CHEMICAL ENGINEERING (MS)

Study and research programs leading to the degree of Master of Science (M.S) in chemical engineering are offered. Areas of specialization include: environmental engineering, biochemical engineering, polymer science and engineering, process simulation, catalysis and reaction engineering, nanomaterials and nanotechnology, microelectronics, and membrane technology.

Location

- Storrs Campus

Modality

- In Person

Requirements

Requirements for the Plan A M.S. Degree

Students must complete 30 credits of coursework and research, composed of three core courses: CHEG 5301 Chemical Engineering Thermodynamics I, CHEG 5315 Transfer Operations I, and CHEG 5321 Reaction Kinetics I, as well as nine credits of GRAD 5950 Master's Thesis Research, and 12 additional credits of advanced coursework and training. Up to six credits of graduate level coursework can be transferred, subject to approval of the graduate committee. The student must assemble a thesis committee and complete a plan of study. There is a publication/ product requirement. Students should register for the seminar series each semester it is offered.

Requirements for the Plan B M.S. Degree

Students must complete 30 coursework credits, composed of three core courses in thermodynamics, kinetics and mass transport and three credits of an independent study project with one of our faculty members. Since Plan B does not included a thesis, a Plan B student must defend their project orally. There is no language requirement.

Learning Objectives

1. Knowledge: Demonstrate appropriate breadth and depth of disciplinary knowledge and comprehension of the major topics, theories, and issues of the discipline.
2. Applied skills: Uses, disaggregates, reformulates and/or adapts principal ideas, techniques or methods of the field of study ethically, professionally, and based on best practices of the discipline.
3. Communication: Communicate proficiently and effectively to a specialist or non-specialist audience, verbally and in writing, a coherent argument or explanation summarizing aspects of the discipline.