

ELECTRICAL ENGINEERING

MISSION of the ELECTRICAL ENGINEERING DEPARTMENT

We prepare students with the engineering expertise and well-rounded education necessary to lead and serve society.

The ABET 2009-2010 Criteria for Accrediting Engineering Programs defines Program Outcomes as follows:

Program Outcomes - Program outcomes are narrower statements that describe what students are expected to know and be able to do by the time of graduation. These relate to the skills, knowledge, and behaviors that students acquire in their matriculation through the program.

The Program Outcomes (PO) help to direct and measure the success of the Electrical Engineering Program in accomplishing its mission. Review of the Program Outcomes is an integral part of the annual assessment process.

Electrical Engineering Program Outcomes

Upon completing the program, the graduate will be prepared to enter the practice of electrical engineering or pursue an advanced degree and will have demonstrated:

1. competence in linear circuits, digital circuits, electronics, embedded microcontrollers, and communication systems;

2. an ability to use math, science, and modern engineering tools to solve engineering problems;

3. an ability to apply the design process, including experimental design; 4. an ability to use advanced mathematics, including differential equations, linear algebra, probability and statistics, and complex numbers; 5. an ability to communicate professionally in oral, written, and multimedia forms;

6. an ability to conduct experiments and to effectively evaluate, organize and present data and information; 7. that they can function as a member of a team, including multi-disciplinary teams; 8. an understanding of non-technical areas that enhance their appreciation of the engineer's role in society;

9. an understanding of how financial constraints and engineering economics impact engineering decisions;

10. a recognition of the need for continuous, career-long learning and career planning; 11. an understanding of the ethical framework within which electrical and computer engineers function with emphasis on the safety, health, and welfare of the public.

MISSION of the COMPUTER ENGINEERING DEPARTMENT

We prepare students with the engineering expertise and well-rounded education necessary to lead and serve society.

Computer Engineering Program Outcomes

Upon completion of the program, the graduate will be prepared to enter the practice of computer engineering or pursue an advanced degree and will have demonstrated:

1. competence in linear circuits, digital circuits, electronics, embedded microcontrollers, computer architecture, and software development;
2. an ability to use math, science, and modern engineering tools to solve engineering problems;
3. an ability to apply the design process, including experimental design;
4. an ability to use advanced mathematics, including differential equations, linear algebra, probability and statistics, and complex numbers;
5. an ability to communicate professionally in oral, written, and multimedia forms;
6. an ability to conduct experiments and to effectively evaluate, organize and present data and information;
7. that they can function as a member of a team, including multi-disciplinary teams;
8. an understanding of non-technical areas that enhance their appreciation of the engineer's role in society;
9. an understanding of how financial constraints and engineering economics impact engineering decisions;
10. a recognition of the need for continuous, career-long learning and career planning;
11. an understanding of the ethical framework within which computer engineers function with emphasis on the safety, health, and welfare of the public.