

Environmental Science (405)

ASSOCIATE OF SCIENCE

About Our Program

This program is intended to provide the first two years of a four-year baccalaureate program. Environmental Science majors apply biological, chemical, and physical principles to the study of the physical environment and the solution of environmental problems, including subjects such as abating or controlling environmental pollution and degradation; the interaction between human society and the natural environment; and natural resources management.

Program Outcomes

- Students should be able to understand and employ aspects of scientific methodologies.
- Students should practice proper lab technique in compliance with relevant safety standards.
- Students should understand the fundamental uncertainties in experimental measurements inherent in different laboratory techniques and instrumentation.
- Students should be able to analyze data sets and communicate information in a clear and organized manner with presentations and properly cited written reports.
- Students should utilize peer-reviewed scientific literature effectively.
- Students should be able to work with peers in a team setting.
- Students should be able to relate contemporary societal and global issues to the physical and life sciences.

Nature of Work and Employment

Environmental scientists identify and analyze environmental problems both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. The most common jobs people have one year after graduating with a baccalaureate degree in this major are Researcher, Policy Adviser, Compliance Officer, and Consultant.

Special Considerations

Those interested in Environmental Science should have an aptitude for interdisciplinary Science and Mathematics as well as an awareness of Sociological and Political issues. The listed coursework is a recommendation only. Students should check with a student advisor for HCC graduation requirements and specific university requirements in this major. Students must meet with an advisor to ensure that the special requirements of the department and institution to which they plan to transfer are met. Colleges and universities have specific requirements for transfer students. Students are encouraged to take MATH 255 Analytic Geometry and Calculus II as it is required by some programs.

Program Contacts

Call Highland at 815-235-6121 for the following program contacts:

- Dr. Brendan Dutmer, Dean, Natural Science and Mathematics
- Steven Curran, Geography/Earth Science Faculty
- Karla Giuffre, Biology Faculty
- Tony Grahame, Biology Faculty
- Juliet Moderow, Biology Faculty
- Alan Nowicki, Biology Faculty
- Beth Groshans, Student Advisor

Recommended Courses

The following are recommended courses for this major only. Students must still meet all requirements for the Associate of Science degree (see page 58) in order to graduate from Highland Community College. For more information, please see your student advisor.

Chemistry

* CHEM	123	General College Chemistry I	5
* CHEM	124	General College Chemistry II	5

Environmental Sciences (Life and Physical)

BIOL	116	Introduction to Ecology	4
GEOL	126	Geology	4
NSCI	115	Human-Environmental Issues	3
* NSCI	232	Fundamentals of Meteorology	4

Mathematics

* MATH	134	Statistics	4
* MATH	250	Analytic Geometry and Calculus I	5
* MATH	255	Analytic Geometry and Calculus II	5

Physics

* PHYS	141	Introductory Physics I	4
* PHYS	142	Introductory Physics II	4
		-or-	
* PHYS	143	General Physics I	4
* PHYS	144	General Physics II	4

* Course has a prerequisite. See course description.