

Emphasis - Chemical Engineering

- [M.S. in Engineering Science](#)
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M.S. in Engineering Science Description

The M.S. in engineering science is offered in a number of emphasis areas: aeroacoustics, chemical engineering, civil engineering, computational hydroscience, computer science, electrical engineering, electromagnetics, environmental engineering, geology, geological engineering, hydrology, mechanical engineering, material science and engineering, and telecommunications.

Minimum Total Credit Hours: 30

Course Requirements

A student must complete the requirements for an emphasis area. For most emphasis areas, the degree may be completed as either a thesis option (30-hour program, to include 6 hours of thesis) or nonthesis option (30-hour program, to include a minimum of 3 hours of a design-oriented project course).

Emphasis - Chemical Engineering Description

A degree of M.S. in engineering science with an emphasis in chemical engineering prepares graduates to apply chemical engineering science (transport phenomena, thermodynamics, chemical reaction engineering, and applied mathematics). It enables them to independently execute complex projects and pursue successful careers in engineering, medicine, law, professional education, public policy, the military, management, and sales.

Course Requirements

The M.S. with emphasis in chemical engineering requires the following courses: Advanced Transport Phenomena I, II (Ch E 560, 561); Thermodynamics of Chemical Systems (Engr 665); and Chemical Reaction and Reactor Analysis I (Engr 669); 6 hours of thesis. The student also must take three semesters (1 hour each) of the Research Seminar (Ch E 515).

Other Academic Requirements

A candidate must prepare and orally defend a thesis.

