GRADUATE STUDY AT THE COLLEGE OF ENGINEERING

Today, the College of Engineering at the University of Michigan is consistently ranked among the top engineering schools in the world. All of its undergraduate degree programs are ranked by *U.S. News & World Report* and nearly all of its graduate degree programs are rated in the top ten nationwide. The graduate Civil Engineering Programs is **currently ranked 8th** and the graduate Environmental Engineering Program is **ranked 4th** in the nation.

**Academic Programs**

The College of Engineering offers undergraduate and graduate programs through the doctoral level. The undergraduate program consists typically of a four-year schedule leading to a bachelor's degree. There are 14 courses of study that lead to the Bachelor of Science in Engineering degree (B.S.E.) and one that leads to the Bachelor of Science degree (B.S.). By careful planning, an additional bachelor's degree (B.S. or A.B.) can be earned within the College of Engineering or in combination with another college within the University of Michigan in about one year beyond the time required for a single degree. Completion of both an engineering baccalaureate and a master's degree in approximately five years is also possible.

**Academic Progress**

The time it takes to complete a particular program of study depends on factors such as the number of transfer credits, program options such as thesis or project, and the type of research being undertaken. However, there are some general time frames to which your own academic progress can be compared.

**Average Time for Degree Levels**

The minimum time to complete the MSE requirements is one calendar year if no credits are being transferred from another program. A more common time to complete the Master's degree is three to four academic semesters. A minimum of 30 credit hours of approved graduate work must be completed for the MSE degree. Nine to twelve hours of credit per term is the usual full-time graduate course load. Graduate students with research or teaching appointments generally elect no more than six to nine credit hours per term.

Since the requirements to complete a PhD involve conducting independent research, it is more difficult to estimate a total time to complete this degree. However, a reasonable estimate is four years for a student entering the program with a Master's degree and five years entering with a BS degree. The milestones for completing the PhD degree include the following:

**Completing PhD coursework** - general requirements are 18 hours of coursework beyond the Master's degree, subject to approval by the Dissertation Committee. Generally this takes approximately three years for a student entering with a BS degree. Four credits of cognate courses (courses outside the CEE Department) and an advanced mathematics elective are required toward this total. Courses taken as a part of MS studies may be used to fulfill this requirement.

**Qualifying Examination** - Examination on coursework; this requires 18 hours of coursework beyond the BS degree. The Qualifying Examination should generally be taken at the end of one year after entering the PhD program. A committee of four faculty members generally
administers a written and oral examination on material related to coursework; details vary somewhat among the various programs.

**Preliminary Examination** - Taken prior to admission to Candidacy; this involves a presentation of the proposed PhD dissertation research to the Dissertation Committee consisting of at least four members with at least one faculty member outside the CEE department. The student prepares a written document defining the proposed research and orally presents it to the Dissertation Committee. The thesis topic is generally developed in consultation with the faculty advisor/dissertation chair.

**Candidacy** - attained after the completion of the Preliminary Examination. Other requirements for Candidacy include demonstration of competence in English technical writing, enrollment in a minimum number of hours of coursework and research (exact number depending on whether or not the student has an MS or a master’s degree from another university), and substantial completion of the coursework. PhD students must achieve candidacy within 3 years of the start of their program.

**Dissertation Defense** - after completion of the dissertation, a final defense is scheduled in which the results of the dissertation research are presented to the Dissertation Committee. Final revisions to the dissertation are recommended by the dissertation committee and after format checks, the application for the degree is accepted by the Rackham Graduate School.

**Student Honor Code**

The Student Honor Code was proposed by the engineering student body in 1915, and approved by the engineering faculty in 1916. It has been in effect since its inception, and is truly a distinguishing feature of enrollment at the College of Engineering. By observing the Code, students do their work in an environment of high standards of personal integrity and professional ethics.

As a basic feature of the Code, students are placed upon their honor during all examinations and written quizzes, and as required by the instructor, for computer assignments, homework, and laboratory reports. Although the instructor is available for questions, the examination may not be proctored. The student is asked to write and sign the following pledge at the end of the examination paper:

"I have neither given nor received unauthorized aid on this examination, nor have I concealed any violations of the Honor Code."

Either a student or the instructor may report a suspected violation to the Associate Dean of Academic Affairs, 2464 Lurie Engineering Center (LEC), (734) 647-7020. The report is then investigated by the Student Honor Council, resulting in a recommendation to the Faculty Committee on Discipline.