Ph.D. in Engineering Science

Overview
Degree Requirements

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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.

Emphasis - Mechanical Engineering

REQUIREMENT	HOURS	DESCRIPTION
12 hrs research		Student must complete at least 12 hours of research.
30 hrs course work	30	Student must complete at least 30 hours of course work as specified by the student's advisory committee.
Comprehensive exam		Student must pass comprehensive exams.

Emphasis - Geology

REQUIREMENT	HOURS	DESCRIPTION
54 hrs course work	54	Student must complete at least 54 hours of course work beyond the bachelor's degree as approved by the student's GPC/Chair.
Comprehensive exam		Student must pass written and oral comphrehensive exams.

Emphasis - Geological Engineering

REQUIREMENT	HOURS	DESCRIPTION
54 hrs course work	54	Student must complete at least 54 hours of course work beyond the bachelor's degree. All courses must be approved by the student's GPC/Chair.
Comprehensive exam		Student must pass written and oral comphrehensive exams.

Emphasis - Materials Science and Engr.

REQUIREMENT	HOURS	DESCRIPTION
12 hrs research		Student must complete at least 12 hours of research.
30 hrs course work	30	Student must complete at least 30 semester hours of course work as specified by the student's advisory committee.
Comprehensive exam		Student must pass written and oral comprehensive examinations.
Qualifying exam		Student must pass written and oral qualifying examinations.

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Emphasis - Aeroacoustics

REQUIREMENT	HOURS	DESCRIPTION
66 hrs course work	66	Student must complete at least 66 semester hours of graduate credit beyond the baccalaureate degree. All courses must be approved by the student's GPC/Chair.
Comprehensive exam		Student must pass a comprehensive written examination.

Emphasis - Civil Engineering

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.

Emphasis - Computer Science

REQUIREMENT	HOURS	DESCRIPTION
54 hrs course work	54	Student must complete at least 54 hours of course work beyond the bachelor's degree including 18 hours in computer science at the 600-level. No course numbered lower than Csci 510 will be counted. The student may also count up to three nonregular courses (9 hours), such as independent study, towards the degree.
Comprehensive exam		Student must pass four comprehensive examinations: one each in systems, languages, and algorithms. The must also pass one exam selected from the following: artificial intelligence, graphics and visualization, data managaement and information retrieval, software engineering, or another area approved by petition to the graduate committee.

Emphasis - Electrical Engineering

REQUIREMENT	HOURS	DESCRIPTION
Comprehensive exam		Student must pass a written comprehensive examination.
48 hrs course work	48	Student must complete at least 48 hours of course work including 12 hours in an approved minor area, 2 hours in seminar, and no more than 6 hours of research credit outside the dissertation. All courses must be approved by the student's GPC/Chair.

Emphasis - EE (Electromagnetics)

REQUIREMENT	HOURS	DESCRIPTION
Engr 619 - C min	3	Student must complete Engr 619 with a grade of C or better.
Engr 621 - C min	3	Student must complete Engr 621 with a grade of C or better.
Engr 623 - C min	3	Student must complete Engr 623 with a grade of C or better.
Engr 625 - C min	3	Complete Engr 625 with a grade of C or better.
Engr 626 - C min	3	Student must complete Engr 626 with a grade of C or better.
Engr 695 - C min	1	Student must complete Engr 695 with a grade of C or better.
26 hrs course work	26	Student must complete an additional 26 hours of course work chosen from the following: Engr 590, Engr 593, Engr 622, Engr 624, Engr 625, Engr 627, Engr 628, Engr 655, Engr 687, Engr 691, Engr 693 (no more than 2 semester hours), Engr 699, Engr 729, or other courses. All courses must be approved by the student's GPC/Chair.
Comprehensive exam		Student must pass a written comprehensive examination.
Minor area	12	Student must complete at least 12 semester hours of graded courses in a minor area (mathematics, physics, or another appropriate field). All courses must be approved by the student's GPC/Chair.

Emphasis - Computational Hydroscience

REQUIREMENT	HOURS	DESCRIPTION
12 hrs research		Student must complete at least 12 hours of research.
48 hrs course work	48	Student must complete at least 48 hours of course work approved by the student's GPC/Chair.
Comprehensive exam		Student must pass written and oral comprehensive exams.
Research project		Student must complete his/her assigned research project.
Research seminars		Student must participate in research seminars.

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REQUIREMENT	HOURS	DESCRIPTION
Scholarly papers		Student must publish at least two refereed papers (preferably one of them to be published in a professional journal.)

Emphasis - Environmental Engineering

REQUIREMENT	HOURS	DESCRIPTION
48 hrs course work	48	Student must complete at least 48 hours of course work beyond the bachelor's degree or 24 hours beyond a master's degree including 2 courses in mathematics, a course in numerical methods, and a course in mechanics. All courses must approved by the student's GPC/Chair.
Comprehensive exam		Student must pass written and oral comprehensive exams.
Qualifying exam		Student must pass a qualifying examination.

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

Emphasis - Hydrology

REQUIREMENT	HOURS	DESCRIPTION
Engr 636 - C min	3	Complete Engr 636 with a grade of C or better.
Engr 645 - C min	3	Complete Engr 645 with a grade of C or better.
G E 503 - C min	3	Complete G E 503 with a grade of C or better.
Geol 505 - C min	4	Complete Geol 505 with a grade of C or better.
Add'l course work	35	Students must complete an additional 35 hours of course work approved by the student's GPC/Chair. Up to 3 hours of Engr 695 (seminar) may be used as part of the required hours.
Comprehensive exam		Student must pass written and oral comprehensive exams.

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