

# Chemistry Program

ODU's Chemistry Program prepares students for graduation and life after college with problem solving and cognitive abilities, as well as the readiness to address scientific issues of an unknown future.

Grounded in the robust, core principles of the chemical sciences, ODU Chemistry graduates seek the truth and appreciate the qualitative and quantitative elegance of their discipline and its ever-strengthening connections to other disciplines.

## Program Highlights

- Small class sizes and department allows ample interaction between professors and students
- Internships and summer research fellowships enhance students' education and experience
- Minutes from opportunities in downtown Columbus
- State-of-the-art labs and facilities available for student use

## Career Opportunities

Students pursuing a degree in Chemistry will be prepared for a variety of career options, including:

- Agriculture
- Biotechnology
- Education
- Energy
- Environmental Protection
- Forensics
- Fundamental or Applied Research
- Pharmacy
- Sales
- Science Policy
- Science Writing

## Learning Outcomes

With the knowledge students gain from their Chemistry studies, ODU graduates will be able to:

- Demonstrate knowledge of and mathematical proficiency in the core concepts of chemistry
- Know and practice the scientific method of iterative observation, hypothesis generation and experimentation
- Practice excellent technique in laboratory manipulations required for common chemistry experiments and comprehensive training in chemical safety
- Understand chemistry's interplay with other fields in integrated science
- Be prepared for a career in chemistry or graduate studies in the chemical sciences

## State-Of-The-Art Facilities

Battelle Hall is our 25,000-square-foot, state-of-the-art science building featuring seven instructional labs, three research labs, six core labs, an autoclave, a cadaver lab and collaborative workspace. The building opened in 2010 with funding in part by a \$2.5 million gift from Battelle, the world's largest independent research and development organization.

## Chemistry Four-Year Sample Plan

<b>Year 1-Fall</b> ENG 110 CORE 179 CHM 109 MTH 240	<b>Year 2-Fall</b> CORE 279 CHM 231 + 231L PHY 219 THL	<b>Year 3-Fall</b> CORE 379 CHM 359 LNG 242 CHM 451 Art/Music/Theatre	<b>Year 4-Fall</b> CHM 439 Elective THL Elective Elective
<b>Year 1-Spring</b> ENG 111 CHM 110 MTH 241 BIO 201	<b>Year 2-Spring</b> CHM 232 + 232L PHY 220 HST PHL Social/Behavioral Science	<b>Year 3-Spring</b> CHM 360 LIT PHL Social/Behavioral Science Elective	<b>Year 4-Spring</b> CHM 479 CHM 444 + 445 Elective Elective

View course descriptions at [ohiodominican.edu/Chemistry](http://ohiodominican.edu/Chemistry)

## Program Requirements

### Major Courses:

- CHM 109 General Chemistry I
- CHM 110 General Chemistry II
- CHM 231 Organic Chemistry I
- CHM 232 Organic Chemistry II
- CHM 359 Analytical Chemistry
- CHM 360 Instrumental Methods of Analysis
- CHM 439 Thermodynamics and Kinetics
- CHM 444 Bioinorganic Chemistry
- CHM 445 Inorganic Chemistry Laboratory
- CHM 451 Biochemistry
- SCI 479 CORE: Research in the Sciences
- CHM 479 Quantum Mechanics and Spectroscopy

### Required Correlatives:

- BIO 201 General Biology: Cells/Genetics/Evolution
- MTH 240 Calculus I
- MTH 241 Calculus II
- PHY 219 General Physics I
- PHY 220 General Physics II

## Department Contact

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