

## Mechanical Engineering

### Mission Statement

*The mission of the Department of Engineering is to offer baccalaureate degree programs of excellence in engineering that serve the needs of the west Florida region, the state, and the nation. The goal of the baccalaureate degree programs is to prepare students to embark upon a professional career in electrical engineering, computer engineering, mechanical engineering, or to pursue graduate study. The department will seek ABET accreditation for the Bachelor of Science in Mechanical Engineering program as soon as it graduates its first cohort of students or shortly thereafter.*

### Student Learning Outcomes

UWF Mechanical 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 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 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 objectives.

## **Assessment of Student Learning Outcomes**

The Department of Mechanical Engineering uses the following methods to assess student learning: (1) A major capstone design set of courses in which students apply what they have learned, (2) a three-year cycle of direct assessment of student work, which includes exams, reports, and speech assessments, (3) exit interviews of every graduating senior, (4) alumni surveys, (5) employer surveys.

## **Employment Opportunities for Mechanical Engineers Graduates:**

Mechanical Engineers can fill a wide range of jobs including, but not limited to, mechanical engineer, quality engineer, engineering manager, design engineer, and manufacturing engineer. There are also many industries that hire mechanical engineers. 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 Mechanical Engineers is expected to grow both regionally and nationally. Mechanical Engineering is consistently one of the top majors for high starting salaries.

***Find Out More about Mechanical Engineering at UWF:***

Mechanical Engineering

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