

# Chemistry

**PROGRAM OVERVIEW** The chemistry major provides a solid foundation of scientific knowledge and experimental skills in a setting that emphasizes current developments in chemistry and experience with modern instruments and laboratory techniques.

The Chemistry Department believes that undergraduate research plays a major role in developing critical thinking, practical expertise and independence and helps create a sense of community among faculty and students. Participation in a research project is a requirement for a chemistry degree. The chemistry faculty has research expertise in analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and physical chemistry.

Students preparing for graduate study or a professional career in chemistry should pursue the ACS-approved Bachelor of Science program. The Bachelor of Arts program is designed for students who need undergraduate training in chemistry in preparation for professional careers other than chemistry. The Bachelor of Science program is also open to those students.

The Chemistry Program at Drake provides a solid curriculum in all the areas of Chemistry while also providing for direct, personal interaction with faculty through research opportunities and advising/mentoring. Students also gain hands-on experiences with current instrumentation through coursework and research.

**FACULTY** The Chemistry Department has six full-time faculty all with PhDs. They are active in obtaining grants to support the program and in developing new teaching strategies. A number of them have received teaching awards. Their research interests are Physical Chemistry, Inorganic Chemistry, Organic Chemistry, Biochemistry, and Analytical Chemistry.

**ACADEMIC PREPARATION** No prerequisite high school courses or requirements are needed for enrollment in the chemistry program, but students should have a well-rounded academic high school curriculum. A strong background in mathematics is desirable.

**REQUIREMENTS FOR MAJOR** Students preparing for graduate study or a professional career in chemistry should pursue the ACS-approved Bachelor of Science program, which requires 50 credits. The Bachelor of Arts program, 38 credits, is designed for students who need undergraduate training in chemistry in preparation for professional careers other than chemistry. The Bachelor of Science program is also open to those students. Participation in a research project is a requirement for both degrees.

**REQUIREMENTS FOR MINOR** Twenty-four credits are required for a minor.

**DRAKE CURRICULUM** The Drake Curriculum, required of all undergraduates, is designed to help students meet personal and professional goals as they acquire fundamental knowledge and abilities in ten Areas of Inquiry, including communication, critical thinking, artistic experience, historical consciousness, information and technology literacy, international and multicultural experiences, scientific and quantitative literacy, values and ethics and engaged citizenship. Students work closely with their academic advisers to craft a program of study in general education that prepares students for civic and professional leadership.

The Drake Curriculum also requires first-year seminars, which foster development of critical thinking and written and oral communication skills through a topical focus; and a Senior Capstone, in which students demonstrate the capacity to bring information, skills and ideas to bear on one project.

**INTERNSHIPS & OPPORTUNITIES** The department features modern teaching and research laboratories in which students use high-tech, state-of-the-art instruments routinely used in research and industry. We offer undergraduate research experiences during the school year and in the summer. We also help students locate summer internships such as the Research Experiences for Undergraduates (REU) program administered by the National Science Foundation.

**CAREER OPTIONS** The chemistry major prepares students for graduate school in chemistry and related fields such as biochemistry, molecular biology, medicinal chemistry, and pharmaceutical, forensic and environmental science. Significant portions of our graduates go on to medical school. The major also prepares students for careers in governmental laboratories and industry. Many of Drake's chemistry alumni have earned graduate degrees in chemistry, physics and medicine while many others have taken rewarding jobs in industry, government and academic institutions.

**HONORS** The department gives awards for Freshman Academic Performance, Introductory Research Promise (Marguarite Wilson Award), Organic Chemistry Academic Performance, Junior Level Research Promise (Coppack Award), Analytical Academic Research (American Chemical Society), Outstanding Senior, Analytical Chemistry Academic Achievement (American Chemical Society)

**STUDENT ORGANIZATIONS AND ACTIVITIES** Students are encouraged to use the chemistry resource room for study, take an active part in Chemistry Club activities and become student affiliate members of the American Chemical Society (ACS).

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# HOW TO REACH US

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