PH.D. IN ELECTRICAL ENGINEERING

The Ph.D. in Electrical Engineering creates future leaders in the thriving field of electrical engineering. Under the tutelage of renowned electrical engineering faculty, graduates of this program produce significant contributions and original research to advance next generation technologies.

Offering a highly customizable curriculum, the program specializes in the following focus areas: biomedical engineering, communications and signal processing, computer engineering, controls and robotics, electromagnetics and remote sensing, and lasers and photonics.

Students pursuing a Ph.D. in Electrical Engineering complete a research-oriented plan of study including a dissertation and coursework. Students interested in graduate work should refer to CSU's Graduate and Professional Bulletin (http://catalog.colostate.edu/general-catalog/graduate-bulletin/) and the website for the Electrical and Computer Engineering Department (http://www.engr.colostate.edu/ece/).

Program Learning Objectives

1. Identify, formulate, and solve advanced research problems using fundamental electrical engineering principles, methodologies, and tools.
2. Produce important contributions and add to the body of knowledge through peer-reviewed, high-impact publications.
3. Demonstrate effective oral and written communication to convey technical concepts to both engineers and non-engineers.
4. Demonstrate professional behavior and understand the ethical, economic, environmental, and societal impacts of their work.
5. Be leaders in Electrical Engineering research.

Institutional Learning Objectives

These Program Learning Objectives (PLOs) align with and support the University's Institutional Learning Objectives (ILOs), which are Creativity, Reasoning, Communication, Responsibility, and Collaboration.

Creativity: PLOs 1 and 2 ensure that students can creatively apply their disciplinary expertise to solve complex problems using fundamental electrical engineering principles and methods.

Reasoning: PLOs 1 and 2 ensure that students can apply reasoning skills to solve complex problems using fundamental electrical engineering principles and methods.

Communication: PLOs 2 and 3 ensure that students demonstrate effective communication to a variety of audiences.

Responsibility: PLOs 4 and 5 ensure that students exhibit responsible behavior according to professional standards.

Collaboration: PLOs 3, 4, and 5 ensure that students demonstrate professional skills to engage collaboratively to solve problems in a societal context.