

## Emphasis - Hydrology

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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 - Hydrology Description

A M.S. 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, public service, or for doctoral work.

### Course Requirements

For the M.S. with emphasis in hydrology, a student must complete 24 semester hours of course work plus 6 hours of thesis. The 24 hours of course work includes 13 hours of required courses [Hydrogeology (Geol 505), Environmental Geochemistry (G E 503), Groundwater Mechanics (Engr 636), and Contaminant Transport (Engr 645)], 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), and an additional 5 hours as 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

The student 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. |

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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.                                                                                                                                                                                                                                                                                                                                                          |
| <a href="#">Engr 697</a>         | 6     | Complete at least 6 hours of thesis credit ( <a href="#">Engr 697</a> ).                                                                                                                                                                                                                                                                                                                                                |
| <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 courses                    | 5     | Student must complete an additional 5 hours as approved by the student's committee.                                                                                                                                                                                                                                                                                                                                     |
| Elective courses                 | 6     | Student must complete at least 6 hours of electives chosen from the following: <a href="#">Geol 518</a> , <a href="#">C E 541</a> , <a href="#">C E 542</a> , <a href="#">C E 543</a> , <a href="#">Ch E 545</a> , <a href="#">Geol 615</a> , <a href="#">Engr 537</a> , <a href="#">Engr 616</a> , <a href="#">Engr 637</a> , or <a href="#">Engr 648</a> . Each course must be completed with a grade of C or better. |



| REQUIREMENT   | HOURS | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oral defense  |       | Student must orally defend his/her thesis.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Submit thesis |       | 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. |

