

Industrial and Systems Engineering

MISE, MS, MISE/MBA, PhD

The Department of Industrial and Systems Engineering offers the master's of industrial and systems engineering, a joint program leading to both MISE and MBA degrees, a master of science and a doctor of philosophy. These programs are for students with undergraduate degrees in industrial and systems engineering, as well as other engineering disciplines, mathematics and sciences.

Applicants must submit Graduate Record Examination (GRE) scores. MISE/MBA applicants must submit Graduate Management Admission Test (GMAT) scores.

Both the MISE and MS programs require 31 hours of course work. The MISE is oriented toward professional practice. MISE students must take fifteen (15) semester hours from a set of core courses, a minimum of six (6) hours of INSY electives, an additional six (6) hours of INSY or related electives, and either a three-hour design project (project option) or an additional INSY or related elective (coursework option), plus a one (1) hour seminar course. The MS requires the same 15 hours of core courses, a minimum of six (6) hours of INSY electives, an additional three (3) hours of INSY or related electives, a six-hour thesis, and a one (1) hour seminar course.

The MISE/MBA is a 55-hour program administered jointly by ISE and the MBA program. The MISE part of the program consists of 15 hours of INSY core courses, a minimum of six (6) hours of INSY electives, an additional six (6) hours of INSY or related electives, and a one (1) hour INSY seminar course. The MBA part of the program consists of twenty-one (21) hours of BUSI required courses, and an additional six (6) hours of BUSI or related electives. Students must apply separately to each program (MISE and MBA). Contact the graduate school when applying for the second program to have the application fee waived. Acceptance into one program does not guarantee acceptance into the other program. The GMAT will be used for admission decisions for both programs.

Research involvement is the dominant element in the doctoral program. It provides a quality educational experience for selected individuals whose records indicate excellent potential not only for superior performance in course work, but also for the research and ensuing dissertation which is an original and scholarly contribution to the field. The PhD program requires at least 60 semester hours of coursework beyond the bachelors, including 15 semester hours of core courses. A minimum of one hour is also required for seminar courses. The student must demonstrate a high level of proficiency in a specific area of industrial and systems engineering, as well as a competence in the entire field. The degree typically requires at least one calendar year of research.