

M.S. IN CIVIL ENGINEERING

OVERVIEW

M.S. students in our department gain advanced knowledge in civil engineering and can specialize in environmental, geotechnical, structural, and transportation fields. Most students doing research are involved in computational work. Some students, mainly in environmental area are involved laboratory and field research. The department faculty conduct both applied and fundamental research and tailor the research project to students' interests and skill sets. Most of our students present their work in local and national conferences. Students work closely with their research advisor to make timely progress towards completing their degree. Our department has an excellent track record with our MS students finding an industry or consulting job prior to or shortly after they graduate. MS students interested in an academic career often publish their research before continuing on to obtain a PhD degree either in our department or at another institution.

1. Solve engineering problems in one of the two specialty areas (Infrastructure and Environmental).
2. Solve engineering problems using mathematics in one of the two specialty areas indicated in SLO (1).
3. Successfully present the results of engineering research in oral and written forms.
4. Synthesize the completed research for publication in a journal, book, or conference for thesis students.
5. Practice responsible citizenship in local and global communities by using skills including but not limited to professional ethics, diversity and inclusion, and social equity.

ADMISSIONS REQUIREMENTS

Most students admitted have a strong GPA from a civil, environmental, or chemical engineering department. Students with non-engineering backgrounds can be admitted provisionally until they demonstrate proficiency in key engineering skills. See College of Engineering admissions information for details.

PROGRAM REQUIREMENTS

For the master of science in civil engineering (M.S.C.E.) degree, a minimum of 30 credit hours is required – 21 cr hr of graduate course work and 9 cr hr of thesis research (CIVE 6960) performed under the supervision of a full-time faculty member approved by the department of civil engineering. The department also offers a M.S.C.E. degree with a project or course work option with the written approval of the department chair or graduate program director. In the project option, a minimum of 30 cr hr is required – 24 cr hr of graduate course work and 6 cr hr for the project report (CIVE 6920). In the course work-only option, a minimum of 30 cr hr in graduate course work is required. Courses taken on an audit basis do not count toward the degree. Additional requirements include:

- A maximum of 6 cr hr of CIVE 6990 Independent Study is allowed toward the degree.
- Students must prepare a plan of study in conjunction with the adviser (graduate program director for the first semester) with a concentration of required and elective courses in one of the department's research focus areas of graduate study and receive approval from the graduate program director. Required core courses in each area are determined by the faculty comprising that research area in conjunction with the graduate program director.
- No more than 9 cr hr toward the M.S.C.E. may be earned at another university, and in no case may the thesis or project be satisfied by work completed at another institution.

Students graduating with the MS in civil engineering are expected to attain the following outcomes: