

ELECTRICAL ENGINEERING, B.S.

As an electrical engineering major, you can learn to design, develop, analyze, research and create systems for a wide variety of fields, including power generation, communication, healthcare and instrumentation. You'll also learn about the devices and components that make up these systems—from the smallest transistors (of which there can be hundreds of billions on a single chip!) to antennas, lasers, electric engines and even fusion devices that could provide power for the world.

Electrical engineering majors learn the tools for analyzing and operating systems, including signal processing, control and machine learning. You can even focus on the mathematics, tools and practices associated with machine learning and data science in engineering with our new Machine Learning and Data Science named degree option. In the UW-Madison ECE department, our program will match your ambition.

ELECTRICAL ENGINEERING AND COMPUTER ENGINEERING PROGRAM EDUCATIONAL OBJECTIVES

Our graduates should be engaged in activities such as:

1. Employment in industry, government, academia, or nonprofit using their degree knowledge or skills for professional functions such as teaching, research and development, quality control, technical marketing, intellectual property management, or sales. Graduates may eventually reach a leadership position supervising others.
2. Continuing education through self-study or short courses and workshops through their employer, local or online educational institutions, or attendance at professional events such as conferences.
3. Taking a principal role in starting a new business or product line.
4. Pursuing a postgraduate degree.