

ELECTRICAL AND COMPUTER ENGINEERING, MS

Admission Requirements

Applicants for the master of science program must hold a bachelor's degree from a program accredited by the Engineering Accreditation Commission of ABET at the time of graduation, or provide evidence of an equivalent academic background.

Applicants must submit official undergraduate transcripts, a curriculum vitae, three letters of recommendation, and a statement of purpose. Personal statements or descriptions of post-baccalaureate experience that provide a rationale for proposed graduate study may also be submitted.

Official results of the analytical writing and quantitative portions of the GRE must be submitted. The GRE minimum requirements for admission into graduate programs in the College of Engineering and Polymer Science for study in Electrical and Computer Engineering can be met by one of the three score combinations below:

Analytical Writing	Quantitative
2.5	166
3.0	159
3.5	153

Applicants with a bachelor's degree must have an overall grade-point average of 2.75 or better or 3.00 for the last two years (64 semester credits or equivalent).

Applicants whose native language is not English must have a TOEFL score of at least 79 on the internet-based TOEFL or an IELTS score of 6.5.

Applicants who do not satisfy the requirements for Full Admission may be granted Provisional Admission or Deferred Admission with departmental approval.

Degree Requirements

The University's Academic Requirements (See Academic Requirements in this Graduate Bulletin), the following College of Engineering and Polymer Science requirements and the department's academic requirements must all be satisfied for the master of science degrees in the College of Engineering and Polymer Science.

- Identify a three-member Advisory Committee including a major advisor before completion of 9 credit hours of coursework.
- Complete a formal Plan of Study that is acceptable to the Advisory Committee with a minimum of 24 credit hours of coursework of which no more than 6 credits are special topics courses. The formal Plan of Study may be revised upon approval of the Advisory Committee.
- Successfully (no "fail" votes) defend the thesis before the Advisory Committee, or have the Engineering Report approved by the Advisory Committee, or successfully complete the appropriate department's nonthesis option requirements.

Applicants with a bachelor's degree in a discipline other than engineering shall have completed coursework in calculus, differential equations, and classical physics, and must complete a set of undergraduate courses chosen with approval of the department that demonstrate competency in circuits and electronics, systems analysis and design

based on differential equations, and other areas of electrical and computer engineering. These undergraduate engineering courses may be taken prior to graduate admission or concurrently if the student has full admission or provisional admission and is enrolled for at least nine graduate credits. A limited number of these courses may be taken at the 500-level and may count toward the M.S. degree provided that they are included in a formal Plan of Study approved by the student's Advisory Committee.

Areas of study for the master's in Electrical and Computer Engineering cover a wide range of topics in both electrical and computer engineering, including power and renewable energy, control systems, electromagnetics, sensors and sensing systems, communications and signal processing, analog and digital electronics and devices, embedded systems and software engineering.

Thesis Option

Code	Title	Hours
	Electrical and Computer Engineering Courses	15
	Approved Mathematics	3
	Approved Electives	6
	Master's Thesis	6
Total Hours		30

The required coursework must include at least 12 credits at or above the 600-level and may not include more than six credits of special topics or special problems courses. Coursework must follow a plan of study that is approved by the Advisory Committee before 12 credits are completed.

Nonthesis Option

Code	Title	Hours
	Electrical and Computer Engineering Courses	15
	Approved Mathematics	6
	Approved Electives	9
ELEN:697	Engineering Report	2
Total Hours		32

The required coursework must include at least 12 credits at or above the 600-level and may not include more than six credits of special topics or special problems courses. Coursework must follow a plan of study that is approved by the Advisory Committee before 12 credits are completed.

Electrical and computer engineering students pursuing the nonthesis option must pass an engineering report course and submit an engineering report, evaluated by the advisory committee, after completing no less than 24 credits of graduate coursework.