Environmental Science M.S.

The graduate plan in Environmental Science leads to the master of science (M.S.) 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

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. Following completion of ENSC 5530, the student will be advised into ENSC 6731 or ENSC 6838 or ENSC 6939.

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.

Degree Requirements

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 college’s admissions committee.

Students should submit a written statement to the Science and Computer Engineering Academic Advising Office (sceadvising@uhcl.edu) 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 I and II with labs
- General Physics I and II with labs
- Calculus I

The following must be completed prior to or within the first year of study:

- Organic Chemistry I
- Statistics

The master's degree requires completion of a minimum of 36 hours.
Environmental Science Core

Environmental Science Core Requirements

The Environmental Science core must be taken in the order listed:

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<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>STAT 5135</td>
<td>Applied Statistical Methods</td>
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Additional Information

Students select between ENSC 6731 or ENSC 6838 or ENSC 6939.

Environmental Science Thesis Option (36 hours)

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Designated electives 24 hours (maximum of six hours of 4000-level credit) and 6 hours of thesis.

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<th>Title</th>
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<tr>
<td>STAT 5135</td>
<td>Applied Statistical Methods</td>
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Additional Information

- Electives are selected in consultation with the faculty adviser and must include at least one course from three of the following rubrics: BIOL, CHEM, GEOL or INDH.
- A maximum of six hours of environmental management (ENVR) courses may be included.

Environmental Science Research Project Course Option (36 hours)

Environmental Science Research Project Course Option (36 hours)

Designated electives 27 hours (maximum 6 hours of 4000-level credit).

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<tr>
<td>STAT 5135</td>
<td>Applied Statistical Methods</td>
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</table>

Additional Information

- Students select between ENSC 6838 or ENSC 6731.
- Electives are selected in consultation with the faculty adviser and must include at least one course from three of the following rubrics: BIOL, CHEM, GEOL or INDH.
- A maximum of six hours of environmental management (ENVR) courses may be included.

Environmental Science Specializations

Environmental Biology Specialization

Electives:

Environmental Biology Specialization Electives:

Selected in consultation with adviser (24-27 hours). Cross discipline courses (12 hours maximum) selected from: CHEM 5431, CHEM 5535, CHEM 5731, GEOL 5331, GEOL 5333, GEOL 5532, GEOL 5631, GEOL 5632, GEOL 5931, INDH 5333, ENVR 5332, ENVR 6132.

Environmental Chemistry Specialization

Electives:

Environmental Chemistry Specialization Electives:

Selected in consultation with adviser (24-27 hours). Cross discipline courses (12 hours maximum) selected from: BIOL 5233, BIOL 5332, BIOL 5333, CHEM 5133, GEOL 5331, GEOL 5532, GEOL 5632, INDH 5333, ENVR 5332, ENVR 6132.

Environmental Geology Specialization

Electives:

Environmental Geology Specialization Electives:

Cross-discipline courses (12 hour maximum) must be selected in consultation with faculty adviser.
Industrial Hygiene Specialization Electives:

Cross-discipline (12 hour maximum) CHEM/GEOL courses must be approved in advance by the adviser.

Safety Specialization Electives:

INDH 5xxx System Safety and Accident InvestigationCross-discipline (12 hours maximum) BIOL/CHEM/GEOL courses must be approved in advance by the adviser.

Environmental Science M.S. Online Option

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. Following completion of ENSC 5530, and in consultation with their faculty adviser, on-line students will enroll in ENSC 6731 or ENSC 6838 and prepare their major capstone research paper.

Degree Requirements

Environmental Science Online Option (36 hours)

Additional Information

Students select between ENSC 6838 or ENSC 6731.

Environmental Science General Online Course Electives

Must include at least one course from three of the following rubrics: BIOL, CHEM, GEOL, and INDH.

Additional Information

- Electives are selected in consultation with the faculty adviser.
- A maximum of six hours of environmental management (ENVR) courses may be included.

Environmental Science Occupational Safety & Health Online Course Electives

Must include at least one course from three of the following rubrics: BIOL, CHEM, GEOL, and INDH.

Additional Information

- Electives are selected in consultation with the faculty adviser. Other online electives may be taken after approval of faculty adviser.
- A maximum of six hours of environmental management (ENVR) courses may be included.