Civil and Environmental Engineering

The Department of Civil and Environmental Engineering offers an ABET-accredited B.S. degree in civil engineering and M.S. and Ph.D. degrees in civil and environmental engineering. The B.S. degree in civil engineering may be accompanied by an option in environmental engineering, fluid systems engineering, or in construction engineering and management.

Civil engineers have been and still are the builders of our world, involved in the planning of our cities, communities, and larger regional areas. They are responsible for the conception, design, and construction of public works such as highways, streets, bridges, drinking water distribution systems, wastewater collection systems, dams, reservoirs, power production, navigation and recreation, as well as the buildings, theaters, stadiums, factories and airports in which we live, work, and play.

The environment has long been the province and concern of civil engineers. Thus, civil engineers are continuously responding to society’s ecological and environmental problems by joining with other engineers, as well as with physical, biological, chemical, and social scientists, to protect our natural resources and to create a sustainable physical and social environment for all people. Civil engineers are aware of the complexities of these problems and that they cannot merely focus on building and construction; they must understand the impact of engineering designs on society and the environment, and be prepared to play a vital role on interdisciplinary environmental teams.

The Department of Civil and Environmental Engineering offers a curriculum that provides a balanced program of technical and nontechnical courses to meet the needs of students interested in studying civil and environmental engineering. The curriculum includes basic courses in mathematics, chemistry, physics, biology, earth sciences, engineering sciences, as well as the fundamentals of civil engineering in the areas of structural engineering, geotechnical engineering, construction engineering and management, transportation engineering, land information and surveying, water resources engineering and environmental engineering. Students may then choose elective courses in multiple areas or specialize in one or more areas of interest. Also, the department cooperates with interdisciplinary programs at both the undergraduate and graduate levels, including business, environmental studies, water resources management, oceanography and limnology, land resources, environmental monitoring, geological engineering, and environmental chemistry and technology.

In view of the increasing demands of modern technology, the traditional undergraduate curriculum can only offer the fundamentals of civil and environmental engineering to the student. Qualified undergraduates are encouraged to pursue the civil and environmental engineering master’s degree program as a means of incorporating additional courses on engineering analysis, design, and synthesis into their academic studies. The undergraduate degree is also sufficiently broad to prepare students for advanced degrees in other fields such as law, medicine, public health, and business.

DEGREES/MAJORS/CERTIFICATES

- Civil Engineering, B.S. (http://guide.wisc.edu/undergraduate/engineering/civil-environmental-engineering/civil-engineering-bs)
- Geological Engineering, B.S. (http://guide.wisc.edu/undergraduate/engineering/civil-environmental-engineering/geological-engineering-bs)

PEOPLE

PROFESSORS

- Noyce (chair)
- Adams
- Bahia
- Cramer
- Hanna
- Harrington
- Likos
- McMahon
- Noguera
- Park
- Parra-Montesinos
- Ran
- Russell
- Schauer
- Wu

ASSOCIATE PROFESSORS

- Ahn
- Fratta
- Hurley
- Loheide
- Pincheira

ASSISTANT PROFESSORS

- Block
- Ginder-Vogel
- Hedegaard
- Hicks
- Prabhakar
- Remucal
- Sone
- Wright

RESOURCES AND SCHOLARSHIPS

FACILITIES

Facilities available include modern and fully equipped laboratories for instruction and research in the following areas:

- Environmental Engineering
- Fluid Mechanics
- Geoengineering
- Hydraulics
- Data Acquisition and Analysis
- Structures and Materials Testing
- Transportation Engineering