Civil and Environmental Engineering

Chair and Professor: Savage

Professors: Ebrahimpour, Leung, Sato

Associate Professor: Mashal

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Affiliate/Graduate Allied Faculty: Mondal

Program Description	Type	Degree
Doctor of Philosophy in Engineering and Applied Science (CEE) (https://coursecat.isu.edu/graduate/scienceengineering/civilandenvironmentalengineering/phdeascivilengineering/)	Degree	Ph.D.
Master of Science in Civil Engineering, M.S. (https://coursecat.isu.edu/graduate/scienceengineering/civilandenvironmentalengineering/mscivilengineering/)	Degree	M.S.
Master of Science in Environmental Engineering, M.S. (https://coursecat.isu.edu/graduate/scienceengineering/civilandenvironmentalengineering/environmentalengineering/)	Degree	M.S.
Master of Science in Environmental Science and Management, M.S. (https://coursecat.isu.edu/graduate/scienceengineering/civilandenvironmentalengineering/msenvironmentalscience/)	Degree	M.S.
Accelerated Degree BS/MS in Civil Engineering (https://coursecat.isu.edu/graduate/scienceengineering/civilandenvironmentalengineering/bsmsce/)	Degree	BS/MS

Admission Requirements

The student must meet all criteria for admission to the Graduate School.

General Degree Requirements

With the assistance of the Civil Engineering faculty, the student shall select an initial advisor during the first semester of residence to help in planning a program of studies and research. The student must also complete a Plan of Study and form a complete advisory committee by the time six credits of course work have been completed.

30 to 33 credit hours are required to complete the M.S. degree (at least 50% of the credits should be at 6000 level). Approximately half of the credits are engineering and technical electives, subject to the approval of the student's advisory committee. The Thesis or Special Project should consist of study and research that complements the course work selected. Each student may also be required to complete two semesters of seminar, an important component in developing research and communication skills.

Doctor of Philosophy in Engineering and Applied Science

A doctoral program in Engineering and Applied Science, administered through the College of Science and Engineering, is available to Civil and Environmental Engineering students. The complete program description is in the College of Science & Engineering's Engineering and Applied Science section of the Graduate Catalog. the students in the Department of Civil and Environmental Engineering. The Department of Civil and Environmental Engineering offers the following concentration options: Civil Engineering, Environmental Engineering, and Environmental Science & Management.

Master of Science in Civil Engineering

The master's program in civil engineering is designed to provide advanced study, both theoretically and experimentally, in structures, mechanics, finite element methods, water resources, and geotechnics. This program prepares the student for advanced placement in the civil engineering field in industry, research, or development areas. Additionally, this program provides a suitable base for entrance into a doctoral program in a field related to civil engineering. The program is offered both at the Pocatello and the Idaho Falls campuses, primarily through the use of telecommunications/distance learning, which includes partial in-class instruction.

Goals

- Enhance the knowledge of graduates in the advanced concepts in civil engineering fields such as structures, mechanics, finite element methods, geotechnics, and water resources.
- Increase the ability of graduates to synthesize and apply these advanced concepts to develop realistic designs in fields related to civil engineering, solve identified problems, and design strategies for implementing them safely, ethically, and effectively.
- Enhance the ability of graduates to effectively communicate these concepts both in oral and written formats.

Master of Science in Environmental Engineering

This program is designed to provide the student with advanced technical training in environmental engineering, with an emphasis on hazardous waste treatment and control. The program fills a need in industry and government for professionals with a broad understanding of the technical aspects of environmental issues. Students enrolled in the program are generally expected to have a sufficient background in mathematics and chemistry (a minimum of one year of general chemistry). Students with an insufficient background in engineering and math are required to make up the deficiencies according to the advice of their advisory committee (usually including ME 3307, CE 3332, CE 3341) (Note: For lists of approved courses and elective courses, students should see an advisor. The approved and elective courses may be changed with the approval of the advisor.)

Goals

- Enhance the knowledge of graduates in the advanced concepts of environmental control and remediation, involving a significant fraction of the following: chemistry, water & wastewater quality, air quality, radioactive material handling and disposal, environmental laws and regulations, global environmental issues, and cost-benefit analyses.

- Increase the ability of graduates to synthesize and apply these advanced concepts to develop realistic environmental engineering designs and to solve identified problems, designing strategies for implementing them safely, ethically, and effectively.
- Enhance the ability of graduates to communicate these concepts effectively both in oral and written formats.

Master of Science in Environmental Science and Management

The Environmental Science and Management (ENSM) Program is an interdisciplinary program designed to allow students to combine courses in environmental engineering with related courses in an interdisciplinary area of emphasis. Interdisciplinary coursework may come from a combination of courses in the following emphasis areas: geosciences, biological sciences, chemistry, mathematics, physics, pharmaceutical sciences, political science, and business. Students may also choose environmental engineering as the academic emphasis, thus maintaining the entire program of study within the Department of Civil and Environmental Engineering. The ENSM program is jointly sponsored by the University of Idaho and some of the courses are cross-listed. Students must complete at least ten credits in an interdisciplinary discipline (academic emphasis) and satisfy all departmental and Graduate School requirements.

Civil Engineering Courses (https://coursecat.isu.edu/graduate/allcourses/ce/)

Environmental Engineering Courses (https://coursecat.isu.edu/graduate/allcourses/enve/)