

# SCIENCE EDUCATION, ASSOCIATE OF SCIENCE (413)

## About Our Program

This program is intended to provide the first two years of a baccalaureate program. This program broadly studies the natural sciences and prepares students for specialization in an area such as biology, chemistry, earth science, or physics. Science Education majors intend to teach, usually at the secondary level.

## Nature of Work and Employment

After completion of a Bachelor's degree with a major in this field, students are prepared to become a high school or middle school teacher, or pursue an advanced degree.

## Special Considerations

Science Education programs tend to include introductory science major coursework across many science fields and then further focus on a specialization, for example Biology Education, Chemistry Education, Earth Science Education, or Physics Education. 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.

## 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.

### Biology

Code	Title	Hours
BIOL 208	Biology I: Cell & Molecular <sup>1</sup>	4
BIOL 209	Biology II: Biodiversity/Evolu <sup>1</sup>	4

### Chemistry

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

### Earth Science

Code	Title	Hours
GEOL 126	Geology	4
NSCI 115	Human Environmental Issues	3
NSCI 132	Physical Geography	4
NSCI 133	Intro to Astronomy with Lab <sup>1</sup>	4
NSCI 232	Fund of Meteorology with Lab	4

### Education

Code	Title	Hours
EDUC 224	The Exceptional Individual	3
EDUC 221 or EDUC 222	American Public School Education As An Agent Change	3

### 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>	

### Psychology

Code	Title	Hours
PSY 161	Introduction to Psychology <sup>1</sup>	3
PSY 261	Educational Psychology <sup>1</sup>	3

<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
- Dr. Ghaneshwar Gautam, Physics and Engineering Faculty
- Karla Giuffre, Biology Faculty
- Juliet Moderow, Biology Faculty
- Alan Nowicki, Biology Faculty

- John Sullivan, Chemistry Faculty
- Beth Groshans, Student Advisor

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