



ENVIRONMENTAL SCIENCE | COLLEGE OF ARTS AND SCIENCES

INTERDEPARTMENTAL MAJOR IN ENVIRONMENTAL SCIENCE – B.S.

The Environmental Science major is an interdepartmental program that leads to a Bachelor of Science degree in Biology, Chemistry, or Geology, with a major in Environmental Science. It provides a rigorous interdisciplinary background in the natural science segment of the environmental sciences, combined with a significant background in the allied disciplines of physics and mathematics, and coursework in environmental affairs.

The Environmental Science major is designed to prepare students for graduate programs or employment as scientists in technical fields associated with the environmental industry and government sector. These disciplines include hydrology, environmental hazard mitigation, waste management, water and air quality issues, ecology, and habitat issues.

DEGREE REQUIREMENTS

All students are responsible for fulfilling the general requirements of the bachelor's degree as established by the College of Arts and Sciences, which include a minimum of 36 hours at the 300-400 level.

Completion of the B.S. in environmental science requires a total of 120 credit hours and a minimum of a 2.0 grade point average. Students fulfill core requirements from the disciplines of geology, biology and chemistry and choose two disciplines for an interdepartmental concentration area. Please consult the individual departments for more information.

Students are required to complete a minimum of 40 credit hours in the interdepartmental major with a minimum of 12 credit hours at the 300- or 400-level in each of the two concentration areas. Students are required to complete additional courses in associated areas of study.

COURSEWORK

Students complete two courses in each of the scientific disciplines, biology, chemistry, and geology to fulfill the program core.

Required core courses:

- Introduction to Biological Sciences I and II (lecture and laboratory)
- Principles of Chemistry I and II (with associated labs)

- Introduction to Earth Sciences (and laboratory)
- Introductory Mineralogy

Required courses in Public and Environmental Affairs (Allied Environment) include ONE of the following:

- Environmental Law **OR** Environmental Mediation

Students complete a combined total of 40 credit hours from **two** of the scientific disciplines (chosen from biology, chemistry, and/or geology). The 40 credit hours need not be equally divided between the two disciplines.

Examples of upper level coursework may include:

- Ecology, Environmental Biology, Fungi, Plant Diversity, Restoration, Zoology, Individual Study in Biology
- Climate Change Science, Field and Laboratory Techniques, Geographic Information Systems, Hydrogeology, Sedimentology and Stratigraphy, Senior Geoscience Research Analytical Chemistry, Environmental Chemistry, Organic Chemistry, Chemical Research
- Analytical Chemistry, Environmental Chemistry, Organic Chemistry, Chemical Research

The complete list of acceptable coursework is available [online](#).

PROGRAM HIGHLIGHTS

The B.S. in environmental science is designed to give students a rigorous scientific and policy background while providing the diversity of information often needed to face environmental problems affecting the world today and in the future. Majors will have access to the faculty, resources and opportunities of the Departments of Geosciences, Chemistry and Biology.

WHAT CAN I DO WITH A B.S. IN ENVIRONMENTAL SCIENCE?

Graduates with a B.S. in environmental science will be well prepared to pursue careers in graduate school or employment in the private sector, government, environmental science and

related fields, environmental law, environmental policy, environmental health, and teaching. Students will have experience in both laboratory science and field work to address environmental issues that may include water quality, air quality, soil science, resource management, and restoration.

HANDS-ON LEARNING

The Departments of Geosciences, Chemistry and Biology offer fully equipped teaching and research laboratories. Opportunities are also available to gain hands-on learning, research experience and career preparedness through internships, civic engagement projects, and independent research.

Extensive opportunities for field research are available that include projects related to water quality, air quality, hydrology, coastal processes, and ecological processes.

CLUBS AND ACTIVITIES

The department of Geosciences sponsors the Geology Club which participates in field trips and activities related to geology and the environment. The department also sponsors a chapter of Sigma Gamma Epsilon, that national honorary society in geology.

The department of Chemistry is involved in community outreach programs.

The department of Biology sponsors a chapter of Beta Beta Beta, the national honorary society in biology. Also available to students are the Biology Club and the Pre-professional Studies Club, which offer more avenues for learning and experience related to a student's formal training.

FOR MORE INFORMATION

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