MS in Electrical and Computer Engineering

The Master of Science in Electrical and Computer Engineering is designed to provide in-depth specialization in a particular area in electrical or computer engineering. Areas of specialization offered by the program are communication and signal processing, computing systems, control systems and robotics, and power and energy systems. Students choose their area of specialization in consultation with their advisor.

The program admits students with a bachelor’s degree in electrical engineering, computer engineering, or a related area. Students from other areas with at least one year of university-level engineering mathematics may be admitted with an extra requirement to complete some undergraduate background deficiency courses prescribed at the time of admission.

To be considered for admission to the program, a student must have earned a GPA of at least 3.000 (or an equivalent score from another country) in the bachelor's degree. Students whose bachelor’s degree is from an institution outside the U.S. are required to submit official scores of the GRE General Test along with the admission application.

Program Requirements

Each MSECE student chooses a major specialization area. Major areas in the department are communication and signal processing, computing systems, control systems and robotics, and power and energy systems. Current courses in each of these areas are listed on the department’s website.

The number of courses taken by the student in the major and minor areas depends upon the graduating option chosen. A limited number of electives may also be taken with approval of the student’s advisor.

Graduating Options

Thesis Option

Select at least 30 credit hours at the graduate level, including:		30
At least 9 credit hours of courses from a major area, of which at least 3 credit hours must be numbered at 800-level or higher		
EE 876	Master's Thesis (Select at least 6 credit hours)	
Total Credit Hours		30

Project Option

Select at least 33 credit hours at the graduate level, including:		33
At least 9 credit hours of courses from a major area, of which at least 3 credit hours must be numbered at 800-level or higher		
EE 878	Master's Directed Project (Select at least 3 credit hours)	
Total Credit Hours		33

Coursework Option

Select at least 36 credit hours at the graduate level, including:		36
At least 12 credit hours of courses from a major area, of which at least 6 credit hours must be numbered at 800-level or higher, and at least 3 credit hours must be courses with a research writing and presentation component		
At least 6 credit hours of courses from a minor area, of which at least 3 credit hours must be numbered at 800-level or higher (Any of the major areas can also be chosen as a minor area. In addition, computer networking can be a minor area. Current courses in each of these areas are listed on the department’s website)		
At least 27 credit hours of courses should be a combination chosen from the MSECE major and minor course lists		
Total Credit Hours		36