

ENVIRONMENTAL SCIENCE, BACHELOR OF SCIENCE

Chemistry Specialization

2018-2019 Degree Plans

| University Core Requirements (43* Hours) | UHCL Course Title | TCCNS | CODE |
|---|---|-----------|------|
| Communications (6 hours): | WRIT 1301—Composition I (<i>Grade must be "C-" or better</i>) | ENGL 1301 | 010 |
| | WRIT 1302—Composition II (<i>Grade must be "C-" or better</i>) | ENGL 1302 | 010 |
| Mathematics (4* hours): | MATH 2413—Calculus I (<i>Grade must be "C-" or better</i>) | MATH 2413 | 020 |
| *Three (3) hours of Calculus will count toward the University Core and one (1) hour will count toward the Major | | | |
| Life and Physical Sciences (6 hours): | CHEM 1311—General Chemistry I (<i>lecture, Grade must be "C-" or better</i>) | CHEM 1311 | 030 |
| | CHEM 1312—General Chemistry II (<i>lecture, Grade must be "C-" or better</i>) | CHEM 1312 | 030 |
| Language, Philosophy, and Culture (3 hours): | Choose ONE course from the core approved list | | 040 |
| Creative Arts (3 hours): | Choose ONE course from the core approved list | | 050 |
| U.S. History (6 hours): | HIST 1301—U.S. History I | HIST 1301 | 060 |
| | HIST 1302—U.S. History II | HIST 1302 | 060 |
| Government/Political Science (6 hours): | POLS 2305—Federal Government | GOVT 2305 | 070 |
| | POLS 2306—Texas Government | GOVT 2306 | 070 |
| Social/Behavioral Science (3 hours): | Choose ONE course from the core approved list | | 080 |
| Component Area Option (6 hours): | COMM 1315—Public Speaking | SPCH 1315 | 090 |
| | PSYC 1100—Learning Frameworks | PSYC 1100 | 090 |
| | CHEM 1111—Lab General Chemistry I (<i>Grade must be "C-" or better</i>) | CHEM 1111 | 090 |
| | CHEM 1112—Lab for General Chemistry II (<i>Grade must be "C-" or better</i>) | CHEM 1112 | 090 |

| Major Requirements (33 hours) | UHCL Course Title | TCCNS | CODE |
|---|--|----------------|---------|
| Required minimum grade is "C-" in the following classes: | | | |
| | WRIT 3315—Technical Writing | | |
| | PHYS 1301/1101—College Physics I & Lab | PHYS 1301/1101 | 030/090 |
| | PHYS 1302/1102—College Physics II & Lab | PHYS 1302/1102 | 030/090 |
| | STAT 3308—Computational Statistics | | |
| | CHEM 2323/2123—Organic Chemistry I & Lab | CHEM 2323/2123 | |
| | CHEM 3333/ENSC 3332—Environmental Chemistry | | |
| | BIOL 3333/ENSC 3331—Environmental Biology | | |
| | GEOL 3333/ENSC 3333—Environmental Geology | | |
| | INDH 3333—Environmental Hygiene and Safety | | |
| | ENSC/CHEM 43xx—3 hours: Internship, Independent Study, Seminar or Advanced Studies | | |

| Specialization Requirements (35 hours) | UHCL Course Title | TCCNS* | CODE |
|---|---|----------------|------|
| Required minimum grade is "C-" for all Specialization Requirements | | | |
| | CHEM 2325/2125—Organic Chemistry II & Lab | CHEM 2325/2125 | |
| | CHEM 3320—Survey of Physical Chemistry | | |
| | CHEM 4268—Instrumental Analysis Lab | | |
| | CHEM 4367—Instrumental Analysis | | |
| | ENSC 3301—Energy & the Environment | | |
| | ENSC 4251—Lab for Environmental Analysis | | |

Specialization Requirements (35 hours, continued)

ENSC 4355—Environmental Sampling and Monitoring
ENSC 4356—Soil and Groundwater Remediation
ENSC 4352—Water Chemistry and Water Pollution
ENSC 4323—Soils in the Environment
ENSC 4333—Introduction to Environmental Engineering
GEOL 4333—Introduction to Global Climate Change

Specialization Electives (9 hours)**Required minimum grade is "C-" for all Specialization Electives**

Specialization electives are junior or senior level science or related classes. Choose from: BIOL 4325, 4311; CHEM 4373, 4274, 4371; ENSC/BIOL 4334; GEOL/ENSC 3307, 4335, 4351; GEOL 4326

General Degree Requirements

- Students must complete at least 120 semester credit hours. A minimum of 45 hours of the 120 semester hours must be advanced (3000-4000 level) course work according to the requirements of the respective major.
- Students must complete the University Core Curriculum requirements (refer to Core Curriculum Requirements section of this catalog).
- Students must fulfill the statutory requirements of the Texas State Education Code, including the following:
 - Six hours of U.S. History (three hours may be Texas History).
 - Six hours of Constitutions of the United States and Texas.
- Students must demonstrate writing proficiency by completing nine hours of lower-level (1000-2000 level) and upper-level (3000-4000 level) English composition course credit with a minimum grade of "C-" or better. Some majors may require higher grades in English composition.
- Students must complete at least 25% of the credit hours required for the degree (i.e., 30 semester credit hours for a 120 credit hour program) through instruction offered by UHCL to fulfill the Southern Association of Colleges and Schools (SACS) residency requirements.
- Students must complete the final 30 semester hours of 3000 and 4000 level course work in residence at UHCL.
- Students must complete a minimum of 12 semester credit hours of upper-level (3000-4000 level) coursework in the major in residence at UHCL.
- Students must have a cumulative GPA of 2.000 on course work completed at UHCL with grades of "C" or better on at least 30 hours of resident upper-level work. Grades of "C-" or below cannot be applied toward the 30 hours of resident upper-level work.