

## **COMPUTER ENGINEERING**

### **Mission Statement**

The mission of the Department of Electrical & Computer Engineering is to offer undergraduate and graduate programs of excellence in engineering that serve the needs of the West Florida region, the state, and the nation. The goal of these programs is to prepare students for a successful professional career in their respective chosen discipline of study. All programs shall be revised continuously to improve quality and respond to current workforce needs.

The Computer Engineering program is accredited by the Engineering Accreditation Commission (EAC) of ABET. ABET is the recognized accreditor for college and university programs in applied science, computing, engineering and technology and is among the most respected accreditation organizations in the United States.

The program's educational objectives are to ensure:

- Graduates of the program will be successful in the professional practice of engineering or related fields and will advance in their chosen careers.
- Graduates of the program will be successful in pursuing advanced degrees in engineering or related fields.

### **Student Learning Outcomes**

UWF Computer Engineering graduates should be able to have 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 develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

#### **Communication**

- An ability to communicate effectively with a range of audiences.

#### **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 function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- 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.

## **Assessment of Student Learning Outcomes**

The Department of Electrical & Computer Engineering uses the following assessment tools to determine the outcome achievements for Computer 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 Computer Engineering Graduates**

Computer engineers find career opportunities in a wide variety of companies or organizations involving the design, development, building, testing, and operation of computer systems. Computer engineers deal with both hardware and software (programming) problems. In designing a computer system, computer engineers must decide how much of the computer logic to put into hardware and how much to put into software. The work of the computer engineers and computer scientists is closely related. Computer engineers tend to be more involved with the computer hardware, whereas computer scientists tend to be more involved with the computer software and less emphasis on hardware. The typical job functions include research, design, development, and testing of computer or computer-related equipment for commercial, industrial, military, or scientific use. Computer Engineers may supervise the manufacturing and installation of computer or computer-related equipment and components. According to the US Federal Bureau of Labor Statistics, the demand for computer engineering is expected to continue growing. Computer Engineering graduates typically rank among the highest paid professionals.

***Find out more about Computer Engineering at UWF:***

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