

## Electrical Engineering – B.S.

### Mission Statement

Electrical Engineering is science-oriented and primarily concerned with all phases and development of the transmission and utilization of electric energy and intelligence. Because of the extremely rapid growth and changes relating to the application of electrical engineering principles, the curriculum is designed to concentrate on a solid core of foundation courses. Twelve hours of electives are included to permit a student to delve deeply into selected subject matter.

### Student Learning Outcomes

UWF Electrical Engineering graduates should be able to do the following:

#### Content

- An ability to Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

#### Critical Thinking

- An ability to Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

#### Communication

- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

#### Integrity/Values

- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

## **Project Management**

- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objective.

## **Assessment of Student Learning Outcomes**

The Department of Electrical & Computer Engineering uses the following assessment tools to determine the outcome achievements for Electrical Engineering and for on-going continuous program improvements: (1) a major capstone design course which is based on the knowledge and skills acquired in earlier course work within the curriculum, (2) a three-year cycle of collecting student work from targeted courses and evaluating student attainment of the program outcomes using these samples, (3) Exit Interview Surveys by graduating seniors, (4) Alumni Surveys, and (5) Employer Surveys.

## **Job Prospects for Graduates in Electrical Engineering BS**

Electrical Engineering B.S. graduates work in a variety of settings following their undergraduate work.

Electrical Engineers find career opportunities in a wide area of settings such as aerospace contractors, manufacturers of consumer electronics, telecommunications, energy distribution, and public-sector positions with federal, state, and local governments. The typical job functions include design, development, testing, or supervision of the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use. According to the US Federal Bureau of Labor Statistics, the demand for electrical engineering is expected to continue growing. Electrical Engineering graduates typically rank among the highest paid professionals.

### ***Find Out More about Undergraduate in Electrical Engineering at UWF:***

<https://uwf.edu/hmcse/departments/electrical-and-computer-engineering/undergraduate-majors/electrical-engineering/>