MAJOR IN ELECTRICAL ENGINEERING, ELECTRICAL ENGINEERING CONCENTRATION

Electrical engineering is a broad discipline that is essential to our everyday lives. Our professors will teach students to think like an engineer to drive what's next in technology and create a better world for all, from advanced medical devices to self-driving cars to smart homes.

Our students are imaginative and inventive and love the thrill of problem-solving. Whether working on a senior design project that satisfies real customer requirements to participating in a day-long hacker competition, students will have the opportunity to turn their bold ideas into original projects at every level of our program.

Electrical and Computer Engineering (ECE) courses and research areas span a range of disciplines that include:
- Biomedical Engineering
- Communications and Signal Processing
- Computer Engineering
- Controls and Robotics
- Electromagnetics and Remote Sensing
- Lasers and Photonics

Learning Objectives

The ECE program educational objectives are designed and implemented around the following three principal attributes: mastery, innovation, and leadership.

Graduates of the Electrical Engineering program will be able to:

1. Identify, formulate, and solve engineering problems in electrical systems and devices by applying principles of electrical engineering, science, and mathematics.
2. Apply the engineering design process to produce electrical engineering solutions, balancing technical objectives with broader considerations including public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in electrical engineering and make informed judgments, considering their impact in global, economic, environmental, and societal contexts.
5. Function effectively on teams, collaborating on tasks related to electrical engineering, to establish goals, task plans, and to meet task objectives.
6. Develop and conduct appropriate experimentation, analyze results, and use principles of electrical engineering to draw conclusions.
7. Acquire and apply new knowledge in electrical engineering, leveraging appropriate learning strategies.