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 engineering, 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 a:

- Thesis option (30-hour program, to include 6 hours of thesis),
- Nonthesis option (30- hour program, to include a minimum of 3 hours of a design-oriented project course), or
- Coursework option (30-hour program, to include a final oral examination in front of a committee, but no written report)

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. in engineering science with an emphasis in chemical engineering requires a minimum of 30 hours of graduate credit. The specific coursework depends on the M.S. option pursued by the student. All M.S. students should be able to demonstrate proficiency in transport phenomena,thermodynamics, and chemical reaction analysis. This is accomplished by completion and approval of the chemical engineering proficiency form prior to graduation.

Coursework Option

All 30 hours come from graded 500-/600- level coursework agreed upon by the student and his or her committee, but must include at least two Ch E 510+ courses (6 credit hours).

Students whose undergraduate degree is not in chemical engineering may be required to take additional coursework beyond the 30-hour requirement at the discretion of his or her committee.

Nonthesis Option

This option requires at least 27 hours of graded 500-/600-level coursework agreed upon by the student and his or her committee including at least two Ch E 510+ courses (6 credit hours). In addition, students must complete no less than 3 hours of project (Engr 693 and Engr 694) credit.

Thesis Option

Students must take 21 hours of graded 500-/600- level coursework, plus 3 hours of Research Seminar (Ch E 515). The coursework must include no less than 6 hours selected by the student's committee from any Ch E course 510 or higher. The remaining 15 hours of coursework are agreed upon by the student and his or her committee. All students in the M.S. thesis option must take or have taken at least one course in each of the following topics: reactors design, thermodynamics and transport as graduate or undergraduate students. In addition, students must complete no less than 6 hours of thesis (Engr 697) credit.

Other Academic Requirements

Every candidate for a master’s degree must pass a final written or oral examination.

The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master’s, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.