# Emphasis - Civil Engineering


- Ph.D. in Engineering Science
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- Degree Requirements


# 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 - Civil Engineering

## Description

A Ph.D. in engineering science with emphasis in civil engineering prepares a student with advanced technical knowledge and communication skills for pursuing a career in engineering research and development, education, industry, or public service. The program offers a choice of several concentration areas: structures, geotechnical engineering, construction materials, water resource engineering, environmental engineering, transportation systems, infrastructure asset management, and earthquake and disaster response management.

## Goals/Mission Statement

The program will provide high quality graduate education in a range of civil engineering disciplines and will produce research and scholarship that is nationally recognized and supports the economic development of the state, the region, and the nation.

## Course Requirements

The Ph.D. degree with emphasis in civil engineering requires 24 hours of course work beyond the M.S. degree or 48 hours beyond the B.S. degree, and 18 hours of dissertation credit. At least two courses need to be in mathematics (e.g., Engr 591-Engineering Analysis I, Engr 592-Engineering Analysis II, Math 555-Advanced Calculus I, Math 556-Advanced Calculus II, Math 575-Mathematical Statistics I), one course in numerical method (e.g., Engr 590-Finite Element Analysis), and one course in mechanics (e.g., Engr 617-Continuum Mechanics). Other graduate course work must be approved by the student's advisory committee.

## Other Academic Requirements

A qualifying examination, comprehensive examination, dissertation prospectus, and dissertation defense are needed. Before admission to candidacy, the student must pass written and oral comprehensive exams.

## 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 |
|---|---|---|
| Engr 797 | 18 | Complete at least 18 hours of dissertation credit (Engr 797). |
| 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 engineer@olemiss.edu. 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. |

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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.

| REQUIREMENT | HOURS | DESCRIPTION |
|---|---|---|
| 48 hrs course work | 48 | Student must complete at least 48 hours of course work beyond the B.S. degree or 24 hours beyond the M.S. degree. Course work must be approved by the student's GPC/Chair and include 2 courses in mathematics, a course in numerical method, and a course in mechanics. |
| Comprehensive exam | | Student must pass written and oral comprehensive examinations. |
| Qualifying exam | | Student must pass a qualifying examination. |

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