 hours non-thesis)

The following courses or their approved substitutions are required for both the thesis and the extended course work options. Up to one non-CENG online course is accepted in the plan.

CENG courses	5100-6000 level	6 hours
CENG/CSCI/SWEN courses	5100-6000 level	6 hours
CENG/ CSCI SWEN	4000-6000 level	3 hours thesis option, 6 hours non-thesis

Computer Engineering Thesis Option (6 hours)

CENG 6939 Master's Thesis Research 6 hours

Extended Course Work Option (6 hours)

CENG 6838 Research Project and Seminar* 3 hours
CENG 6838 or 5000-6000 level 3 hours
CENG elective

*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 broad EMGT curriculum was designed to prepare students with technical backgrounds to become industry leaders. To achieve this objective, the material is targeted to equip the candidate with the knowledge and skills to better manage projects, processes, personnel, products and services by integrating interdisciplinary courses from the School of Business and the School of Science and Computer Engineering. 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 33 hours of graduate course work of which 21 hours will be core requirements and 12 hours will be electives with capstone or thesis option. The 12 hours may be either nine hours of elective courses with the Capstone Project (three hours) or six hours of elective courses with Thesis (six hours). The program may be completed either online or face-to-face. The Web site for the Engineering Management program is <http://www.uhcl.edu/Engineering Management>

Engineering Management Entrance Requirements

To enter the EMGT plan, applicants must hold a bachelor's degree in engineering, science or another field with significant work experience in science or engineering.

The graduate admission committee will ensure that applicants have the appropriate industry or managerial background.

The application materials include a resume summarizing candidate's career objectives and professional experience as well as three letters of recommendation from current or former academic advisors or work supervisors. The Graduate Record Examination (GRE) is required of all candidates applying for admission. The Graduate Management Admission Test (GMAT) may substitute for the GRE. It is recommended that candidates who apply for admission have a grade point average (GPA) of 3.0 or greater (four point grade scale) on the last 60 hours of course work.

The graduate degree in EMGT requires 33 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.

Engineering Management 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:

Calculus I

MATH 3334 Probability and Statistics for Scientists and Engineers

The admission committee may also assign further prerequisites depending upon the 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 Plan of Study (CPS) in the first semester of enrollment.

Engineering Management Core Requirements (21 hours)

The following 21 hours of core requirements must be completed for both thesis and capstone options.

EMGT 5130	New Business Development	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
EMGT 5531	Technology Planning and Management	3 hours
SENG 5230	Systems Engineering Economics	3 hours

Engineering Management Elective Requirements

The master degree candidates with capstone and thesis options must complete nine hours of electives and six hours of elective requirements, respectively from the following:

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

SWEN 5130	Requirements Engineering	3 hours
MGMT 5638	Leading Technology	3 hours
ACCT 5031	Accounting Concepts for Managers	3 hours

Engineering Management Capstone Option (21 hours of core requirements + 9 hours of electives + 3 hours of capstone)

The Capstone enrollment is limited to candidates who have completed 21 hours of the EMGT core and elective requirements and their prerequisites. Under the capstone option, the master degree candidates must complete 21 hours of core requirements and nine hours of elective requirements. Capstone course is available online.

EMGT 6837	Engineering Management Capstone Project	3 hours
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Engineering Management Thesis Option (21 hours of core requirements + 6 hours of electives + 6 hours of thesis)

Master degree candidates must complete 21 hours of core requirements and six hours of elective requirements. The thesis is counted as six hours.

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 Green Belt. 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. (neither GRE nor GMAT is 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 or GMAT, apply and be accepted to the EMGT program. To earn the certificate, each of the four UHCL courses listed below must be completed with a grade "B" or better within a four year time limit ("B-" will not be considered).

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 cov-

ered by a dedicated core course. The plan also allows for further expansion into one of three areas (sub-plans):

- Software Project Management
- Gaming
- 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 nine hours of graduate level Software Engineering classes may be applied to the SWEN degree if taken without admission into the program. No more than six hours graduate credit may be transferred to the Software Engineering degree.

Students accepted in the Software Engineering program must file a Candidate Plan of Study (CPS) with their assigned faculty adviser within the first semester of study. The CPS 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 a minimum GRE score (verbal + quantitative) of 300 points, with a minimum quantitative score of 145, and have 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 necessary 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

Software Engineering 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

Software Engineering 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
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EMGT/SENG/CENG/CSCI/SWEN *technical elective	4000-6000 level	3 hours
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SWEN *technical elective	4000-6000 level	3 hours
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SWEN *technical elective	5100-6000 level	3 hours
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*Courses taken as electives in SWEN require permission of the faculty adviser before enrolling.

Software Engineering 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
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SWEN *technical elective	5100-6000 level	3 hours
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*Courses taken as electives require permission of the faculty adviser 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 sub-plan is only available as face to face on campus classes, whereas the safety and management sub-plans may be available online.

Gaming Sub-plan

SWEN 5134	Gaming with SOA	3 hours
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SWEN 5136	Software for Robotics	3 hours
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SWEN 5137	Game Design and Development	3 hours
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SWEN 5138	Virtual Worlds, Sims and Animation Scripting	3 hours
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Software Safety Sub-plan

SENG 5330	Risk Management	3 hours
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SENG 5334	Human Factors Engineering	3 hours
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SWEN 5133	Aspect Oriented Development	3 hours
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SWEN 5431	Testing, Validation and Verification	3 hours
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Software Project Management Sub-plan

SENG 5330	Risk Management	3 hours
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SWEN 5230	Software Project Management	3 hours
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SWEN 5435	Personal Software Process	3 hours
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EMGT 5531	Technology Planning and Management	3 hours
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Web Based Electives (Distance Option)

CSCI 5333	Database Management Systems	
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SENG 5330	Risk Management	
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*SWEN 5532	Software Safety	
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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 pre-requisites.

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
- an undergraduate grade point average (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 four course set below must be completed within a four 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 (M.S.) 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 adviser. 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.

Systems Engineering 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 and Modeling	3 hours
SENG 5330	Risk Management	3 hours
SWEN 5230	Software Project Management	3 hours

Systems Engineering Elective Options

SENG 5332	Decision Analysis for Systems Engineering	3 hours
SENG 5334	Human Factors Engineering	3 hours
SENG 5532	Advanced Decision Analysis for Systems Engineering	3 hours
MGMT 5636	Management of Technology	3 hours
MGMT 5638	Leading Technology	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.

Systems Engineering Elective Hours

Thesis Option (six hours of thesis + nine hours of electives)

SENG 6939 Master's Thesis Research	6 hours
Electives in engineering, science and mathematics approved by the stu-	9 hours

dent's adviser

Systems Engineering 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 adviser	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 5230	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	Computational Statistics
	Organic Chemistry I and II
	Physics I and II

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.

The GRE score (verbal + quantitative) should be a minimum of 300 points, with a minimum quantitative score of 150. 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 biology 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 (three hours) and BIOL 6939 Master's Thesis (six hours). Students pursuing the master's thesis option are advised to consult with their faculty adviser early in their studies for guidance in preparation for beginning the thesis.

INFORMATION ON THE CERTIFICATE OPTION IN BIOTECHNOLOGY CAN BE FOUND IN THE UNDERGRADUATE CATALOG.

Biological Science Master's Degree with a Pre-Health Specialization (36 hours)

The master's 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, three hours of capstone course (BIOL 6838), and six hours of graduate electives. A thesis option is also available.

Biological Science Core Coursework (27 hours):

BIOL 4432	Biochemistry II
BIOL 5131	Membrane Biology

BIOL 5132	Cell Signaling
BIOL 5332	Toxicology and Environmental Health
BIOL 5435	Advanced Immunology
BIOL 5635	Neuroscience
BIOL 5734	Oncogenes
BIOL 5736	Bioethics
BIOL 5436	Physiological Basis of Disease

Designated electives (6 hours):

BIOL 4332	Histology
BIOL 4437	Cellular Physiology
BIOL 4438	Developmental Biology
BIOL 4531	Molecular Biology
BIOL 5432	Principles of Pharmacology
BIOL 5433	Enzymology
BIOL 5731	Advanced Cancer Biology
BIOL 5939	Independent Study in Biological Science

UHCL Pre-Health Advisory Committee Web page: <http://www.uhcl.edu/sce/HPAC>

Biological Science Master's Degree 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 adviser, and a three 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

Biological Science Master's Degree with an Ecology/Microbiology/Aquatic & Marine Biology Specialization (36 hours)

The master's degree in Biological Science with an ecology/microbiology/aquatic and marine biology focus consists of coursework that is intended to prepare the student for a career in environmental biology research, consulting, or in the govern-

ment/regulatory sector. The ecology/microbiology/aquatic and marine biology specialization includes coursework selected from the list below, in consultation with the faculty adviser and a three hour capstone course (BIOL 6838). A thesis option is also available.

Core coursework (select 33 hours)

BIOL 5235 and 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	Coastal and Estuarine Ecology
BIOL 5533	Ecological Methods
BIOL 5534	Conservation Biology
BIOL 5535	Neotropical Rainforest Ecology
BIOL 5931	Research Topics in Biology
BIOL 5939	Independent Study in Biological Science
BIOL 5x3x	Approved Elective Course
GEOL 5333	Wetlands

Biological Science Master's Degree 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 adviser and a three hour capstone course (BIOL 6838). A thesis option is also available.

Core coursework (select 33 hours)

BIOL 5131	Membrane Biology
BIOL 5132	Cell Signaling
BIOL 5433	Enzymology
BIOT 5x3x	Plant Genomic Analysis
BIOL 5533	Ecological Methods
BIOL 5534	Conservation Biology
BIOL 5632	Bioenergetics
BIOL 5732	Advances in Molecular Biology
BIOL 5931	Research Topics in Biology
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 admis-

sions 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 and 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.

Students requiring significant prerequisite or foundation coursework should anticipate an extended time commitment for earning the graduate degree. A maximum of six credit hours of the 4000-level courses listed below in the basic and concentration prerequisites may be applied toward the M.S. 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 Biochemistry 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.

In all cases for concentration requirements, evidence of completion of the course with a grade of "C" or better is required.

Biotechnology 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. Students must co-register for Discussions (BIOT 5011, BIOT 5111 and BIOT 5112) that are associated with BIOT 5021, BIOT 5121 and BIOT 5122, respectively. Although the M.S. in Biotechnology does not require independent study, co-op (internship), field experience (practicum), or thesis, these options are available and students are encouraged to participate in them.

Biotechnology Core Curriculum (27 hours)

Required courses (18 hours):

BIOT 5011	Methods of Biotechnology Discussions	1 hour
BIOT 5031	Applied Biotechnology	3 hours
BIOT 5021	Methods of Biotechnology	2 hours
BIOT 5111	Advanced Methods in Biotechnology I Discussions	1 hour
BIOT 5112	Advanced Methods in Biotechnology II Discussions	1 hour
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

Biotechnology Extended Coursework Option (9 hours):

Under the extended coursework option, a minimum of 27 hours of Biotechnology core curriculum (including six hours of approved electives from any of the three concentrations and three hours of BIOT 6838 Research Project and Seminar), plus nine hours of electives within their specific concentration area must be completed. Non-thesis students who take BIOT 5530 as an elective will still be required to take BIOT 6838.

Biotechnology Thesis Option (9 hours)

Under the thesis option, a minimum of 27 hours of Biotechnology core curriculum (including three hours of BIOT 5530 Research Methods in Biotechnology and six hours of BIOT 6939 Master's Thesis Research), plus nine hours of electives within their specific concentration area must be completed.

Note: an additional three 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)

BIOT 5231	Advanced Mammalian Tissue Culture
BIOT 5235	Bacterial Taxonomy and Biotechnology Laboratory

BIOT 5331	Stem Cell Biotechnology
BIOT 5431	Plant Genomic Analysis
BIOT 5433	Marine Biotechnology Graduate Seminar
BIOT 5535	Environmental Biotechnology
BIOT 5915	Cooperative Education Work Term
BIOT 5921	Laboratory Topics in Biotechnology
BIOT 5931	Research Topics in Biotechnology
BIOL 5131	Membrane Biology
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

Bioinformatics/Computational Biology Concentration (9-15 hours)

BIOT 5431	Genomic Analysis
BIOT 5915	Cooperative Education Work Term
BIOT 5921	Laboratory Topics in Biotechnology
BIOT 5931	Research Topics in Biotechnology
BIOL 5737	Molecular Vectors
BIOL 5833	Proteomics
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)

BIOT 5915	Cooperative Education Work Term
BIOT 5931	Research Topics in Biotechnology
BAPA 5131	The Global Environment of Business
INDH 6135	Radiation Protection
MGMT 5133	Teamwork and Leadership Skills: Theory in Practice
MGMT 5636	Management of Technology
MGMT 5638	Leading Technology
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 (M.S.) 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 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 2012. 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. The GRE score (verbal + quantitative) should be a minimum of 300 points, with a minimum quantitative score of 145. Further information on the Chemistry plan is available from the Chair of Chemistry.

Chemistry Basic Requirements

Students seeking the master of science (M.S.) degree in Chemistry must have completed, at minimum, the following courses with grades of "C-" or better:

General (Freshman) Chemistry I and II with laboratory	8 hours
Organic Chemistry I and II with laboratory	8 hours
Analytical Chemistry I and II with laboratory	8 hours
Physical Chemistry I and 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.

Chemistry 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)

and Extended Course work option courses or Thesis option courses.

*CHEM 5130 is required (prerequisite) for the Physical Chemistry courses.

Specialization Areas are 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

In addition to the MS Chemistry core requirements, students are required to take the following courses:

Astrobiochemistry I	CHEM 5633	3 hours
Astrobiochemistry II	CHEM 5634	3 hours

And choose one of the following:

Handedness in Science	CHEM 5135	3 hours
Independent Study	CHEM 5939	3 hours
Planetary Science	ASTR 5531	3 hours
Remote Sensing	GEOL 5631	3 hours
Planetary Geology	GEOL 5730	3 hours

Chemistry 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).

Chemistry 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.

Required courses for Specialization in Chemical Technology Management & Marketing

In addition to the MS Chemistry core requirements, choose additional 9-15 hours from the following courses:

Research Topics in Chemistry	CHEM 5931	3 hours
The Global Environment of Business	BAPA 5131	3 hours
Professional Project Management	EMGT 5430	3 hours
Technology Planning and Management	EMGT 5531	3 hours
Radiation Protection	INDH 6135	3 hours
Management of Technology	MGMT 5636	3 hours
Leading Technology	MGMT 5638	3 hours
International Business Management	MGMT 6332	3 hours
Executive Decisions in Marketing	MKTG 5332	3 hours
International Marketing Strategy	MKTG 5532	3 hours

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
- Safety

A growing number of courses are available online and an ENSC (M.S.) online degree option is available since spring 2012.

Environmental Science 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 six 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 I	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.

Environmental Science Thesis Option (36 hours)

STAT 5135	Applied Statistical Methods	3 hours
ENSC 5530	Research Methods: Environmental Science	3 hours
ENSC 6939	Master's Thesis: Environmental Science	6 hours

Designated electives (maximum of six hours of 4000-level credit): 24 hours

Environmental Science Research Project Course Option (36 hours)

STAT 5135	Applied Statistical Methods	3 hours
ENSC 5530	Research Methods: Environmental Science	3 hours
ENSC 6838	Research Project	3 hours
	Or ENSC 6731 Graduate Seminar	

Designated electives (maximum of six hours of 4000-level credit) 27 hours

Electives are selected in consultation with the faculty adviser 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 5530, students must have a faculty adviser 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 adviser and an approved research proposal.

Environmental Biology sub-plan designated electives or their equivalents:

Selected on consultation with adviser (minimum 15 hours)

BIOL 5233	Ecotoxicology	3 hours
BIOL 5234	Population and Community Dynamics	3 hours
BIOL 5235/ BIOL 5215	Ichthyology and Lab for Ichthyology	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	Coastal and 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	Research Topics in Biology (must be approved prior to registering)	3 hours
ENSC 5931	Research Topics in Environmental Science (must be approved prior to registering)	3 hours
ENSC 5939	Independent Study in Environmental Science	3 hours
Cross-discipline (minimum of three 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	Advanced 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	Research Topics in Geology (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 adviser.

Environmental Chemistry sub-plan designated electives or their equivalents:

Selected on consultation with adviser (minimum 15 hours)

CHEM 4521	Lab for Environmental Analysis	2 hours
CHEM 4536/GEOL 4536	Soil and 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 in Environmental Science	3 hours
Cross-discipline (minimum of three 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 adviser.

Environmental Geology sub-plan designated electives or their equivalents:

GEOL 4233	Soils in the Environment	3 hours
GEOL 4536	Soil and Groundwater Remediation	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 adviser.

Industrial Hygiene sub-plan designated electives or their equivalents:

INDH 5131	Control of Occupational Hazards	3 hours
INDH 5233	Recognition of Occupational Diseases	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 levels (if applicable): to be arranged with adviser		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 adviser.

Safety sub-plan designated electives or their equivalents:

INDH 5xxx	System Safety and Accident Investigation	3 hours
INDH 5xxx	Const. and General Industry Safety	3 hours
INDH 5131	Control of Occupational Hazards	3 hours
INDH 5334	Human Factors Engineering	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, or 6000 levels (if applicable): to be arranged with adviser		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 adviser.

Environmental Science (MS) Online Option

Environmental Science Online Research Project Course Option (36 hours)

STAT 5135	Applied Statistical Methods	3 hours
ENSC 5530	Research Methods: Environmental Science	3 hours
ENSC 6838	Research Project	3 hours
	Or ENSC 6731 Graduate Seminar	

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 adviser 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 adviser'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.

Environmental Science Online Course Elective

Electives are selected in consultation with the faculty adviser 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 course may be included.

BIOL 5332	Toxicology and Environmental Health
BIOL 5931	Research Topics in Biology
CHEM 5431	Contaminant Fate and Transport
CHEM 5535	Sampling & Analysis of Environmental Contaminants
CHEM 5931	Research Topics in Chemistry
ENSC 5333	Fundamentals of Environmental Engineering
ENVR 5332	Environmental Law
ENVR 6133	Environmental Risk Management
GEOL 5531	Hydrology of Groundwater
GEOL 5532	Hydrology of Surface water
GEOL 5x3x	Soil and Groundwater Remediation
GEOL 5631	Remote Sensing
GEOL 5931	Research Topics in Geology
INDH 5131	Control of Occupational and Environmental Hazards
INDH 5333	Air Pollution
INDH 5334	Human Factors Engineering
INDH 5x3x	Safety, Health and Environmental Issues
INDH 5931	Research Topics in Industrial Hygiene and Safety
INDH 6135	Radiation Protection

PHYSICS

The graduate plan in Physics leads to the master of science (M.S.) 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.

Physics Basic Preparation

Applicants for candidacy should have a bachelor of science (B.S.) 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 adviser. 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 and II with Laboratory	8 hours
Modern Physics	3 hours
Calculus I and II	8 hours
Calculus III	3 hours
Differential Equations	3 hours
Complex Variables	3 hours
Linear Algebra	3 hours
Probability and Statistics	3 hours
Intermediate Electromagnetism	3 hours
Quantum Mechanics	3 hours
Thermodynamics and Statistical Mechanics	3 hours

Physics Core Requirements

The following 24 hours of graduate physics courses are required for both the thesis and extended course work options.

PHYS 5331, PHYS 5311	Electrodynamics and Recitation	4 hours
PHYS 5431, PHYS 5411	Classical Mechanics and Recitation	4 hours
PHYS 5531, PHYS 5511	Mathematical Methods and Recitation	4 hours
PHYS 5631, PHYS 5611	Quantum Mechanics I and Recitation	4 hours
PHYS 5632, PHYS 5612	Quantum Mechanics II and Recitation	4 hours
	(Not required for students completing the sub-plan in technical management)	
PHYS 5731, PHYS 5711	Statistical Mechanics and Recitation	4 hours

Physics Advanced Electives

Advanced SCE courses that meet the needs of students' professional goals may be selected in consultation with a faculty adviser.

Physics 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 six 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.

Physics 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 adviser and complete three credit hours of Independent Study Research (PHYS 5739 or PHYS 5939) and three hours in the Research Project and Seminar Course (PHYS 6838). Students completing the sub-plan in Technical Management should take either PHYS 5739 or PHYS 6838.

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 students in this sub-plan are not required to take PHYS 5632/PHYS 5612.

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 and Leadership Skills: Theory in Practice	3 hours
MGMT 5638	Leading Technology	3 hours

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 5334: Microbial Ecology**

A study of the interactions of microorganisms and their environments, including biotic and abiotic components. Topics including metabolic diversity, biogeochemistry, microbial community ecology, microbial diversity, modern methodology are discussed with current research articles.

Prerequisites: BIOL 3231 or equivalent.

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: Coastal and 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 biological factors that shape species diversity of the earth's ecosystems and the environmental and sociopolitical issues faced in the conservation of biodiversity.

Prerequisite: BIOL 4131 or equivalent.

BIOL 5535: Neotropical 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 5537: Limnology and Aquatic Biology**

The study of physical, chemical and biological nature of freshwater systems including lakes, ponds, rivers and streams. Includes one or more weekend or weekday field trips and lab experiments.

Prerequisite: BIOL 4131 or equivalent.

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-wide 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 adviser, master's committee and dean.

BIOTECHNOLOGY COURSES

*Pending Coordinating Board approval

BIOT 5011: Methods of Biotechnology Discussions

Web-based lectures for Methods of Biotechnology Laboratory, discussion of laboratory protocols and techniques.

Corequisite: BIOT 5021

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

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 5111: Advanced Methods of Biotechnology I Discussions

Web-based lectures for Methods of Biotechnology Laboratory, discussion of laboratory protocols and techniques.

Corequisite: BIOT 5121.

BIOT 5112: Advanced Methods of Biotechnology II Discussions

Web-based lectures for Methods of Biotechnology Laboratory, discussion of laboratory protocols and techniques.

Corequisite: BIOT 5122.

BIOT 5121: Advanced Methods of Biotechnology I

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 5231: Advanced Mammalian Tissue Culture

Advanced training in the Culture of Mammalian cells. Students will perform laboratories in co-immunoprecipitation assays, western blots, mammalian two-hybrid assays, etc.

Prerequisite: BIOL 4535 or Mammalian Tissue Culture experience.

BIOT 5235: Bacterial Taxonomy and Biotechnology Laboratory

This is an advanced laboratory intensive course that will emphasize methods on the isolation of quality bacterial DNA, PCR amplification, cloning and transformation, restriction fragment length polymorphism (RFLP) analysis, degenerate gradient gel electrophoresis (DGGE), big dye sequencing and bioinformatics data analysis. Graduate level data reporting, analysis and laboratory reports will be required.

Prerequisites: BIOT 5111 and BIOT 5112.

BIOT 5331: Stem Cell Biotechnology

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 Genomic Analysis

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 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.

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 5921: Laboratory Topics in Biotechnology

Identified by specific title each time laboratory is offered.

BIOT 5931: Research Topics in Biotechnology

Identified by specific title each time course is offered

BIOT 6011,6021,6031: Biotechnology Practicum

Practical experience at an off-campus facility such as biotechnology company or research lab. Requires pre-acceptance interview and offer letter from employer, minimum of 10,20 or 30 hours per week and instructor approval.

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 adviser, 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 5536: Environmental Remediation**

Soil and groundwater pollutant sources, types, migration; chemical and hydrogeological site characterization; chemical/biological/thermal technologies (pump-and-treat, vapor extraction, bioremediation and incineration) for the remediation of contaminated sites such as Superfund sites, landfills, brownfields, leaking storage tanks and oil spills.

Prerequisite: CHEM 3333 or equivalent.

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: Astrobiochemistry 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: Astrobiochemistry 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 adviser, master's committee and dean.

COMPUTER ENGINEERING COURSES

*Pending Coordinating Board approval

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 5332: Wireless Communications & Networks**

Wireless digital communication/network fundamentals, design approaches, system architectures, applications, performance assessment and security for radio frequency communication technologies.

Prerequisites: CENG 4131 or equivalent.

CENG 5333: Network Performance Analysis

Queueing 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 and Seminar

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 adviser, 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 Systems Analysis 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, division 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 adviser, master's committee and Dean.

COMPUTER SCIENCE COURSES

*Pending Coordinating Board approval

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 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 3134 and CSCI 3333

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 5333: Database Management Systems

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 5737: Mobile Applications Development**

Mobile application design and development principles-application scoping, usage patterns, reliability requirements, mobile user interface design, accessing hardware features such as camera and GPS and performance tuning. Hands-on laboratory instruction provided using one of the popular mobile platforms- iOS, Android or Windows Phone 7.

Prerequisite: The course assumes knowledge of an object-oriented programming language such as C++, Java, C#, etc.

CSCI 5832: Financial Data Mining

Examination of the process of data mining financial data in order to identify potentially successful approaches. Explores different sources of data (e.g. derivatives, stocks) and how to effectively apply various machine learners.

Prerequisites: At least one high level programming language or instructor's approval.

CSCI 5833: Data Mining: Tools and Techniques

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 5333 recommended.

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 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 adviser, master's committee and Dean.

ENGINEERING MANAGEMENT COURSES

*Pending Coordinating Board approval

EMGT 5130: New Business Development

The course concentrates on business proposal writing and business feasibility analysis for technology ventures.

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.

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 5431: Contract Management**

This course provides overall knowledge on the processes and techniques through which goods and services are acquired in the project management environment.

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: Foundation courses.

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

This is a project based course to summarize EMGT learning. The course consists of several projects from diverse EMGT areas and students need to complete group projects utilizing EMGT knowledge and skills.

Prerequisites: At least 21 hours of graduate work in EMGT.

EMGT 6838: Engineering Management Research Project

This is a project based course to summarize EMGT learning. The course consists of several projects from diverse EMGT areas and students need to complete group projects utilizing EMGT knowledge and skills.

Prerequisites: 21 hours of graduate work in EMGT.

EMGT 6939: Master's Thesis Research

Prerequisites: Approval of faculty adviser, thesis committee and dean.

ENVIRONMENTAL SCIENCE COURSES

*Pending Coordinating Board approval

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 5135: Statistics for Environmental Science**

Basic and intermediate concepts and applied statistical analyses using R, including experimental design, parametric and non-parametric statistical analyses (t test, ANOVA, regression, correlation, multivariate statistics and others) and results interpretation.

Prerequisite: Math 3038 or equivalent.

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 adviser, 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: Advanced 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, GEOL 4222, GEOL 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 adviser, 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, Cauchy'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 adviser, 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.

Corequisite: PHYS 5311.

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.

Corequisite: PHYS 5411.

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 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.

Corequisite: PHYS 5511.

PHYS 5532: Mathematical Methods II

This course is a continuation of Mathematical Methods I. Course content may include: advanced 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 and engineering.

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.

Corequisite: PHYS 5611.

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

Principles of statistical mechanics and their applications to various physical systems, fundamental principles of thermodynamics and statistical mechanics, including probability theory, kinetic theory, entropy, classical statistical mechanics, ensembles, quantum statistical mechanics, ideal Bose and Fermi systems and phase transitions.

Prerequisites: PHYS 5531, CHEM 5130 or instructor approval and PHYS 4531 or equivalent.

Corequisite: PHYS 5711.

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 adviser 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 adviser, master's committee and dean.

SOFTWARE ENGINEERING COURSES

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 for 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

Theory, application and techniques of measurement and analysis. Process and product metrics.

Prerequisite: SWEN 4432. MATH 3334 recommended.

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 adviser, master's committee and dean.

STATISTICS COURSES

STAT 5135: Applied Statistical Methods

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. Not available for graduate credit for statistics majors.

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 adviser, master's committee and dean.

SYSTEMS ENGINEERING COURSES

SENG 5130: Systems Engineering Processes

Detailed coverage of the systems engineering process and system engineering tools that facilitate implementation of the process. Covers the complete systems life cycle from needs assessment and feasibility analysis through requirements, design and testing to system retirement and disposal. The student will gain an in-depth understanding of the International Council on Systems Engineering Capability Maturity Model including assessments and process improvement. The student will also gain proficiency in the use of commercial system engineering tools that facilitate the implementation and management of the systems engineering process.

Prerequisites: Foundation courses.

SENG 5230: Systems Engineering Economics

Engineering and economic fundamentals, issues and goals of SENG. Life and project cycles of systems, super-systems and subsystems. Trade-off studies involving cost-effectiveness analysis; multiple-goal decision analysis; and dealing with uncertainties, risk and the value of information.

SENG 5231: Concurrent Engineering

Determining needs and organizing teams from the multiple disciplines required for integrated system and product development. Technical and management issues and methods of involving end users, suppliers, service providers and engineering specialists to work with the SENG team on concurrent activities throughout the system's life cycle.

SENG 5232: Engineering Specialty Integration

Coordination of engineering specialties across multiple disciplines in reliability, quality assurance, maintainability, integrated logistics support, verification, predictability, social acceptability, automated support environments, etc.

SENG 5233: Systems Engineering Analysis and Modeling

This course presents the fundamentals of systems analysis and modeling. The emphasis is on solving practical modeling problems for continuous, discrete and hybrid systems, both linear and nonlinear. Systems will be modeled using modern tools such as MATLAB and Simulink.

Prerequisites: SENG 5231 and SENG 5232 or permission of instructor & adviser.

SENG 5330: Risk Management

Continuous Risk Management is a system engineering practice with processes, methods and tools for managing risks in a project. It provides a disciplined environment for proactive decision making to assess continuously what could go wrong (risks), determine which risks are important to deal with and implement strategies to deal with those risks. The purpose of this course is to explain what Continuous Risk Management is; to help the student understand the principles, functions, methods and tools; to show what it could look like when implemented within a project; and to show how a project could implement its own adaptation.

Prerequisites: Foundation courses.

SENG 5332: Decision Analysis for Systems Engineering

Understanding the theory and learning how to apply, formulate, solve and interpret system engineering problems using decision analysis and operations research techniques. Theory and techniques include decision analysis, linear programming, simplex method, sensitivity analysis, network modeling, integer linear programming and goal programming.

Prerequisites: Foundation courses.

SENG 5334: Human Factors Engineering

This course presents the consideration of whether people serve as operators, maintainers or users in the system. The course advocates systematic use of such knowledge to achieve compatibility in the design of interactive systems of people, machines and environments to ensure their effectiveness, safety and ease of performance.

Prerequisite: Foundation courses.

SENG 5532: Advanced Decision Analysis for Systems Engineering

Builds upon the fundamentals of Decision Analysis for Systems Engineering, with topics in non-linear methods for decision making, numerical techniques, regression analysis and discriminant analysis.

Prerequisite: SENG 5332.

SENG 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.

SENG 5931: Research Topics in Systems Engineering

Identified by specific title each time course is offered.

SENG 5939: Independent Study in Systems Engineering

Prerequisites: Approval of instructor, chair and associate dean.

SENG 6837: Systems Engineering Capstone Project

Teams will meet on a weekly basis with their faculty mentor to discuss progress.

Prerequisites: Completion of at least 18 hours of the core curriculum including systems engineering project.

SENG 6939, 6969: Master's Thesis Research

Prerequisites: Approval of faculty adviser, master's committee and dean.



UHCL's campus is full of great spaces. The Patio Café, located in the Bayou Building, features indoor and outdoor dining areas.

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INDEX

A

A Metropolitan University • 7
Academic Advising • 29
Academic Appeals • 82
Academic Honesty Policy • 82
Academic Probation • 80
Academic Record Changes • 58
Academic Record Services • 58
Academic Standards • 79
Academic Suspension • 80
Acceptance into a Degree Program • 19
Accountability and Accreditation • 130
Accounting Courses • 112
Accounting Plan Requirements • 101
Accounting Sub-plan in Management Information Systems • 103
Accreditations • 9
Accredited Institutions • 17
Additional Master's Degrees • 88
Administration • 327
Administration and Supervision Courses • 189
Administrative Withdrawals • 76
Admission into a Degree Plan • 268
Admission into an HSH degree program • 209
Admission Policies and Procedures • 17
Admission Procedures • 20
Admission Requirements • 20, 135, 167
Admission Status Descriptions • 15
Admission to Pre-Service Internships I and II For Graduate Students • 153
Admission to The Teacher Education Program (TEP) for Post-Degree Teacher Certification Students • 155
Admissions Communications • 19
Admissions Requirements • 26, 178
Advising Offices/Information • 31
Alfred R. Neumann Library • 10

All Other New Graduate Students • 24
Alternative Certification Program (ACP) • 134
American Studies Sub-Plan • 224, 228
Anthropology Courses • 244
Appeal Process for Denial Based on Unsatisfactory Progress • 36
Appeals • 87
Appeals of Academic Program or Degree Requirements • 82
Applicants with Pending Bachelor Degrees • 21
Application Deadlines • 25
Application Fees • 16
Applied Behavior Analysis Certificate • 212
Applied Cognitive Psychology Sub-Plan • 239
Applied Graphic Design Sub-Plan • 224
Applying for Certification • 138
Applying for Financial Aid • 34
Applying for Graduation • 90
Art History Sub-Plan • 224
Arts Courses • 244
Astronomy and Space Science Courses (see also Physics) • 301
Auditing Courses • 45
Automatic Enrollment-Master's Option Course Work • 44
Availability of Courses • 43
Awarding of Aid • 34

B

Basic Preparation • 284
Basic Prerequisite Requirements • 289
Behavior Analysis (Master of Arts) • 211
Behavioral Sciences - General (Master of Arts) • 212
Bilingual Supplemental Certificate (15 Hours) • 157

- Bioinformatics/Computational Biology Concentration (9-15 hours) • 291
 - Biological Science Core Coursework (27 hours): • 286
 - Biological Science Master's Degree with a Cell/Molecular Specialization (36 hours) • 287
 - Biological Science Master's Degree with a Plant Biology Specialization (36 hours) • 288
 - Biological Science Master's Degree with a Pre-Health Specialization (36 hours) • 286
 - Biological Science Master's Degree with an Ecology/Microbiology/Aquatic & Marine Biology Specialization (36 hours) • 287
 - Biological Sciences • 285
 - Biology Courses • 301
 - Biotechnology • 288
 - Biotechnology Core Curriculum (27 hours) • 290
 - Biotechnology Core Requirements for the M.S. Degree • 290
 - Biotechnology Courses • 304
 - Biotechnology Extended Coursework Option (9 hours): • 290
 - Biotechnology Management and Marketing Concentration (9-15 hours) • 291
 - Biotechnology Thesis Option (9 hours) • 290
 - Board of Regents • 327
 - BUS Computer Support Fee • 50
 - Business Administration (MBA) Plan Requirements • 103
 - Business and Public Administration Courses • 114
- C**
- Cancellation of Registration • 44
 - Career and Counseling Services • 64
 - Career Services • 64
 - Census Date • 44
 - Center for Educational Programs (CEP) • 133
 - Center for Professional Development of Teachers (CPDT) • 132
 - Centers and Offices • 132
 - Certificate - Software Engineering (4 courses) • 283
 - Certificate Programs • 22
 - Certification • 134
 - Changing Careers or Enrollment Status • 20
 - Check-In • 29
 - Chemistry • 291
 - Chemistry Basic Requirements • 292
 - Chemistry Core Requirements • 292
 - Chemistry Courses • 306
 - Chemistry Extended Course Work Option • 293
 - Chemistry Thesis Option • 293
 - Class Attendance • 76
 - Class Enrollment • 44
 - Clinical Psychology • 214
 - Clinical Psychology (Master of Arts) • 232
 - Co-Enrollment (International Students) • 28
 - Collaborative UHCL/UH Physics Ph.D. Program • 299
 - College Work Study • 38
 - Communication Courses • 245
 - Community College Advisory Council to the University of Houston-Clear Lake • 327
 - Composition and Rhetoric Sub-Plan • 228
 - Computer Engineering • 276
 - Computer Engineering Basic Preparation • 277
 - Computer Engineering Core Requirements (12 hours) • 277
 - Computer Engineering Courses • 308

- Computer Engineering Elective Requirements (15 hours thesis option, 18 hours non-thesis) • 277
 - Computer Engineering Thesis Option (6 hours) • 278
 - Computer Information Systems • 269
 - Computer Information Systems Basic Preparation • 270
 - Computer Information Systems Core Requirements (15 hours) • 270
 - Computer Information Systems Courses • 310
 - Computer Information Systems Extended Course Work Option (21 hours) • 270
 - Computer Information Systems Thesis Option (18 hours) • 270
 - Computer Science • 271
 - Computer Science Basic Preparation • 271
 - Computer Science Courses • 311
 - Computer Science Extended Course Work Option (24 hours) • 273
 - Computer Science Sub-plans • 273
 - Computer Science Thesis Option (21 hours) • 273
 - Computing and Telecommunications • 11
 - Computing Fee • 48
 - Concentration Areas and Electives in the Biotechnology Program • 290
 - Content Courses Waived for Post-Degree Teacher Certificates • 156
 - Counseling and Testing Services • 64
 - Counseling Courses • 190
 - Course Delivery Formats • 93
 - Course Load • 75
 - Credit earned before acceptance. • 281
 - Criminal Background Checks • 132
 - Criminology (Master of Arts) • 214
 - Criminology Courses • 245
 - Criteria for Satisfactory Academic Progress • 36, 39
 - Cross-Cultural Studies (Master of Arts) • 215
 - Cross-Cultural Studies Courses • 246
- D**
- DE Admission Requirements • 94
 - Dean of Students • 65
 - Decision Sciences Courses • 114
 - Definitions and Regulations • 46
 - Degrees Offered • 73
 - Degree-Seeking Versus Non-Degree-Seeking Status • 43
 - Department of Education Accountability • 130
 - Descriptions of Letter Grades • 77
 - Designated Differential Tuition • 49
 - Designated electives (6 hours): • 287
 - Digital Media Studies (Master of Arts) • 217
 - Digital Media Studies Courses • 248
 - Directions • 3
 - Directory • 2
 - Disability Services • 66
 - Disbursement of Funds • 35
 - Distance and Off-Campus Education • 93
 - Division of Computing and Mathematics • 269
 - Division of Engineering • 276
 - Division of Natural Sciences • 285
 - Doctor of Education in Educational Leadership • 186
 - Doctoral Degree Plan • 186
 - Documentation for Admission from International Institutions • 18
 - Documentation for Admission from U.S. Institutions • 17
 - Drop/Withdrawal Time Frame • 76
 - Dropping From a Class but Retaining Half-Time Status • 38
 - Dual Doctor of Chiropractic/MS Program Requirements: • 220

Dual Graduate Degree Policy • 89
Dual Master Degrees of Mathematics and
Statistics • 275
Dual Master of Science Degrees • 185

E

Early Childhood Education Courses •
192
Economics Courses • 115
Education Courses • 193
Educational Leadership Courses • 194
Email • 19
E-mail as Official Communication • 35
Encumbrance Holds or Service Indicators
• 18
Engineering Management • 278
Engineering Management Capstone
Option (21 hours of core requirements
+ 9 hours of electives + 3 hours of
capstone) • 280
Engineering Management Core
Requirements (21 hours) • 279
Engineering Management Courses • 313
Engineering Management Elective
Requirements • 279
Engineering Management Entrance
Requirements • 278
Engineering Management Foundation
Courses Required for Entrance • 279
Engineering Management Thesis Option
(21 hours of core requirements + 6
hours of electives + 6 hours of thesis) •
280
English Proficiency Requirements for
Students Educated Outside of the
United States • 27
Enrollment and Grading Policies • 75
Enrollment Status • 39
Entrance Requirements • 281
Environmental Biology sub-plan
designated electives or their
equivalents: • 295

Environmental Chemistry sub-plan
designated electives or their
equivalents: • 295
Environmental Geology sub-plan
designated electives or their
equivalents: • 296
Environmental Management • 109
Environmental Management Certificate
Program Requirements • 109
Environmental Management Courses •
115
Environmental Science • 293
Environmental Science (MS) Online
Option • 297
Environmental Science Basic
Requirements • 294
Environmental Science Courses • 315
Environmental Science Online Course
Elective • 297
Environmental Science Online Research
Project Course Option (36 hours) •
297
Environmental Science Research Project
Course Option (36 hours) • 294
Environmental Science Thesis Option
(36 hours) • 294
E-Services Fee • 49
ESL Supplemental Certificate (15 Hours)
• 157
Examination Exceptions • 24
Examinations for Graduate Candidacies •
24
Exit Interview • 38
Extended Access and Support Fee • 49
Extended Course Work Option • 269
Extended Course Work Option (6 hours)
• 278

F

Faculty Emeriti • 349
Family Therapy • 218
Family Therapy (Master of Arts) • 233

Fee Schedule Codes • 54
Fee Waiver for Senior Citizens to Audit Courses • 45
Fees • 48
Field Experience Courses • 131
Finance Courses • 116
Finance Plan Requirements • 105
Financial Aid • 33
Financial Aid and scholarships • 94
Financial Aid Policy for Students withdrawing from the University • 37
Financial Aid Programs • 33
Fitness and Human Performance (Master of Science) • 219
Fitness and Human Performance Certificate • 219
Fitness and Human Performance Courses • 250
Fitness Center • 69
Former UHCL Students • 19
Foundation Courses Required for Entrance • 281
Foundation Requirements • 100
Full-Time/Part-Time Status Course Load • 75

G

Gaming Sub-plan • 282
General Certification Information • 137
General Degree Requirements • 99, 108
General Information • 15, 93
General Program Requirements • 73
General Requirements for Graduate Studies in Education • 163
General Residency Requirements • 47
Geography Courses • 251
Geology Courses • 315
Gifted and Talented Supplemental Certificate (9-12 Hours) • 158
Governance • 9
Grade Appeals • 82
Grade Changes • 79

Grade Discrepancies • 59
Grade Point Average (GPA) • 77
Grade Reports • 59
Grading System • 77
Graduate Academic Status • 80
Graduate Admissions Requirements • 163
Graduate Application Deadlines • 23
Graduate Catalog 2011-2012 • 1
Graduate Computing Degrees • 269
Graduate Courses • 82
Graduate Degree Candidacy • 269, 276
Graduate Degree Options • 268
Graduate Majors Offered • 73
Graduate Plans • 163
Graduate Programs Research Capability Fee (BUS) • 49
Graduate Requirements for All Business Degrees • 99
Graduate Standing • 81
Graduate Teacher Certification Plan 4-8 English Language Arts and Reading • 141
Graduate Teacher Certification Plan 4-8 English Language Arts, Reading and Social Studies • 143
Graduate Teacher Certification Plan 4-8 Generalist • 144
Graduate Teacher Certification Plan 4-8 Mathematics • 145
Graduate Teacher Certification Plan 4-8 Science • 146
Graduate Teacher Certification Plan 4-8 Social Studies • 147
Graduate Teacher Certification Plan 8-12 English Language Arts and Reading • 148
Graduate Teacher Certification Plan 8-12 History • 149
Graduate Teacher Certification Plan 8-12 Life Sciences • 150
Graduate Teacher Certification Plan 8-12 Mathematics • 151

Graduate Teacher Certification Plan 8-12
Social Studies • 152
Graduate Teacher Certification Plan EC-
6 Bilingual Generalist • 140
Graduate Teacher Certification Plan EC-
6 ESL Generalist • 141
Graduate Teacher Certification Plan EC-
6 Generalist • 139
Graduate Teacher Certification Plans •
138
Graduate Transfer Credit Information •
22
Graduate Transient Status • 22
Graduation under a Particular Catalog •
89

H

Hazlewood Act • 40
Hazlewood Exemption Deadline • 41
Health and Disability Services • 66
Health Insurance • 28
Health Services • 66
Healthcare Administration • 110
Healthcare Administration and
Environmental Management • 108
Healthcare Administration Courses • 117
Healthcare Administration/Business
Administration • 110
History (Master of Arts) • 221
History Courses • 251
Honor Societies • 70
Human Factors/Ergonomics Certificate •
240
Human Resource Management Courses •
119
Human Resource Management Plan
Requirements • 106
Humanities (Master of Arts) • 222
Humanities Courses • 253

I

ID Card • 48

In Progress Grade • 78
Incomplete Grade and Incomplete Grade
Contract • 78
Industrial Hygiene and Safety Courses •
316
Industrial Hygiene sub-plan designated
electives or their equivalents: • 296
Industrial/Organizational Psychology •
225
Information Systems Administration and
Management Courses • 120
Instructional Technology Courses • 198
Intercultural and International Student
Services • 66
International Admissions • 25
International Conditional Admission • 27
International Education Fee • 50
Internship Option • 269

L

Late Registration • 43
Learning Resources Review Center • 134
Legal Studies Courses • 123
Library Use Fee • 48
Licensed Professional Counselor
Preparation (For Candidates Already
Holding a Master's Degree in a
Counseling Related Field) • 168
Limitation on Courses in the School of
Business for Graduate Students • 88
Literacy, Language and Library Science
Courses • 200
Literature (Master of Arts) • 226
Literature Courses • 254
Looking Back
Establishment of UHCL • 8

M

Management Courses • 123
Management Information Systems (MIS)
Certificate Program Requirements •
107

Management Information Systems (MIS)
 Plan Requirements • 106
 Marketing Courses • 125
 Master Mathematics Teacher Certificate
 (19 Hours) • 159
 Master of Science in Counseling • 167
 Master of Science in Counseling With
 Licensed Professional Counselor
 Preparation • 169
 Master of Science in Counseling With
 School Counselor Certification • 170
 Master of Science in Curriculum and
 Instruction • 171
 Master of Science in Early Childhood
 Education • 172
 Master of Science in Educational
 Management • 176
 Master of Science in Educational
 Management With Principal
 Certification • 174
 Master of Science in Instructional Design
 and Technology • 179
 Master of Science in Multicultural
 Studies in Education • 180
 Master of Science in Reading • 181
 Master of Science in Reading With
 Reading Specialist Standard EC- 12
 Certificate • 182
 Master of Science in School Library and
 Information Science With School
 Librarian Standard Certificate (EC-12)
 • 184
 Master Reading Teacher Certificate for
 Reading Specialists (1 Hour) • 160
 Master Reading Teacher Certificate for
 Teachers (13 Hours) • 160
 Master Teacher Plans • 159
 Master Technology Teacher Certificate
 (2-17 Hours) • 160
 Master's Degree Options • 86
 Master's Degree Plans • 167
 Math/Stat Core Requirements (33 hours)
 • 275

Math/Stat Extended Course Work
 Option (27 hours) • 276
 Math/Stat Thesis Option (27 hours) •
 276
 Mathematical Science • 273
 Mathematical Science and Statistics
 Degrees • 273
 Mathematics Core Requirements (18
 hours) • 274
 Mathematics Courses • 317
 Mathematics Extended Course Work
 Option (18 hours) • 274
 Mathematics Thesis Option (18 hours) •
 274
 MBA Sub-plans • 103
 Missed Examinations and Assignments •
 81
 Molecular Biotechnology Concentration
 (9-15 hours) • 290

N

NCATE Accreditation • 131
 Neumann Library Professional staff • 352
 New Student Admissions • 15
 No Child Left Behind (NCLB) Highly
 Qualified Teacher Requirements • 152
 Non-Degree-Seeking Applicants • 21
 Non-Degree-Seeking Status • 26
 Non-Simultaneous UHCL Master's
 Degrees • 89
 Notification of Admission • 19

O

Off-Campus Programs by Locations • 96
 Office of Academic Advising • 133
 Office of Educator Certification • 133
 Office of State Assessments • 134
 Office of the Associate Vice President •
 63
 Online Programs and Certificates • 95
 Option 1
 Master's Thesis • 86

- Option 2
 - Master's Project • 87
- Option 3
 - Master's Residency or Internship • 87
- Option 4
 - Extended Course Work • 87
- Orientation • 67, 69
- Orientation Fee • 48
- Other Certificates • 161
- Overview • 7

P

- Parking Fee • 48
- Payment Plans Available for payment of Tuition and Fees • 51
- Personal Information Changes • 58
- Philosophy Courses • 255
- Physics • 298
- Physics Advanced Electives • 298
- Physics Basic Preparation • 298
- Physics Candidacy Certificate • 300
- Physics Core Requirements • 298
- Physics Courses • 319
- Physics Non-Thesis Option • 299
- Physics Thesis Option • 299
- Plan Degree Requirements • 101
- Plan Grade Requirements • 101, 108
- Plans in Human Sciences • 210
- Plans in Humanities and Fine Arts • 211
- Policy on Professional Dispositions • 131
- Policy on Release of Student Records • 59
- Post-Degree Teacher Certification Plans • 138
- Preamble and Code • 82
- Pre-Foundation Requirements • 100
- Pre-Service Internship I (TCED 4738) • 154
- Pre-Service Internship II (TCED 4798 or TCED 4668) • 155
- Principal Standard EC- 12 Certificate for Students Holding a Master's Degree • 177

- probation • 19, 36, 39, 75, 78, 79, 80
- Probationary Principal Certification • 178
- Procedure to Apply for an English Proficiency Waiver • 27
- Professional Development Laboratory School (PDLs) • 133
- Professional Psychology Plans • 229
- Professional Writing Certificate • 225
- Professional Writing Sub-Plan • 225, 228
- Project Management and Six Sigma Certificate • 280
- Psychology (Master of Arts) • 237
- Psychology Courses • 255
- Public and Private Management Courses • 126
- Publication and Transcript Fee • 49

Q

- Qualified Alternative Certification Program (ACP) Students • 136
- Qualifying for Financial Aid Programs • 33

R

- Reaching Out
 - Creation of UHCL Pearland Campus • 8
- Reading Specialist Standard EC- 12 Certificate for Students Holding a Master's Degree • 183
- Readmission or Status Change Process • 19
- Rebates or Exemptions from Tuition and Fees • 52
- Records • 85
- Records Retention and Release • 18
- Refund Distribution Priority • 38
- Refund Policies • 56
- Refunds on Dropped Courses • 57
- Refunds on Withdrawals • 56
- Registration • 43, 94

Registration and Records Services • 43
 Registration Discrepancies • 44
 Reinstatement • 80
 Repeated Courses • 79
 Repeated Transfer Courses • 18
 Requesting and Repeating
 Comprehensive Examination • 88
 Required courses for Specialization in
 Astrobiochemistry • 293
 Required courses for Specialization in
 Chemical Technology Management &
 Marketing • 293
 Requirements and Standards for Plans in
 Computing, Mathematical Science and
 Statistics • 269
 Requirements and Standards for Plans in
 Engineering • 276
 Research Center for Language and
 Culture • 134
 Research Project Course Option • 269
 Resident Credit • 75
 Restricted Courses • 168

S

Safety sub-plan designated electives or
 their equivalents: • 296
 Satisfactory Academic Progress for VA
 Benefits • 39
 SBEC/TEA Accreditation • 131
 Schedule of Charges and Special Fees •
 52
 Schedule of Classes • 94
 Scholarships • 39
 School Counselor Certification for
 Students Holding a Master's Degree •
 169
 School Librarian Standard Certificate
 (EC-12) for Students Holding a
 Master's Degree • 184
 School of Business • 73, 99
 School of Business Courses • 112
 School of Education • 23, 73, 129
 School of Education Courses • 189
 School of Education Doctoral Program •
 50
 School of Human Sciences and
 Humanities • 23, 74, 209
 School of Human Sciences and
 Humanities Courses • 244
 School of Science and Computer
 Engineering • 74, 267
 School of Science and Computer
 Engineering Courses • 301
 School Psychology (Specialist in School
 Psychology) • 234
 School Psychology (SSP) • 241
 Semester 1 (9 credits) • 271
 Semester 2 (9 credits) • 271
 Semester 3 (9 credits) • 271
 Semester 4 (6 credits) • 271
 Simultaneous UHCL Master's Degrees •
 88
 Social Issues Sub-Plan • 240
 Sociology (Master of Arts) • 241
 Sociology Courses • 262
 Software Engineering • 280
 Software Engineering Capstone Option
 (3 hours of capstone + 12 hours of
 electives) • 282
 Software Engineering Certificate • 283
 Software Engineering Core Requirements
 (21 hours) • 281
 Software Engineering Courses • 321
 Software Engineering Thesis Option (6
 hours of thesis + 9 hours of electives) •
 282
 Software Engineering via Distance
 Education (Online) • 283
 Software Project Management Sub-plan •
 282
 Software Safety Sub-plan • 282
 Spanish Courses • 265
 Special Education Courses • 203
 Special Education Supplemental
 Certificate (19 Hours) • 158

- Special Events Program • 69
- Special Fees • 50
- Standards and Requirements for Degrees in the School of Science and Computer Engineering • 268
- Standards for Graduate Degrees • 268
- State Assessments Information • 137
- Statistics • 275
- Statistics Core Requirements (21 hours) • 275
- Statistics Courses • 323
- Statistics Extended Course Work Option (15 hours) • 275
- Statistics Thesis Option (15 hours) • 275
- Student Advocacy • 65
- Student Assistance Center • 65
- Student Center Fee • 49
- Student Financial Responsibility • 57
- Student Housing • 68
- Student Life • 69
- Student Organizations and Student Government Association • 69
- Student Publications • 70
- Student Responsibility • 74
- Student Service Fee • 48
- Student Services • 63, 94
- Student Success Center • 70
- Student Travel Policy • 65
- Student-Initiated Withdrawals • 76
- Studies in Language and Culture Courses • 202
- Sub-plan in Database and Web-based Systems • 271
- Sub-plan in Digital Signal Processing (DSP) • 278
- Sub-plan in Networking and Security • 271
- Sub-plan in Technical Management • 299
- Sub-plan in Telecommunications • 278
- Superintendent Certification • 178
- Supplemental Certificates • 157
- suspension • 75, 80, 85

- Systems Engineering • 283
- Systems Engineering Capstone Option (3 hours of capstone + 12 hours of electives) • 285
- Systems Engineering Certificate • 285
- Systems Engineering Core Requirements (21 hours) • 284
- Systems Engineering Courses • 324
- Systems Engineering Elective Hours • 284
- Systems Engineering Elective Options • 284

T

- Teacher Certification • 22
- Teacher Education Courses • 204
- Telephone Numbers and Information • 25
- Texas Education Agency (TEA) • 138
- The Campus • 10
- The University • 7
- Thesis Option • 268
- Time Conflict Enrollment • 45
- Time Limitation on Past Course Work • 88
- Transcripts • 58
- Transcripts, Records and Transfer Work • 17
- Transfer of Graduate Credit • 22
- Transfer-In Policy • 26
- Tuition • 46
- Tuition and Fees • 45
- Tuition Designated Fee • 48
- Tuition Residence Regulations and Appeals • 46

U

- UHCL Alumni Association • 12
- UHCL Bilingual Administrator Certificate • 179
- UHCL Bilingual Counselor Certificate • 171

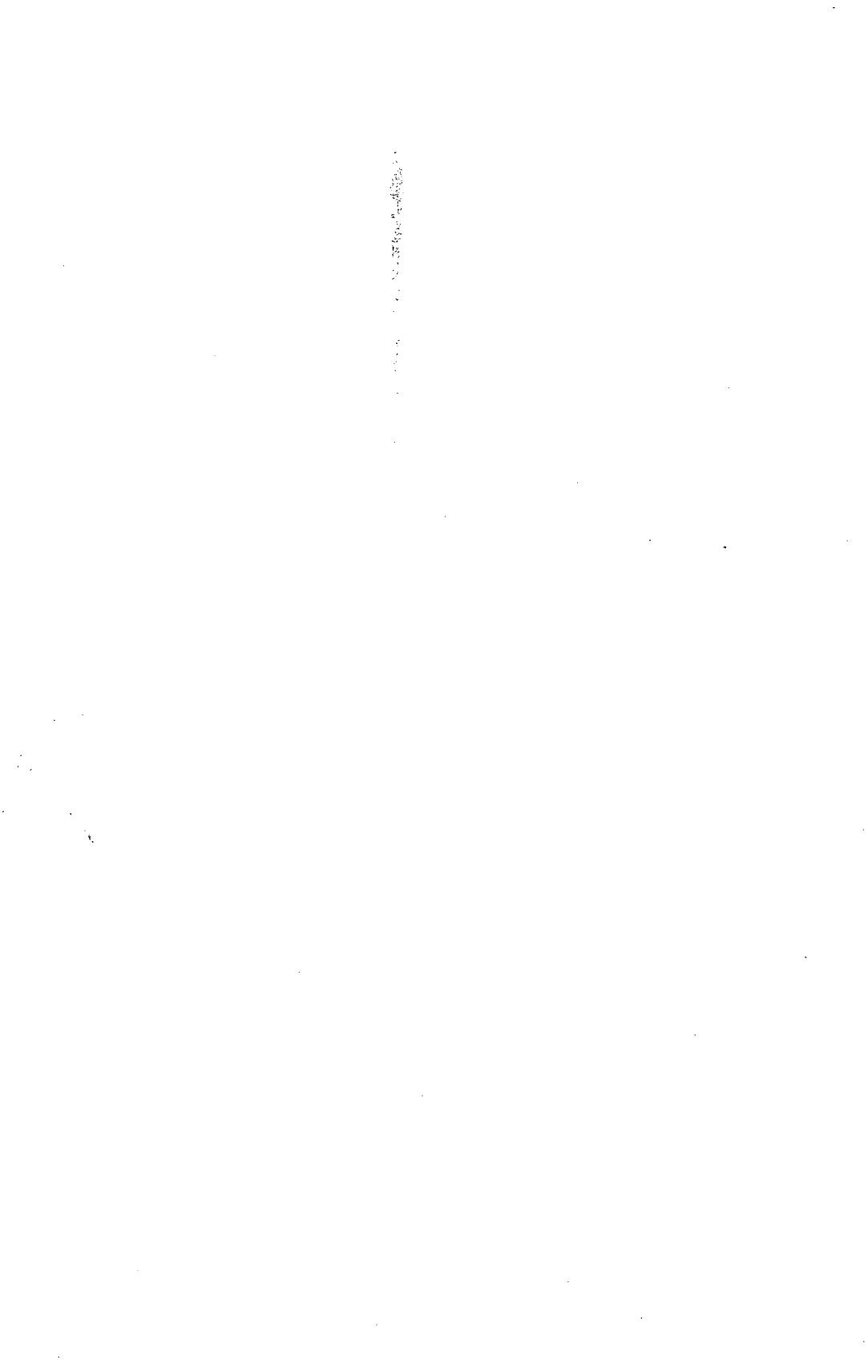
UHCL Bilingual Counselor Certificate (6 Hours) • 161
UHCL Certificates (Not State Certificates) • 161
UHCL Distance Education Certificate (9 Hours) • 162
UHCL Performance Technology Professional Development Certificate (12 Hours) • 162
UHCL Technology Applications (EC-8) Professional Development Certificate (3 Hours) • 162
UHCL-NCBI Campus Affiliate • 68
University Degree Requirements • 85
University of Houston System Administration • 327
University of Houston-Clear Lake Administration • 328
University of Houston-Clear Lake Faculty • 330
University Police • 12
University Policy Regarding Discretionary Authority • 29
University Services • 10

V

Veterans Affairs • 39
Vocational Rehabilitation • 41

W

Web Based Electives (Distance Option) • 282
Women's and LGBT Services • 67
Women's Studies Certificate • 243
Women's Studies Courses • 265
Women's Studies Sub-Plan • 213, 225
Writing Center • 12, 71
Writing Center Support Fee • 50



UNIVERSITY OF HOUSTON-CLEAR LAKE MISSION

The University of Houston-Clear Lake is a student-centered, community-minded, partnership-oriented university that offers bachelor's, master's and selected doctoral programs to enhance the educational, economic and cultural environment of the Houston-Galveston metropolitan region. UH-Clear Lake serves a diverse student body with special emphasis on undergraduate transfer, graduate and international students. The university offers the highest quality instruction and nationally accredited academic programs designed to develop the critical thinking, creative, quantitative, leadership and communication skills of students. The university conducts applied and basic research and engages in community and professional service that support both the economic development and the quality of life of the area. The university is committed to community engagement through partnerships with educational institutions, businesses, government agencies and nonprofit organizations.

CORE VALUES STATEMENT UNIVERSITY OF HOUSTON-CLEAR LAKE

Approved by University Life Committee June 24, 2010

Approved by University Council February 8, 2011

Our decisions and behaviors are guided by these values with regard to promoting learning, scholarship, and service at the University of Houston-Clear Lake. These values equally help to shape the university's culture and promote respect for all students, faculty, staff, administrators, and other members of the university community.

Learning: UHCL inspires all individuals within the university community to pursue lifelong learning through a dedication to intellectual and personal growth.

Trust: UHCL encourages open and honest communication which embraces the freedom of diverse ideas.

Integrity: UHCL proudly promotes and supports personal, academic, and ethical standards within the university and the community we serve.

Opportunity: UHCL actively fosters the freedom to productively and enthusiastically pursue and enhance quality of life for ourselves and our communities.

Diversity: UHCL facilitates a respectful and inclusive environment with regard to individual, societal, and global perspectives.

Leadership: UHCL empowers individuals with the freedom to learn, grow, and develop as leaders.

Quality: UHCL commits to continually demonstrate excellence through the actions of our students, faculty, staff, and administrators.

Innovation: UHCL supports innovation through the development of collaboration, creativity, and critical thinking.



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