

# ENVIRONMENTAL SCIENCE, ASSOCIATE OF SCIENCE (405)

## 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.

## 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/Calculus II as it is required by some programs.

## Requirements

### Associate of Science Requirements

Students must meet all requirements for the Associate of Science degree (<https://catalog.highland.edu/programs-available/as-requirements/>) in order to graduate from Highland Community College. For more information, please see your advisor.

## Recommended Courses

The following are recommended courses for this major only.

### Chemistry

Code	Title	Hours
CHEM 123	General College Chemistry I <sup>1</sup>	5
CHEM 124	General College Chemistry II <sup>1</sup>	5

### Environmental Sciences (Life and Physical)

Code	Title	Hours
BIOL 116	Intro To Ecology	4
GEOL 126	Geology	4
NSCI 115	Human Environmental Issues	3
NSCI 232	Fund of Meteorology with Lab <sup>1</sup>	4

### Mathematics

Code	Title	Hours
MATH 134	Statistics <sup>1</sup>	4
MATH 250	Analytic Geometry/Calculus I <sup>1</sup>	5
MATH 255	Analytic Geometry/Calculus II <sup>1</sup>	5

### Physics

Code	Title	Hours
Select one of the following:		8
PHYS 141 & PHYS 142	Introductory Physics I and Introductory Physics II <sup>1</sup>	
PHYS 143 & PHYS 144	General Physics I and General Physics II <sup>1</sup>	

<sup>1</sup> Course has a prerequisite. See course description.

## 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.

## Program Contacts

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

- Dr. Brendan Dutmer, Dean, Natural Science and Mathematics
- Kasey Brockelsby, Biology Faculty
- Steve Curran, Geography and Earth Science Faculty
- Karla Giuffre, Biology Faculty
- Juliet Moderow, Biology Faculty
- Alan Nowicki, Biology Faculty
- Beth Groshans, Student Advisor