

### **UMaine's** ADVANTAGE

- Opportunities for research
- State-of-the-art laboratories
- Close interaction with faculty
- Diversity of programs
- Great preparation for health professions

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## umaine.edu/chemistry

To apply: umaine.edu





# COLLEGE OF LIBERAL ARTS AND SCIENCES

#### WHY STUDY CHEMISTRY AT UMAINE?

The Chemistry Department at the University of Maine provides students with the foundational knowledge and practical skills to investigate and understand matter at the molecular level - from the basic structure of materials to techniques for synthesizing new drugs; from an understanding of chemical bonding to the control of properties of advanced materials for specific applications. The department is committed to providing students with instruction in the most modern practice of chemistry through ongoing curriculum development. It provides opportunities for chemistry majors to engage in exciting research in state-of-the-art labs alongside faculty and graduate students. UMaine chemistry majors are prepared for careers in the chemical industry and high school education, as well as for medical and other professional schools, and for graduate work in chemistry.

#### WHAT CAN I DO WITH A DEGREE IN CHEMISTRY?

The knowledge gained through the study of chemistry opens many career pathways. Upon graduating from UMaine, some students choose to continue their education in graduate degree programs in chemistry, pharmacology or medicine. Others are employed as research scientists in government or private laboratories. And still others teach chemistry in public and private schools.

#### **OUR UNDERGRADUATE PROGRAM**

The chemistry curriculum, certified by the American Chemical Society, is designed to provide a strong foundation in organic, inorganic, physical, analytical and biological chemistry. Students build on this foundation with in-depth coursework in two or more of these areas. Hands-on work in the lab is an important aspect of a student's training to be a future chemist. In the laboratory, students learn techniques that develop their ability to ask good scientific questions and explore possible solutions.

#### **OUR GRADUATE PROGRAM**

UMaine offers programs of study leading to M.S. and Ph.D. degrees in chemistry. Graduate students are automatically considered for teaching assistantships and, occasionally, a research assistantship. Graduate students are actively engaged in a variety of research opportunities involving organic synthesis, polymer and biomaterials chemistry, sensor development, alternative energy, surface chemistry, computational chemistry and bioinorganic chemistry.

#### **OPPORTUNITIES TO EXCEL**

Chemistry majors at the University of Maine are encouraged to conduct independent research with a faculty member and write a thesis about their project. UMaine is the only university in the state that offers graduate programs in chemistry. The presence of graduate students offers a unique and valuable experience for undergraduate chemistry majors who work closely with graduate students and faculty in research labs. Many students have co-authored scientific presentations and publications. The Department of Chemistry offers a number of scholarships to majors in chemistry, which are awarded based on merit and academic standing. The ACS-Hach Scholarship is aimed at students interested in a career in teaching.

#### OUR FACULTY

Faculty members are highly dedicated and experienced teachers and researchers. Many have interdisciplinary collaborations with colleagues in other units on campus, such as the Laboratory for Surface Science and Technology, Forest Bioproducts Research Institute, Graduate School of Biomedical Sciences and Engineering, Maine Center for

#### ABOUT UMAINE

The University of Maine, founded in Orono in 1865, is the state's premier public university. It is among the most comprehensive higher education institutions in the Northeast and attracts students from across the U.S. and more than 60 countries. It currently enrolls more than 11,000 total undergraduate and graduate students. UMaine students directly participate in groundbreaking research working with world-class scholars. The University of Maine offers doctoral degrees in 30 fields, representing the humanities, sciences, engineering and education; master's degrees in 85 disciplines; 90 undergraduate majors and academic programs; and one of the oldest and most prestigious honors programs in the U.S. The university promotes environmental stewardship on its campus, with substantial efforts aimed at conserving energy, recycling and adhering to green building standards in new construction. For more information about UMaine, visit umaine.edu.

## explore

Bachelor of Science in **Chemistry** (certified by the American Chemical Society)

Bachelor of Science in Chemistry

Concentrations in Pre-Medicine

#### Pre-Pharmacy

Bachelor of Arts in Chemistry

Minor in Chemistry

Master of Science in Chemistry

Doctor of Philosophy in Chemistry



Research in STEM Education, and the Sustainable Ecological Aquaculture Network. Teams of UMaine faculty, postdocs, graduate and undergraduate students are researching biomass conversion and sensors for detection of environmental pollutants; teaching with analogies in the lab; studying new methods to identify biomarkers for cancer; and miniature devices for applications.

#### HOW DO I APPLY?

Visit umaine.edu for an application, as well as information about academics and life at UMaine.

