Civil Engineering
Master of Science

The Department of Civil Engineering offers graduate programs leading to the Master of Engineering degree and the Master of Science degree. The Master of Engineering degree permits specialization in the following options: soils-structures engineering, environmental engineering, water resources engineering, and general civil engineering. The Master of Engineering degree program is designed to provide an opportunity for engineers to achieve formal education beyond the Baccalaureate level with a strong and directed emphasis toward the practice of engineering. The focus of the program is on the development of competency in the area of engineering design. The goal of the program is development of the student as a practitioner capable of systematically solving complex problems of society within his or her field.

The Master of Science degree in Civil Engineering prepares students for careers in research, practice and further studies toward a Ph.D. degree in a specialty area of civil engineering. The M.S. degree is typically completed in 18-24 months of full-time study for students holding a bachelor’s degree in civil engineering from an accredited school. The M.S. degree requires independent research for a thesis in the student’s area of interest. The faculty research interests are in the broad areas of environmental, geotechnical, pavements, structural engineering and mechanics, and water resources engineering. Graduate students are encouraged to explore various topics for their M.S. theses depending on the mutual interest between them and the faculty.

The mission of the Master of Science program in Civil Engineering is to prepare students for careers in private and public practice of civil engineering and for advanced study in the field of civil engineering. The major emphasis of the program is to foster a deeper understanding of the engineering research process. Students in the program usually specialize in environmental engineering, structural engineering, water resources engineering, or pavement materials engineering.

Goal 1: Students will build on knowledge gained in their undergraduate program of study to achieve a fuller understanding of civil engineering and the engineering research process.
Goal 2: Students will perform a detailed research project in a specific focus area related to civil engineering.
Goal 3: Graduates will be prepared for a career in private or public practice in civil engineering and related fields and for further advanced study in the field of civil engineering.

Admission Requirements

The applicant must meet the School of Graduate Studies' current minimum general admission requirements as published in the graduate catalog.

1. Minimum general admission requirements in the Admission section of the graduate catalog.
2. A baccalaureate degree in engineering or science from a recognized college or university.
3. Graduate Record Examination scores on the General Test will be required for those holding undergraduate degrees from other than ABET-accredited programs.
4. A cumulative Grade Point Average (GPA) of at least 2.75 for all undergraduate work or a GPA of at least 3.0 for the junior and senior years of undergraduate work (based on A = 4.00).
5. Satisfy the School of Graduate Studies' English Language Proficiency requirements as published in the graduate catalog.

Degree Requirements

Students seeking the Master of Science degree at the University of North Dakota must satisfy all general requirements set forth by the School of Graduate Studies’ as well as particular requirements set forth by the Civil Engineering Department.

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Deadlines apply. See our website for more details. Last Updated: 6/25/2014
Email: questions@gradschool.und.edu
Degree requirements will be those listed by the School of Graduate Studies for the M.S. degree, both for the thesis option and the non-thesis option. There are no specific departmental degree requirements beyond those listed in the graduate catalog for the M.S. degree.

**Thesis Option:**
1. A minimum of 30 semester credits in a major field, including the credits granted for the thesis and the research leading to the thesis.
2. At least one-half of the credits must be at or above the 500-level.
3. A maximum of one-fourth (usually 8-9 semester credits) of the credit hours required for the degree may be transferred from another institution.
4. The program may include just the major, the major and a minor, or the major and a cognate area. The major must include 20 credits from the major department, and a minor or cognate area must include at least nine credits.
5. Preparation of a written thesis approved by the faculty advisory committee (ME 998 Thesis, 4-9 credits).
6. Comprehensive final examination.

**Non-Thesis Option:**
1. Thirty-two (32) credits including credits required for the major.
2. A minimum of two credits of Independent Study.
3. At least one-half of the credits must be at or above the 500-level.
4. A maximum of one-fourth (usually 8-9 semester credits) of the credit hours required for the degree may be transferred from another institution.
5. Preparation of a written independent study report approved by the faculty advisor (ME 997 Independent Study, 2 credits).
6. Comprehensive final examination.

Course offerings vary by semester based on student demand and instructor loads.

**Faculty and Areas of Expertise**
- *Daba Gedafa, Ph.D.,* P.E., Pavement and Materials Engineering
- *Harvey Gullicks, Ph.D.,* P.E., Water and Wastewater Treatment and Contaminated Media Remediation
- *Sukhvarsh Jerath, Ph.D.,* P.E., Structural Engineering and Structural Mechanics
- *Yeo Howe Lim, Ph.D.,* Water Resources and Fluid Mechanics
- *Iraj H.P. Mamaghani, Ph.D.,* P.E., Structural Engineering and Structural Mechanics
- *Charles Moretti, Ph.D.,* P.E., Chair, Environmental Engineering, Water Treatment
- *Nabil Suleiman, Ph.D.,* Geotechnical and Transportation Engineering, Pavement Engineering and Highway Materials

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*The Department of Civil Engineering also offers a Master of Engineering degree.*

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