# Electrical and Computer Engineering, MS

The Department of Electrical and Computer Engineering stimulates excellence in scholarship and research through close contact with the faculty and programs tailored to fit students' individual needs.

Students select an advisor and, with the advisor, plan an individual program bounded only by the broad guidelines of the Graduate College and the program. The department maintains close interdisciplinary ties with other University of Iowa departments, especially with the departments of Physics and Astronomy and Computer Science (College of Liberal Arts and Sciences); the Roy J. Carver Department of Biomedical Engineering and the departments of Industrial and Systems Engineering and Mechanical Engineering (College of Engineering); and the Carver College of Medicine. Principal areas of graduate study include medical image analysis, signal and image processing, control systems and systems theory, wireless communications, waves and materials, computer systems, and computational genomics. View principal areas of study under Research and Study Areas in the Electrical and Computer Engineering section of the catalog.

## Learning Outcomes

Students will be able to:

- demonstrate a broad knowledge of electrical and computer engineering topics;
- be able to analyze electrical and computer engineering problems and apply their knowledge to solve them; and
- demonstrate professional skills of effective communication and ethical conduct in professional, social, and scholarly activities.

In addition to the learning outcomes listed, students who complete a thesis will be able to:

- demonstrate a mastery of concepts in their specific area of study;
- be able to employ experimental methods to investigate and generate reports for research-oriented problems; and
- demonstrate leadership in professional, social, and scholarly activities.