

## [Emphasis - Computational Hydroscience](#)

- [M.S. in Engineering Science](#)
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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 a:

- Thesis option (30-hour program, to include 6 hours of thesis),
- Nonthesis option (30-hour program, to include a minimum of 3 hours of a design-oriented project course), or
- Coursework option (30-hour program, to include a final oral examination in front of a committee, but no written report)

### **Emphasis - Computational Hydroscience** **Description**

A M.S. in engineering science with an emphasis in computational hydroscience and engineering prepares a student with advanced technical knowledge and communication skills for pursuing a career in industry, engineering research and development, public service, or for doctoral work.

#### **Course Requirements**

The M.S. with emphasis in computational hydroscience and engineering can be completed as either a thesis or nonthesis option.

The thesis option entails 24 credit hours of course work (plus at least 6 thesis hours), including 12 hours of core courses in numerical methods, fluid dynamics, transport phenomena, and hydrosociences, and 12 hours of approved electives.

The nonthesis option includes an additional 3 hours of approved electives, as well as completion of a research project and report. Both options require the publication of a technical paper in either a journal or a conference proceeding; attendance and presentation at research seminars; and passing the comprehensive oral exam.

#### **Other Academic Requirements**

For either option, a candidate must pass a final oral examination.

