

## Emphasis - Hydrology

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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 - Hydrology Description

A Ph.D. in engineering science with emphasis in hydrology prepares a student with advanced technical knowledge and communication skills for pursuing a career in industry, research and development, or public/government service. Students entering the program come from a variety of engineering and nonengineering disciplines such as geology and civil engineering.

#### Course Requirements

For the Ph.D. with emphasis in hydrology, a student must complete 48 semester hours of course work beyond the bachelor's degree plus 18 hours of dissertation. The 48 hours of course work must include 13 hours of required courses [Hydrogeology (Geol 505), Environmental Geochemistry (G E 503), Groundwater Mechanics (Engr 636), and Contaminant Transport (Engr 645)], and 6 hours from an approved list of electives (G E 518, C E 541, C E 542, C E 543, Ch E 545, Geol 615, Engr 537, Engr 616, Engr 637, Engr 648). Remaining credit hours will be fulfilled with courses approved by the student's committee. Up to 3 hours of Engr 695 (seminar) may be used as part of the required hours provided that the seminar schedule includes critiqued presentations by the enrolled students.

#### Other Academic Requirements

Students must pass a written and oral comprehensive exam before completing the dissertation research.

#### 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.  |

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| REQUIREMENT                      | HOURS | DESCRIPTION  |
|----------------------------------|-------|--|
| <a href="#">Engr 636</a> - C min | 3     | Complete <a href="#">Engr 636</a> with a grade of C or better. |
| <a href="#">Engr 645</a> - C min | 3     | Complete <a href="#">Engr 645</a> with a grade of C or better. |



| REQUIREMENT                      | HOURS | DESCRIPTION  |
|----------------------------------|-------|--|
| <a href="#">G E 503</a> - C min  | 3     | Complete <a href="#">G E 503</a> with a grade of C or better.  |
| <a href="#">Geol 505</a> - C min | 4     | Complete <a href="#">Geol 505</a> 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 <a href="#">Engr 695</a> (seminar) may be used as part of the required hours. |
| Comprehensive exam               |       | Student must pass written and oral comprehensive exams.  |

