The Department of Civil Engineering offers graduate-level instruction and research programs leading to the degrees of Master of Civil Engineering (MCE), Master of Science (MS) and Doctor of Philosophy (PhD). These programs provide qualified students opportunities for advanced training and specialization and enable them to gain experience conducting engineering research and interpret and communicate their findings. The department offers programs in Construction Engineering and Management, Environmental Engineering, Geotechnical Engineering, Hydraulics/Hydrology, Pavements and Materials, Structural Engineering, and Transportation Engineering. Coursework may be taken in supportive disciplines including applied statistics, building science, computer science or mathematics, with sufficient justification.

Applicants for the graduate programs must have an earned baccalaureate degree (BCE, BS or BSCE) in Civil Engineering or a closely related area and must have completed such formal training as to warrant advanced study in the major and minor fields. Applicants from related disciplines may be required to take prerequisites, as determined by the relevant specialty program and the department. There is no formal foreign language requirement.

All MS candidates must write a thesis. At least 30 semester hours of graduate-level course credit must be completed satisfactorily. At least six of the 30 hours must be in CIVL 7990 and at least 24 hours must be in graduate course work other than CIVL 7990. Candidates must pass a comprehensive examination covering the coursework, research and thesis.

Admission requirements for MCE are the same as those for MS. MCE students must take at least 30 semester hours of graduate-level courses, which may include three-semester hours of CIVL 7980. A plan of study must be approved by the student’s advisory committee.

PhD applicants must have earned a BS or master’s degree in Civil Engineering or a related area. Applicants from other related disciplines may be required to take prerequisites determined by the relevant specialty program and the department.

The PhD is conferred in recognition of mastery of a specific field of knowledge and a contribution to that engineering discipline through the doctoral dissertation. The degree is a research degree, requiring not only completion of certain technical requirements but proof of the candidate’s ability to work independently in an engineering research environment.

To be qualified as a PhD candidate, an admitted doctoral student must pass a written comprehensive examination and a follow-up oral critique administered by the student’s advisory committee. The examination may not be taken sooner than one year after the student begins doctoral course work. Additional academic preparation may be prescribed by the advisory committee to strengthen deficiencies identified by the examination, or the student may be suspended from the program. One retake may be permitted after the student has completed the prescribed preparation. Upon successful completion of the examination, the student becomes a candidate for the PhD.

After successfully completing the comprehensive examination, the doctoral candidate will defend the proposed dissertation topic, which must represent a significant contribution to the state-of-the-art. This defense may be included in the oral critique of the comprehensive examination if the advisory committee agrees. Once the committee approves the research topic, the doctoral candidate may proceed with the research and dissertation. When it is completed, the candidate defends the completed dissertation before the advisory committee and the outside reader appointed by the Graduate School.