

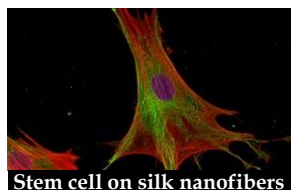
DEGREES OFFERED

The Department of Chemical Engineering offers the following graduate degrees in Chemical Engineering:

- Doctor of Philosophy (PhD)
- Masters of Science (MS)
- Masters of Engineering (MEng)

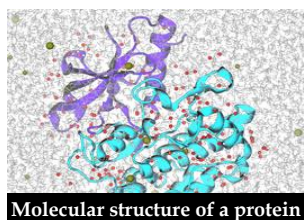
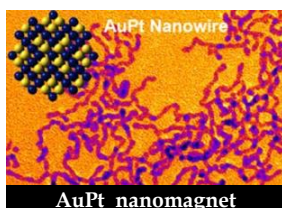
RESEARCH AREAS

The department has an active research program in the following areas:



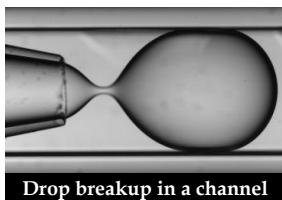
Biomaterials
Tissue Engineering
Biomedical Engineering

Chemical & Biosensors
Electrocatalysis
Electrochemistry

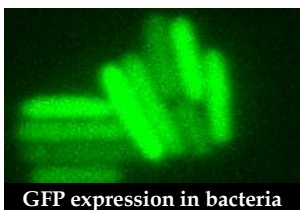


Biophysics
Modeling & Simulation

Fluid Dynamics
Microfluidics



Synthetic Biology
Biochemical Engineering



University of New Hampshire

The University of New Hampshire is a major research institution, providing high quality, comprehensive undergraduate and graduate programs of distinction. The University is located in Durham, NH on a 188-acre campus, 60 miles north of Boston, 8 miles from the Atlantic coast, and is convenient to New Hampshire's lakes and mountains. There is a student enrollment of 13,000 students with a full time faculty of over 600 offering 90 undergraduate and more than 70 graduate programs.



CONTACT US

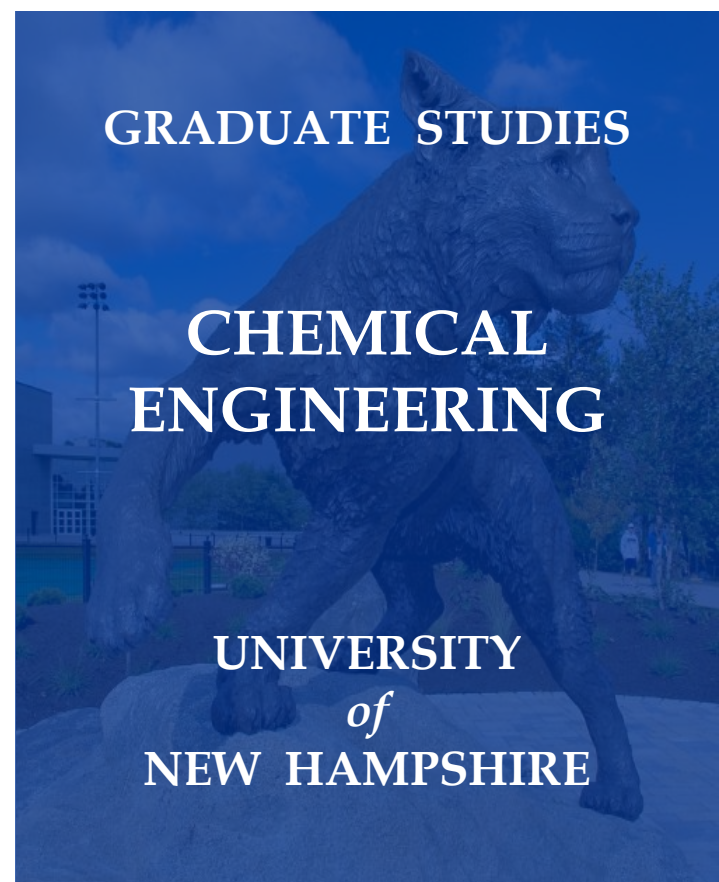
Department of Chemical Engineering
University of New Hampshire
Kingsbury Hall, W301
Durham, NH 03824-3591

Tel: 603-862-3654

Fax: 603-862-3747

Email: CHE.Dept@unh.edu

Web: <http://ceps.unh.edu/chemical-engineering>



DEPARTMENT SUMMARY

The Department of Chemical Engineering at the University of New Hampshire offers B.S., M.Eng., M.S., and Ph.D. degrees in Chemical Engineering. Our undergraduate enrollment is approximately 225 students and graduate enrollment is approximately 20 students. All of our doctoral students are fully supported by teaching or research assistantships. All the courses in the department are taught by full-time faculty. Our chemical engineering graduates are employed in biotechnology, pharmaceuticals, microelectronics, and fuel cell industries. They also attain research or academic appointments at institutions such as Virginia Commonwealth University, National Library of Medicine, and CFD Research Corporation

RESEARCH FACILITIES

The chemical engineering department has recently moved to a new building which provides state-of-the-art research facilities in

- Biocatalysis and Biofuels
- Biomaterials
- Biomedical Engineering
- Biosensors
- Computational Biophysics
- Electrochemical Engineering
- Energy and Environment
- Fuel Cells and Nanomaterials
- Interfacial Flows
- Synthetic Biology



FACULTY

Dale P. Barkey

Electrodeposition, Micro- and Nano-Fabrication, Anodizing

Russell T. Carr

Non-linear Dynamics, Blood Rheology, Microfluidics

Nivedita R. Gupta

Computational Fluid Dynamics, Encapsulation, Interfacial Flows

Jeffrey M. Halpern

Diagnostic Sensors, Surface Chemistry, Electrochemistry, Sensor Development

Kyung Jae Jeong

Biomaterials and Surface Chemistry for Tissue Engineering

Young Jo Kim

Edible Electronics, Material Science

Xiaowei Teng

Nanomaterials, Fuel Cells, Supercapacitors, Reaction Engineering

Harish Vashisth

Computational Biophysics, Biomolecular Simulations of Proteins and Nucleic Acids

P. T. Vasudevan

Biocatalysis, Biofuels, Bioengineering

Kang Wu

Synthetic Biology, Protein Secretion, Biofuels, Bioremediation

Nan Yi

Environmental Catalysis, C₁ Chemistry for Energy Applications

DEGREE REQUIREMENTS

An MS in chemical engineering represents in-depth study of the core concepts in chemical engineering and experience with supervised research activities. Earning a PhD in chemical engineering requires making an original contribution to the field. This takes perseverance, originality, and academic independence. For detailed admission and degree requirements visit <http://ceps.unh.edu/chemical-engineering>

Doctor of Philosophy (PhD)

Each doctoral degree candidate must complete 39 course credit hours or 11 courses (whichever comes first) beyond the Bachelor's degree with 5 of

DEGREE REQUIREMENTS

those courses specified as core at the 900 level, including Advanced Fluid Mechanics, Heat Transfer, Diffusive Mass Transfer, Advanced Chemical Engg Thermodynamics, and Advanced Chemical Engg Kinetics. The remaining courses (totaling 24 credits) may be at the 800- or 900-level. The candidate must successfully complete a written qualifying examination in each of the core courses. The candidate advances to candidacy upon writing and defending a research proposal on a topic not related to their thesis in an oral examination before a committee. There is no language requirement.



Masters of Science (MS)

A minimum of 30 credits, which must include Advanced Fluid Mechanics, Heat Transfer, Diffusive Mass Transfer, Advanced Chemical Engg Thermodynamics, and Advanced Chemical Engg Kinetics, is required for the Master of Science in Chemical Engineering. These five core courses constitute 15 credits. The remaining 9 course credits can be made up of electives offered by the department or by the college. A thesis is required, for which 6 credits will be allowed.

Masters of Engineering (MEng)

A Masters of Engineering degree is a professional degree for Chemical Engineers. A minimum of 30 credits, which must include Advanced Fluid Mechanics, Heat Transfer, Diffusive Mass Transfer, Advanced Chemical Engg Thermodynamics, and Advanced Chemical Engg Kinetics, is required for the Master of Engineering degree. An additional 12 credits of course work is required. The remaining three credits will be for faculty supervised projects.