

# COMPUTER ENGINEERING (M.S.)

The Computer Engineering Program offers both Master of Science and Master of Engineering degrees. Both degrees may be earned through the Engineering Outreach off-campus program. These advanced degrees offer engineering students an opportunity to strengthen their knowledge of computer engineering by taking graduate courses that focus on advanced subject matter and by participating in research.

## Qualifications for Admittance

Candidates must have a bachelor's degree in computer engineering with an undergraduate GPA of 3.00 or higher. International students who are required to take the TOEFL examination by the College of Graduate Studies must have a TOEFL score of at least 79 for the Internet-based Test (iBT) version or 550 for the paper version. All candidates must submit scores from the general portion of the Graduate Record Examination.

Candidates who do not have a bachelor's degree in computer engineering may be admitted to the graduate program if they meet the following minimum requirements in addition to the Electrical and Computer Engineering department and College of Graduate Studies admissions requirements.

1. A bachelor's degree in electrical engineering, computer science, or another engineering discipline or in a science such as mathematics or physics.
2. Demonstrated proficiency in the fundamentals of computer engineering emphasized in the undergraduate curriculum. Proficiency is demonstrated by successful completion of the following fundamental courses or their equivalents<sup>1</sup>:

| Code     | Title   | Hours |
|----------|---|-------|
| CS 240   | Computer Operating Systems                              | 3     |
| ECE 240  | Digital Logic   | 3     |
| ECE 310  | Microelectronics I                                      | 3     |
| ECE 340  | Microcontrollers  | 3     |
| ECE 350  | Signals and Systems I                                   | 3     |
| ECE 440  | Digital Systems Engineering                             | 3     |
| MATH 310 | Ordinary Differential Equations                         | 3     |
| MATH 330 | Linear Algebra (does not count for the graduate credit) | 3     |

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Does not count for graduate credit.

Students may petition the graduate committee for exceptions to the required background list if their advisor or interim advisor approves.

## Master of Science. Major in Computer Engineering.

To be approved, programs must satisfy the university requirements governing the M.S. degree and students must be enrolled in ECE 591 during each semester of on-campus enrollment.

Please see the Computer Engineering Graduate Student Handbook for details and program requirements on earning this degree.

1. An in-depth knowledge of the degree subject matter, integrating and building upon the foundation provided by a relevant undergraduate degree.
2. The ability to use the results of applied research and other existing information necessary to carry an engineering project from conceptual through the design and production phases.
3. An understanding of the responsibility to enhance the quality of life of the global community through the practice of engineering.