Civil and Environmental Engineering

Website (https://cee.northeastern.edu/)

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Overview

With a strategic focus in urban engineering and through a range of teaching and research strengths, anchored by several multidisciplinary, multi-institutional centers and programs, our academic programs are designed to prepare professionals to address the global, complex, and ever-evolving engineering challenges of our time by building on current department strengths and expanding into vital areas. We give our future master's and PhD graduates the opportunity to make real-world impact on and long-lasting contributions to the well-being and development of society.

Mission of the Department

Advancing innovative civil and environmental solutions for society and creating globally oriented engineering leaders by integrating experiential education and use-inspired interdisciplinary research.

Academic Programs

Within our graduate programs, students work alongside world-class faculty on advanced research and courses, developing a solid base for their careers. Three overarching themes are emphasized in our programs: environmental health, civil infrastructure security, and sustainable resource engineering. These themes are aligned with the department's premier strengths in simulation (both computational and experimental), smart sensing, data and network science, and urban informatics and are all reflected in the courses offered in our graduate programs.

MASTER OF SCIENCE DEGREE

The department offers five MS degree programs in the following areas: civil engineering (students can choose one out of six concentrations); environmental engineering; engineering and public policy; sustainable building systems; and climate science and engineering (in partnership with the Department of Marine and Environmental Science in the College of Science). Options for a master's thesis or report in place of coursework are available. All civil and environmental engineering master's programs are available on a full-time or part-time basis. For a full list of the department's academic program offerings, please refer to the Programs (p. 1) tab.

DOCTOR OF PHILOSOPHY DEGREE

The department offers the following PhD degrees: PhD in Civil and Environmental Engineering and Interdisciplinary PhD. The doctoral program is designed to be flexible with respect to subject area and may be adapted to any subject area in civil and environmental engineering, including interdisciplinary options within the department or across departments or colleges.

The PhD is awarded to students who demonstrate high academic achievement and research competence in the selected field. Students must pursue the PhD program on a basis consistent with the residence requirements for the degree (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-environmental-engineering-phd/#text).

Graduate Certificate Options

Students enrolled in a master's degree have the opportunity to also pursue one of the many engineering graduate certificate options in addition to or in combination with the MS degree. Students should consult their faculty advisor regarding these options (https://catalog.northeastern.edu/graduate/engineering/graduate-certificate-programs/).

GORDON INSTITUTE OF ENGINEERING LEADERSHIP OPTION

Students have the opportunity to pursue the Gordon Engineering Leadership Program (https://catalog.northeastern.edu/graduate/engineering/multidisciplinary/engineering-leadership-graduate-certificate/) in combination with the MS degree.

Programs

Doctor of Philosophy (PhD)

- Civil and Environmental Engineering (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-environmental-engineering-phd/)
- Interdisciplinary Engineering (https://catalog.northeastern.edu/graduate/engineering/interdisciplinary-phd/interdisciplinary-engineering-phd/)

Master of Science (MS)

- Climate Science and Engineering
- Engineering and Public Policy (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/engineering-public-policy-ms/)

Master of Science in Civil Engineering (MSCivE)

- Civil Engineering with Concentration in Construction Management (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-engineering-concentration-construction-management-mscive/)
- Civil Engineering with Concentration in Data and Systems (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-engineering-concentration-data-systems-mscive/)
- Civil Engineering with Concentration in Geotechnical/Geoenvironmental Engineering (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-engineering-concentration-geotechnical-geoenvironmental-mscive/)
- Civil Engineering with Concentration in Structures (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-engineering-concentration-structures-mscive/)
- Civil Engineering with Concentration in Transportation (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-engineering-concentration-transportation-mscive/)
- Civil Engineering with Concentration in Water, Environmental, and Coastal Systems (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/civil-engineering-concentration-water-environmental-coastal-systems-mscive/)

Master of Science in Environmental Engineering (MSEnvE)

- Environmental Engineering (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/environmental-engineering-msenve/)

Master of Science in Sustainable Building Systems (MSSBS)

- Sustainable Building Systems (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/sustainable-building-systems-mssbs/)

Graduate Certificate

- Climate and Engineering (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/climate-engineering-graduate-certificate/)
- Sustainability Engineering (https://catalog.northeastern.edu/graduate/engineering/civil-environmental/sustainability-engineering-graduate-certificate/)