CHEMISTRY, ASSOCIATE OF SCIENCE (406)

About Our Program

This program is intended to provide the first two years of a four-year baccalaureate program. Majors in Chemistry study the composition, structure, and properties of substances and the reactions, interactions, and transformations they undergo.

Nature of Work and Employment

The three most common jobs people have one year after completion of their Bachelor's degree in this major are chemical technician, chemist, and secondary teacher.

Special Considerations

Those interested in this field should possess a strong aptitude for mathematics and science as well as curiosity and an attention for detail. 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 265 Differential Equations and MATH 270 Linear Algebra.

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 [1]	5
CHEM 124	General College Chemistry II [1]	5
CHEM 221	Organic Chemistry I [1]	5
CHEM 222	Organic Chemistry II [1]	5

Mathematics

Code	Title	Hours
MATH 250	Analytic Geometry/Calculus I [1]	5
MATH 255	Analytic Geometry/Calculus II [1]	5
MATH 269	Analytic Geometry/Calculus III [1]	4
MATH 265	Differential Equations [1]	3
MATH 270	Linear Algebra [1]	3

Physics

Code	Title	Hours
PHYS 143	General Physics I [1]	4
PHYS 144	General Physics II [1]	4
PHYS 145	General Physics III [1]	4

[1] 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
- John Sullivan, Chemistry Faculty
- Beth Groshans, Student Advisor

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