

# Emphasis - Computational Hydroscience M.S. in Engineering Science

- Emphasis Computational Hydroscience

# 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 - 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 hydrosciences, 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.

