



## CHEMISTRY

### ON-CAMPUS, ONLINE COURSES



University of Findlay

#### Program Overview

At the University of Findlay, the bachelor of science in chemistry prepares students to become professional chemists. This preparation is targeted toward a career goal, whether it's entering the workforce immediately after graduation or pursuing an advanced degree. Coursework in the chemistry program aligns with American Chemical Society (ACS) certification standards. This alignment signifies that University of Findlay graduates have learned the knowledge and possess skills deemed important by the world's largest professional organization for chemists.

It is the philosophy of the chemistry faculty to use a variety of teaching methods to convey information to students and to adopt a mentoring approach with regards to their professional development. As part of their degree requirements, students will work with faculty in various areas of chemical research, including organic, analytical, inorganic, physical, and biochemistry.

#### Program Highlights

**Undergraduate Research** - Beginning their first year, students have the opportunity to conduct hands-on lab and field research one-on-one or in small groups with our chemistry faculty. Paid summer research opportunities may be available.

**Solid Job Outlook** - Most industries hire chemists with specialties within the field. According to the Occupational Employment Statistics, Bureau of Labor Statistics, there will be 98,000 jobs available in 2029 for chemists, with a projected 5% growth in employment for chemists and materials scientists from 2024 to 2034. These rates exceed those of other occupations.

**Frost Brewer Science Center.** - Findlay's Department of Physical Sciences is primarily housed in the Frost Brewer Science Center:

- We have a total of eight laboratories, including analytical, physical, and laser spectroscopy labs.
- We are fully stocked with all necessary equipment and supplies needed to perform undergraduate research.
- The Newhard Planetarium is also housed within our Department.

#### WHY CHEMISTRY?

Chemists research and analyze the chemical properties of substances to develop new materials, products, or knowledge. Besides manufacturing, chemists may work in colleges, government, or independent testing facilities. Whether your college graduation goal is to enter the workforce or pursue an advanced degree, our chemistry degree will provide an excellent foundation.

#### ABOUT OUR FACULTY

At UF, you'll find instructors who maintain high standards while also drawing from their own professional experience to show you how concepts actually work in practice. Our faculty are invested in helping you connect what you learn today with what you'll do tomorrow. They set the bar high because they know you can reach it, and they're right there with you, making sure you graduate ready to hit the ground running.

**12:1\***

campus-wide student-to-faculty ratio ensures individual attention

**93%**

of undergraduate students receive financial aid

**2,000+**

locations for chemistry fieldwork, internships, and co-ops available nationwide

RECENT GRADS WERE HIRED AT COMPANIES LIKE THESE:



## EQUIPMENT AND INSTRUMENTATION

- Thermogravimetric analyzer (TGA)
- Differential scanning calorimeter (DSC)
- X-ray fluorescence (XRF) spectrometer
- Inert atmosphere manipulator and vacuum equipment
- Modular and handheld Raman spectrometer
- High-performance liquid chromatograph (HPLC)
- Gas chromatograph (GC)
- Gas chromatograph mass-spectrometer (GCMS)
- Atomic absorption (AA) spectrometer
- Fourier transform infrared spectrometer (FTIR)
- Fluorometer (fluorescence spectrometer)
- Ultraviolet/visible (UV/VIS) spectrometer
- Glovebox Inert Atmosphere System
- 400 MHz and 60 MHz nuclear magnetic resonance (NMR) spectrometers

## SAMPLE MAJOR CURRICULUM

### Chemistry

|                                             |       |                                          |            |
|---------------------------------------------|-------|------------------------------------------|------------|
| General Chemistry I with Lab . . . . .      | 4 hrs | Physical Chemistry I . . . . .           | 4 hrs      |
| General Chemistry II with Lab . . . . .     | 4 hrs | Physical Chemistry II . . . . .          | 4 hrs      |
| Organic Chemistry I with Lab . . . . .      | 4 hrs | Advanced Organic Chemistry . . . . .     | 3 hrs      |
| Organic Chemistry II with Lab . . . . .     | 4 hrs | Supervised Research/Internship . . . . . | 4 to 6 hrs |
| Chemical Analysis with Lab . . . . .        | 4 hrs | Elementary Statistics . . . . .          | 3 hrs      |
| Inorganic Chemistry . . . . .               | 3 hrs | Calculus I . . . . .                     | 4 hrs      |
| Synthesis & Characterization . . . . .      | 4 hrs | Calculus II . . . . .                    | 4 hrs      |
| Chemistry Seminar . . . . .                 | 4 hrs | Differential Equations . . . . .         | 3 hrs      |
| Biochemistry . . . . .                      | 4 hrs | Calculus-Based Physics I . . . . .       | 4 hrs      |
| Introduction to Chemical Research . . . . . | 3 hrs | Calculus-Based Physics II . . . . .      | 4 hrs      |

### Encouraged Courses

|                                         |       |                                    |       |
|-----------------------------------------|-------|------------------------------------|-------|
| Calculus III . . . . .                  | 4 hrs | Linear Algebra . . . . .           | 3 hrs |
| Intro to Discrete Mathematics . . . . . | 4 hrs | Probability & Statistics . . . . . | 3 hrs |

### Chemistry/Pre-Medicine Encouraged Courses

|                                                      |       |                                                  |       |
|------------------------------------------------------|-------|--------------------------------------------------|-------|
| Biodiversity, Form and Function with Lab . . . . .   | 4 hrs | Human Genetics with Lab . . . . .                | 4 hrs |
| Intro to Cell & Molecular Biology with Lab . . . . . | 4 hrs | Human Anatomy & Physiology I with Lab . . . . .  | 4 hrs |
| Basic Microbiology with Lab . . . . .                | 4 hrs | Human Anatomy & Physiology II with Lab . . . . . | 4 hrs |
| Immunology . . . . .                                 | 3 hrs | General Psychology (CORE+ elective) . . . . .    | 3 hrs |
|                                                      |       | Introduction to Sociology . . . . .              | 3 hrs |

### Chemistry Minor Curriculum

|                                         |       |                                                      |       |
|-----------------------------------------|-------|------------------------------------------------------|-------|
| General Chemistry I with Lab . . . . .  | 4 hrs | Organic Chemistry II with Lab . . . . .              | 4 hrs |
| General Chemistry II with Lab . . . . . | 4 hrs | Chemical Analysis with Lab or Biochemistry . . . . . | 4 hrs |
| Organic Chemistry I with Lab . . . . .  | 4 hrs |                                                      |       |

**Disclaimer:** The plan outlined above is a suggested course sequence. It may be adjusted based on prior college credit or transfer coursework earned before enrollment.

## CHEMISTRY ORGANIZATIONS

- Student Section of the American Chemical Society
- Chemistry Club



### "What attracted ME to UF?"

- Strong ties to Christianity
- Small, personal classes
- Devotion to growth
- Leadership development
- Emphasis on gaining a successful career"

– Ethan Lantz

**Choose Ohio First** This degree program is eligible for Choose Ohio First scholarship funding.



**OFFICE OF ADMISSIONS**  
419-434-4732 | 1-800-548-0932 | admissions@findlay.edu



APPLY