UMaine's ADVANTAGE

- Graduates sought for well-paid jobs throughout New England
- Professors with Ph.D. degrees, not graduate students, teach classes
- State-of-the-art teaching and research facilities
- Industrial advisers ensure curriculum remains relevant
- Small, student-centered classes
- UMaine's Foster Center for Student Innovation offers courses in innovation engineering
- Home to one of the country's oldest honors programs

Department of Chemical and Biomedical Engineering
5737 Jenness Hall, Room 117
University of Maine
Orono, ME 04469-5737
207.581.2290

umaine.edu.chb
To apply: umaine.edu

1865 THE UNIVERSITY OF MAINE

COLLEGE OF ENGINEERING

Chemical Engineering

WHY CHEMICAL ENGINEERING?

Chemical engineers work at the interface of chemistry and engineering to design and optimize consumer products and the processes used to manufacture them. Many of these products, such as paper, semiconductors, plastics, fuels, foods, and pharmaceuticals are used in everyday life. UMaine offers B.S., M.S. and Ph.D. degrees in chemical engineering.

WHAT DO CHEMICAL ENGINEERS DO?

Chemical engineers design new manufacturing processes, make existing processes more cost and energy efficient, develop new products, provide technical support through sales and consulting, and manage processes to be safe and environmentally responsible.

HOW DO I BECOME A CHEMICAL ENGINEER?

Students enter UMaine's chemical engineering program with a strong interest in science and problem-solving. The curriculum provides thorough training in the fundamentals of engineering and chemical sciences. Employing this knowledge base, students develop the skills to engineer solutions addressing real-world issues. During their course of study, students are actively involved in laboratory work and engineering design projects, mentored by individual professors.

WHY UMAINE?

The typical chemical engineering student at UMaine has a strong interest in science and problem-solving. The curriculum develops broad knowledge in the principles of engineering and chemical sciences. Students develop the skills to solve real-world problems. Students are introduced to state-of-the-art techniques employed to design and analyze chemical processes. Laboratory work and engineering design projects are integrated throughout the curriculum to give students experience at solving problems and communicating their solutions.

Chemical engineering students receive individual attention from the professors through small class sizes, extracurricular activities, academic advising and undergraduate research opportunities.

A UMaine chemical engineering degree prepares students for careers in engineering, business, law and many other fields. For instance, the B.S. degree in chemical engineering includes most of the pre-requisites for acceptance into medical, dental and veterinary programs.

CO-OPS AND INTERNSHIPS

Chemical engineering students have the opportunity to participate in UMaine's cooperative work experience program, which provides two semesters of paid practical training and work experience with a company. The UMaine Career Center also has excellent resources for students who wish to explore internship opportunities.

SCHOLARSHIPS

The department awards a number of need- and merit-based scholarships. Students can also apply for scholarships offered by the University of Maine Pulp & Paper Foundation and the College of Engineering.

RESEARCH

Undergraduates have the opportunity to work with UMaine chemical engineering faculty, for academic credit and/or for pay. Projects have included development of biofuels and their bioconversion technologies, chemical compounds for detection and imaging of cancer, model cellular membranes for the study of membrane protein interactions, molecular biosensors for detecting pathogens and toxins, improved tissue-implant compatibility, and quality assurance in food products.

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
Chemical Engineering

Master of Science in
Chemical Engineering

Ph.D. in
Chemical Engineering

UMaine students prepare for the Chem-E-Car Competition, a program of the American Institute of Chemical Engineers (AIChE), that uses innovative fuels and materials to create and power a shoebox-size car.

ASSOCIATED STUDENT ORGANIZATIONS

Students are encouraged to participate in student chapters of professional societies including the American Institute of Chemical Engineers (AIChE), the Technical Association of the Pulp and Paper Industry (TAPPI/PIMA), the Society of Women Engineers (SWE), and the National Society of Black Engineers (NSBE). Some students have also worked on international service projects through the student chapter of Engineers Without Borders.

NEBHE PROGRAM

Applicants to this program who reside in Vermont are eligible for reduced tuition (in-state plus 50 percent) under the New England Regional Student Program, administered through the New England Board of Higher Education online at nebhe.org.

HOW DO I APPLY?

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

Accredited ABET Engineering Accreditation Commission
ABET.org

ENGINEERING