

# Electrical and Computer Engineering

## Chair

Gary E. Christensen

**Undergraduate majors:** computer science and engineering (BSE); electrical engineering (BSE)

**Graduate degrees:** MS in electrical and computer engineering; PhD in electrical and computer engineering

**Faculty:** <https://engineering.uiowa.edu/ece-people>

**Website:** <https://engineering.uiowa.edu/ece>

## Facilities

### Undergraduate Core

Electrical and computer engineering provides core instruction for the college in electrical circuits, electronics, instrumentation, and computers. A key part of this core teaching responsibility lies in providing students with an early opportunity to use engineering laboratory instrumentation.

### Undergraduate Laboratories

The department's undergraduate laboratories include facilities for the study of the internet of things (IoT), electrical and electronic circuits, wireless communication, power and sustainable energy, signals and systems, embedded systems, measurement automation, communication systems, control systems, image processing, robotics, and optics. The laboratories are equipped with modern equipment, including digital oscilloscopes, computer-controlled virtual instrumentation, and software and hardware for embedded systems development.

### Graduate Facilities and Laboratories

The department has laboratories intended primarily for graduate research in the areas of virtual and augmented reality, deep learning, big data, bioinformatics, image processing, software engineering, electro-optics, control systems, medical imaging and image analysis, large-scale intelligent systems, and wireless communication. Linux, Macintosh, and Windows workstations and server nodes provide college-wide networked computing support. Through cooperative arrangements, advanced computing facilities at national supercomputing centers, federal laboratories, and other universities are available for graduate research.