

## Emphasis - Chemical Engineering

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### Ph.D. in Engineering Science Description

The Ph.D. 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, and material science and engineering.

**Minimum Total Credit Hours: 66**

#### Course Requirements

A student must complete the requirements for one of the emphasis areas. All doctoral programs require completion of a comprehensive examination, dissertation prospectus, and a dissertation. See the department chair or adviser for specific requirements for an emphasis area.

### Emphasis - Chemical Engineering Description

A Ph.D. in engineering science with 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. It further equips them with the experience to conduct research —generating and disseminating new knowledge.

#### Course Requirements

The Ph.D. with an emphasis in chemical engineering requires no specific courses beyond those specified for the M.S. degree. A total of 90 credit hours are required, and specific course work is stipulated by the candidate's advisory committee. Each student is required to conduct a semester-long investigation of a research or design problem in an area other than his or her dissertation area.

#### Other Academic Requirements

Before undertaking the dissertation, the student must pass three three- hour written comprehensives and an oral examination.

#### 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.

### Ph.D. in Engineering Science

| REQUIREMENT                 | HOURS | DESCRIPTION  |
|-----------------------------|-------|--|
| <a href="#">Engr 797</a>    | 18    | Complete at least 18 hours of dissertation credit ( <a href="#">Engr 797</a> ).  |
| Dissertation prospectus     |       | Student must submit and defend a dissertation prospectus.  |
| Oral defense                |       | Every candidate for the Ph.D. degree must successfully pass a final oral examination (defense of dissertation) administered by the student's dissertation committee and scheduled by the Graduate School.  |
| Select an emphasis          |       | Student must enroll in one of the PhD 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, or mechanical engineering.  |
| Submit Dissertation         |       | Student must submit a dissertation to his/her GPC/Chair. The dissertation must conform to the regulations governing style set forth in "A Manual of Thesis and Dissertations Preparations", available in the Graduate School Office. Two copies of the dissertation must be presented to the Graduate School after the final examination for the doctorate has been accepted and before the beginning of the regular examination period for the semester in which the candidate plans to graduate. |
| 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  |
|--------------------|-------|--|
| 90 hrs course work | 90    | Student must complete at least 90 semester hours of course work including a semester-long investigation of a research or design problem in an area other than his or her dissertation area. All courses must be approved by the student's GPC/Chair. |
| Comprehensive exam |       | Student must pass three three-hour written comprehensives.   |



| REQUIREMENT   | HOURS | DESCRIPTION   |
|---------------|-------|---|
| Investigation |       | Student must complete a semester-long investigation of a research or design problem in an area other than his or her dissertation area. |

