

## Emphasis - Chemical Engineering

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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.

#### Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change rules for registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time.

### M.S. in Engineering Science

| REQUIREMENT                 | HOURS | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pass oral exam              |       | Student must pass a final oral examination.                                                                                                                                                                                                                                                                                                                                                                                                   |
| Select an emphasis          |       | Student must enroll in one of the MS in Engineering Science emphasis areas: aeroacoustics, chemical engineering, civil engineering, computational hydroscience and engineering, computer science, electrical engineering, electromagnetics, environmental engineering, geological engineering, geology, hydrology, materials science and engineering, mechanical engineering, or telecommunication.                                           |
| GPA requirements            |       | A cumulative average of not less than 3.0 (B) must be achieved in all graduate work taken.                                                                                                                                                                                                                                                                                                                                                    |
| Engineering Dean's approval |       | This Degree Audit program is an advising tool only. The student must still apply for a degree by submitting their degree application to <a href="mailto:engineer@olemiss.edu">engineer@olemiss.edu</a> . The dean's office will make the final certification that the courses listed on the application qualify the student for graduation. The Dean's Office will also determine if other university requirements (GPA, etc.) have been met. |

### Emphasis - Chemical Engineering

| REQUIREMENT                      | HOURS | DESCRIPTION                                                                                                          |
|----------------------------------|-------|----------------------------------------------------------------------------------------------------------------------|
| <a href="#">Ch E 515</a>         | 3     | Complete at least three semesters (1 hour each) of the Research Seminar ( <a href="#">Ch E 515</a> ).                |
| <a href="#">Ch E 560</a> - C min | 3     | Complete <a href="#">Ch E 560</a> with a grade of C or better.                                                       |
| <a href="#">Ch E 561</a> - C min | 3     | Complete <a href="#">Ch E 561</a> with a grade of C or better.                                                       |
| <a href="#">Engr 665</a> - C min | 3     | Complete <a href="#">Engr 665</a> with a grade of C or better.                                                       |
| <a href="#">Engr 669</a> - C min | 3     | Complete <a href="#">Engr 669</a> with a grade of C or better.                                                       |
| <a href="#">Engr 697</a>         | 6     | Complete at least 6 hours of thesis credit ( <a href="#">Engr 697</a> ).                                             |
| Elective courses                 | 9     | Student must complete at least 9 hours of elective courses. Each course must be approved by the student's GPC/Chair. |
| Oral defense                     |       | Student must orally defend his/her thesis.                                                                           |



| REQUIREMENT   | HOURS | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Submit thesis |       | The student must submit a thesis to his/her GPC/Chair. Regulations governing the style, format, paper, abstract and other matters may be found in "A Manual of Thesis and Dissertations" available in the Graduate School Office. After the oral examination has been accepted, the student must present to the Graduate School two unbound copies of the thesis. A copy of the abstract and the thesis binding fee receipt must accompany the copies of the thesis. |

