

# CHEMICAL ENGINEERING (M.ENG.)

<https://ceps.unh.edu/chemical-engineering/program/meng/chemical-engineering>

## Description

Earning a master's degree can be the key to unlocking your career potential or entering the world of entrepreneurship. In fact, earning an advanced degree in chemical engineering can translate into more than \$15,000 annually in salary compared to those with an undergraduate degree alone. UNH's M.Eng in chemical engineering will provide you with advanced training and experience in one of the many areas, including bioengineering, electrochemical engineering, advanced materials, reaction and energy engineering, as well as environmental engineering. The master's degree program concludes with an engineering project, often with an industrial sponsor.

## M.Eng. Admission Requirements

An applicant to the master of engineering program will have completed a baccalaureate degree in chemical engineering. Students with good undergraduate records but with deficiencies in certain areas may be admitted on condition that they complete specified courses without credit to make up for their deficiencies. Applicants must submit current scores (within five years) from the general test of the Graduate Record Examination. International students are required to submit TOEFL test scores. IELTS scores are accepted on a case-by-case basis, and students must have a minimum score of 6.5.

## Requirements

### Master of Engineering Degree Requirements

A master of engineering degree is a professional degree for chemical engineers. A minimum of **30 credits**, which must include:

Code	Title	Credits
<b>Required Courses</b>		
CHE 900	Seminar <sup>1</sup>	2
CHE 923	Advanced Chemical Engineering Thermodynamics	3
CHE 932	Advanced Chemical Engineering Kinetics	3
CHE 940	Advanced Transport Phenomena	3
<b>Electives</b>		
Select 19 credits of course work <sup>2,3</sup>		19
CHE 898	Chemical Engineering Project	3-6

<sup>1</sup> Students should register for CHE 900 for 1 credit each in their first two semesters and CHE 900 for 0 credits each additional semester until their degree is granted.

<sup>2</sup> Can be made up of electives offered by the department or college. In addition, courses taken within the UNH School of Law, College of Life Sciences and Agriculture, and the Paul College of Business and Economics can apply with approval. Electives must be assessed with a letter grade and cannot be pass/fail. Students take electives after consulting with their advisers. Can be made up of electives offered by the department or college. In addition, courses taken within the UNH School of Law, College of Life Sciences and Agriculture, and the Paul

College of Business and Economics can apply with approval. Electives must be assessed with a letter grade and cannot be pass/fail. Students take electives after consulting with their advisers. Students who don't register for CHE 898 Chemical Engineering Project must take at least one elective course, which requires the student to take additional work and the completion of scholar report, paper, or essay to fulfill the capstone experience requirement for a Master's degree. This scholar report, paper, or essay must be submitted to the course instructor, Chair of the department, and graduate coordinator for their approval.

<sup>3</sup> For Accelerated MEng students who have been enrolled in the UNH Chemical Engineering Department undergraduate programs, no more than two 800- or 900-level courses taken during their senior year can be counted toward their MEng degree requirement.

## Student Learning Outcomes

- The ability to apply knowledge of mathematics, science and engineering.
- The ability to design and conduct experiments safely, as well as to analyze and interpret data.
- The ability to identify, formulate and solve chemical engineering problems.
- The ability to design a process that meets desired specifications with consideration of environmental, safety, economic and ethical criteria.
- An appreciation of contemporary issues relevant to chemical engineering.
- Completed the UNH general education/Discovery program and obtained a broad education useful to understand the impact of engineering solutions in a global and societal context.
- The ability to use computers effectively for engineering practice.
- An appreciation of professional and ethical responsibility.
- The ability to communicate effectively.
- Skills to search for information in the library and on the internet.
- These skills will be used in their pursuit of lifelong learning.
- The capacity of function and work effectively alone and in a team environment.