

**LOVE**   
**your major**

# Chemistry

Chemistry is everywhere in the world around you. It's in the food you eat, the clothes you wear, the water you drink, the medicines you take, the air you breathe, and cleaners you use. In fact, Chemistry is sometimes called the "central science" because it connects other sciences to each other, such as biology, physics, geology and environmental science. Beyond just understanding this complex, invisible world around us, the study of Chemistry also gives you the opportunity to solve important problems for society. Maybe your research turns into the cure for a disease. Maybe you find a better way to sanitize water for people in remote areas. Perhaps your research allows companies to produce food more efficiently. Because chemistry is in everything around us, your research could allow you to explore any interest you have.

In the Chemistry department at UNO, the coursework is rigorous and faculty have high expectations. Understanding the world on the molecular scale requires effort while application of the concepts you learn takes practice. Students gain an understanding of chemistry by reading and listening to lectures but also by doing. The theory learned in lecture and texts is practiced in the lab – both hands on synthesis and analysis of compounds, as well as dynamic modeling of molecules using computers. Students wanting to become doctors, physicists, nutritionists, geologists, and pharmacists all study chemistry. Chemistry also translates well to the business world, as it supplies students with the timeless knowledge and skills that are an asset to many organizations.

**Chemistry at UNO - Rigorous, Rewarding, Respected.**

## Course Highlights in Chemistry:

- Chemistry in The Environment and Society
- Introduction to Research in Chemistry
- Spectrometric Characterizations
- Principles of Biochemistry for the Health Sciences
- Essentials of Medicinal Chemistry
- Geochemistry

## SKILLS AND KNOWLEDGE GAINED AS A CHEMISTRY MAJOR:

### Knowledge:

- Students learn to appreciate the world on the macro-scale, such as synthesis of medicine, plastics or biomolecules, while learning the underlying principles occurring on the molecular level
- Gain an understanding of how to collect, organize and interpret chemical data
- Students are able to focus their research on specializations of interest: organic, physical, medicinal, biochemistry, etc.

### Skills:

- Students learn to use sophisticated instrumentation and equipment to investigate the world around them
- Students learn to critically analyze chemical information, synthesize the information, and present the information to a technical audience
- Chemistry majors become adept in laboratory work and data analysis
- Chemistry majors apply the principles of chemistry to solve qualitative and quantitative problems

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## Chemistry Major at a glance:

Number of majors: 146

Degrees offered: B.A. , B.S.

Concentrations: Medicinal, Education

Credit hours needed: 36-42

Minors offered: Yes

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## Career Opportunities

By nature, Liberal Arts majors make great employees in any field because of their ability to communicate effectively, think critically and solve complex problems. These timeless skills make them attractive to employers in a variety of professions. Specifically though, Chemistry majors often pursue careers as a:

- Lab Chemist
- Lab Technician
- Chemical sales and service representative
- Pharmacist\*
- Professor\*
- Quality Assurance Specialist
- Research Technician
- Medical Professional\*

\*Advanced Degree Required

When the Chemistry major is matched with complementary minors and thoughtful internships, new possibilities arise. A few examples are:

- **Chemistry**+ Business minor = Sales, management or consulting in industry
- **Chemistry** + sustainability minor = Environmental, Water, Petroleum industries
- **Chemistry** + forensics = Forensic Chemistry
- **Chemistry** + marketing minor = Pharmaceutical sales,
- **Chemistry** + English minor = Technical or Science writing

## Student Opportunities

- Undergraduate research opportunities; synthesizing potential drugs, studying aerosols in the atmosphere and more
- Chemistry Club for fun, friendship and learning outside of the classroom
- Internships in the Omaha area
- Taking chemistry to the community; Chem Field Day and other events
- Scholarships for chemistry majors

## Did you know?

The only elements that are liquid at room temperature are bromine and mercury. However, you can melt gallium by holding a lump in the warmth of your hand.

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## For more information:

For program information, contacts and course requirements visit:  
[www.unomaha.edu/chemistry](http://www.unomaha.edu/chemistry)

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