Mission [1]

The mission of the Department of Electrical and Computer Engineering is to produce graduates who will help make Texas the foremost electrical/electronics/computer industrial center in the world, to create significant individual and industrial growth opportunities, and to be recognized as one of the premier electrical and computer engineering departments in the US.

Program Educational Objectives

Program Educational Objectives describe what a UT ECE graduate should accomplish during their first few years on the job. These are the attributes that UT alumni should be known for early in their careers.

Electrical and Computer Engineering graduates should:

1. Contribute to the economic development of Texas and beyond through the ethical practice of electrical and computer engineering in industry and public service.
2. Exhibit leadership in technical or business activity through engineering ability, communication skills, and knowledge of contemporary and global issues.
3. Continue to educate themselves through professional study and personal research.
4. Be prepared for admission to, and to excel in, the best graduate programs in the world.
5. Design systems to collect, encode, store, transmit, and process energy or information. Evaluate system performance, either individually or in teams.
6. Use their engineering ability and creative potential to create technology that will improve the quality of life in society.

Student Outcomes

Student Outcomes describe what students are expected to know and be able to do by graduation. This includes the tools and skills that will enable them to accomplish ECE’s Program Educational Objectives.

ECE graduates should demonstrate:

1. An ability to apply knowledge of mathematics, science, and engineering
2. An ability to design and conduct experiments, as well as analyze and interpret data
3. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
4. An ability to function on multi-disciplinary teams
5. An ability to identify, formulate, and solve engineering problems
6. An understanding of professional and ethical responsibility
7. An ability to communicate effectively
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
9. A recognition of the need for, and an ability to engage in lifelong learning
10. A knowledge of contemporary issues
11. An ability to use techniques, skills, and modern engineering tools necessary for engineering practice.