Civil Engineering, MS

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# **CIVIL ENGINEERING, MS**

More Information: https://engineering.case.edu/civil-and-environmental-

engineering

**Degree:** Master of Science (MS) **Field of Study:** Civil Engineering

## **Program Overview**

The Civil Engineering MS degree program offers concentrations in Structural Engineering, Geotechnical Engineering, Environmental Engineering, and Engineering Mechanics to prepare students for careers in industry, professional practice, research, and teaching. Experience has shown that job opportunities are excellent for students who receive advanced degrees in Civil Engineering from Case Western Reserve University. Recent advanced degree recipients have found positions in universities, consulting firms, construction management companies, state and federal agencies, aerospace firms, and the energy industry.

Each student's program of coursework and research is tailored to their interests in close consultation with a faculty advisor. For students working toward the Civil Engineering MS degree, study plans may include a thesis-focused, project-focused, or course-focused approach followed by a culminating experience.

All students pursuing graduate studies in the Department of Civil and Environmental Engineering must abide by the academic regulations of the School of Graduate Studies and the Case School of Engineering and with approval of the student's faculty advisor in the Department of Civil and Environmental Engineering.

#### **Admission**

Graduate students shall be admitted to one of three MS degree tracks (thesis-focused, project-focused, course-focused) upon recommendation of the faculty of the Department. Requirements for admission include a strong record of scholarship in a completed bachelor's degree program in the field of Civil or Environmental Engineering or in a related field and fluency in written and spoken English.

Students with a degree other than Civil or Environmental Engineering will be evaluated for admittance on a case by case basis by the department; and depending on their preparation considered for provisional admittance. A provisional graduate student is expected to complete appropriate course work and to meet the performance standards of the School of Graduate Studies within the first academic year of study.

For a thesis-focused or project-focused track, the University requires all foreign applicants to show English proficiency by achieving a TOEFL score of at least 90 on the internet-based exam. For a course-focused track, a minimum TOEFL score of 80 is required. If there is any professional role that involves student-to-student interaction, e.g. as a teaching assistant, a lab instructor, or a tutor, then a minimum TOEFL score of 90 or other equivalent forms of English proficiency assessment is required.

It is encouraged that all students submit original copies of GRE scores, with the exception of CWRU students applying to the BS/MS program.

#### **Advising**

Upon admission to the graduate program, each graduate student is assigned an academic advisor to assist in registration as well as planning a program of study (Academic Program). This is a temporary assignment made by the Department Chairperson based on the student's academic and research interests as identified at the time of application.

For students under Research-Focused track, during the first semester in the program, it is strongly suggested that each student meet with various members of faculty to discuss academic objectives/goals and research opportunities. In order to complete the research component of their respective degree program, each student must identify a faculty member who is willing to serve as the student's research advisor. Students are expected to pick a research advisor by the end of their first semester in the program who will supervise their thesis or project. Each student, in consultation with their advisor, must submit an Academic Program preferably before completing 9 credit hours of coursework. This should specify all courses and thesis work that will be counted toward the 30 credit hour requirement.

The research advisor will also serve as the student's permanent academic advisor if they are a member of the department faculty. If, however, the research advisor is not a member of the department faculty, the student is required to find a permanent academic advisor from the department faculty. For students enrolled in an MS Thesis-Focused degree program, the research advisor is commonly known as the "thesis advisor".

Students may change advisors for a variety of reasons of which one of the most common is a change of the student's field of interest. It should be noted that a change in research advisor may require that the student start a new research project, which could result in delaying graduation. It is the responsibility of the student to inform the ECSE Office of Student Affairs in the event of a change in advisor. In addition, the student must file all appropriate forms with Graduate Studies.

### **Graduate Policies**

For graduate policies and procedures, please review the School of Graduate Studies section of the General Bulletin.

## **Program Requirements**

Graduate students shall be admitted to one of three MS degree tracks (thesis-focused, project-focused, course-focused) upon recommendation of the faculty of the Department of Civil and Environmental Engineering.

#### **Thesis-Focused Track**

See academic requirements of the School of Graduate Studies and Case School of Engineering.

#### **Project-Focused Track**

See academic requirements of the School of Graduate Studies and Case School of Engineering.

#### **Course-Focused Track**

See academic requirements of the School of Graduate Studies and Case School of Engineering.

### **Concentration Requirements**