

ENVIRONMENTAL SCIENCE

With Specializations in

Environmental Biology/Environmental Chemistry/Environmental Geology/Industrial Hygiene and Safety
(B.S. at UHCL; A.A./A.S. at Community College \)

University-Required Transfer Courses

<u>Foot- notes</u>	<u>Core Curriculum Requirements*</u>	<u>Core #</u>	<u>4</u>	<u>Foot- notes</u>	<u>Program Foundation Courses</u>	
a	ENGL 1301 - Composition I	3	10	a,#	ENGL 2311 – Technical Report Writing **	3
a	ENGL 1302 – Composition II	3	10	#	PHYS 1401 & 1402 – College Physics I/II	8
b	Humanities	3	40	h,#	CHEM 2423 & 2425 - Organic Chemistry I/II** (or electives)	4-8
c	HIST 1301 – American History I	3	60			
c	HIST 1302 – American History II, or HIST 2301,2302 or 2303 – Texas History	3	60	i, #	Recommended foundation courses appropriate for specialization**	3-8
	GOVT 2301 – Government I	3	70			18-27*
	GOVT 2302 – Government II	3	70	j	<u>Prerequisites &/or Remedial Courses</u>	
d,#	MATH 2413 – Calculus I (or higher)	4	20	d	MATH 1316 – Trigonometry	3
e	Visual & Performing Arts **	3	50	d	MATH 2312 or 2412 – Elementary Functions/Precal	4
#	CHEM 1411 – General Chemistry I	4	30			
#	CHEM 1412 – General Chemistry II	4	30			
f	Social & Behavioral Science **	3	80	l	<u>Additional Courses for the Associate Degree</u>	
g	Speech Communication	3	11			
	Computer Competency	3	90			
		45*				

Explanation of Footnotes

- \ Associate degree requirements at the community college, including the minimum allowed grade point average, are found in the community college catalog in effect during the student's initial semester of continuous enrollment. See a community college counselor for more information. Please note that not all courses are offered at all community colleges. Check with your counselor for availability of courses on your campus.
- * UHCL's requirements are consistent with the 42- hour Texas core curriculum. If a student completes a component of the core at one Texas institution, that block of courses will be substituted for UHCL's same core component(s). Additional Program Foundation courses are required. **Please refer to your school's core requirements for specific courses in each area below.**
- ** These courses may be fulfilled by approved upper-level equivalents at UHCL.
- # These courses are included in the Program Foundation Core and must be completed with a grade of "C-" or better.
- a Must complete six hours of Composition with grade of "C-" or better. Three hours of technical writing are required by the School of Science and Computer Engineering.
- b Suggested courses for Humanities include: any ENGL literature, HUMA, PHIL, RELI, SPCH or HIST (in addition to core requirements), or sophomore-level foreign language course.
- c Six hours of American History required; three hours may be in Texas History.
- d MATH 2413 may require prerequisites.
- e Suggested courses for Visual & Performing Arts include: any ARTS, DANC, DRAM, MUSI, or MUAP course. Three semester hours credit required.
- f Suggested courses for Social & Behavioral Science include: any ANTH, ECON, GEOG, PSYC, or SOCI course. Also any GOVT, HIST, or POLS course in addition to core requirements.
- g Suggested courses for Speech/Communication include: any SPCH course.
- h All specializations require at least 3 hours of Organic Chemistry. For the Chemistry specialization 6 hours are required; all should be completed at same institution.
- i Additional foundation courses recommended for specializations: **BIOLOGY – BIOL 1411, 1413, 1406, or 1407. CHEMISTRY – Programming Language; GEOLOGY – GEOL 1403, 1404; INDUSTRIAL HYGIENE AND SAFETY – BIOL 2401, 2402.**
- j With the exception of remedial courses, these courses will count toward the bachelor's degree at UHCL as lower-level electives. These courses are either prerequisite courses for required university courses, courses required for the associate degree, or are required remedial courses to satisfy the TASP mandate.
- 4 The core component number is used by Texas schools to identify which area of the 42-hour core curriculum a course fills.

**SCHOOL OF SCIENCE AND COMPUTER ENGINEERING
BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE
2005-2006 CATALOG**

GENERAL DEGREE REQUIREMENTS

- * A minimum of 132 hours for the Bachelor of Science degree. A maximum of three hours of lower-level “activities” courses may be applied toward graduation.
No more than 18 semester hours of previously earned lower-level credit may have been taken by correspondence, extension or CLEP.
- * At least 54 semester hours of upper-level work. Correspondence, extension or CLEP credit cannot be used to fulfill this requirement.
- * At least 30 hours of the degree plan, including 12 hours in the major, must be taken in residence at UHCL.
- * A cumulative GPA of 2.000 on course work completed at UHCL with grades of “C” or better on at least 30 hours of resident upper-level work. Grades of “C-“ and below can not be applied toward the 30 hours of resident upper-level work.
- * Remain continuously enrolled (complete at least one course in a 12 month period) or meet requirements of a later catalog.
- * Complete the degree within seven years or meet requirements of a later catalog.

BASIC REQUIREMENTS

For the degree being pursued, program requirements listed on the transfer plan section of this document and indicated by the # sign should be completed with grades of “C-“ or better before beginning the upper level program and finalizing a Candidate Plan of Study. All plan core requirements must be completed with a grade of “C-“ or better. At least 12 hours in science (Biology, Chemistry, Physics and/or Geology) must be completed before admission to the Environmental Science program.

SCE PLAN CORE REQUIREMENTS (18 hours)

CHEM 3233 – Organic Chemistry I	3 hrs	GEOL 3333 – Environmental Geology	3 hrs
(Must replace hours if taken at lower level)		CHEM 3333 – Environmental Chemistry	3 hrs
MATH 3038 or equivalent – Statistics	3 hrs	BIOL 3333 – Environmental Biology	3 hrs
Internship, Independent Study, Seminar, or Co-op	3 hrs	The balance of required hours may consist of approved electives.	

DESIGNATED SUB-PLAN OPTIONS – Select ONE (27 hours)

Environmental Biology

BIOL 3334 – Env. & Public Hlth. Microbiol.	3 hrs
BIOL 4131 - Ecology	3 hrs
BIOL 4434 – Comparative Animal Physiology	3 hrs
BIOL 4235 – Environmental Toxicology	3 hrs
CHEM 4521 – Lab for Environmental Analysis	2 hrs
Additional ENSC electives	13 hrs

Environmental Chemistry

CHEM 3230 – Survey of Physical Chemistry	3 hrs
CHEM 3234 – Organic Chemistry II	3 hrs
(Must replace of taken at lower level)	
CHEM 4635 – Analytical Chemistry I	3 hrs
CHEM 4636 – Analytical Chemistry II	3 hrs
CHEM 4521 – Lab for Environmental Analysis	2 hrs
Additional ENSC electives	13 hrs

Environmental Geology

GEOL 4234 – Geomorphology	3 hrs
GEOL 4222 – Laboratory for Geomorphology	2 hrs
GEOL 4235 – Sedimentation and Stratigraphy	3 hrs
GEOL 3631 – Photogeology	3 hrs
GEOL 4531 – Geology of Groundwater	3 hrs
Additional ENSC electives	13 hrs

Industrial Hygiene and Safety

INDH 4131 – Noise and Hearing Conservation	3 hrs
INDH 4133 – Industrial Ventilation	3 hrs
INDH 4135 – Industrial Radiological Health	3 hrs
INDH 4232 – IH Sampling & Analysis	3 hrs
BIOL 4235 – Environmental Toxicology	3 hrs
Additional ENSC electives	12 hrs

Additional Environmental Science electives in BIOL, CHEM, GEOL, INDH or ENVR will be chosen from an approved list of electives in consultation with your faculty adviser. In all cases, prerequisites for each course must be satisfied. A maximum of six hours of environmental management courses may be included as additional electives.

ADDITIONAL COURSES NECESSARY TO MEET UPPER-LEVEL REQUIREMENT OR TO MEET MINIMUM REQUIRED HOURS FOR GRADUATION: _____