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
- Recognize, interpret, and apply concepts of mathematics, science, and engineering
- Recognize and describe contemporary issues
- Apply principles of engineering, basic science, and mathematics (including multivariate calculus and differential equations) to model, analyze, design, and realize physical systems, components, or processes

Critical Thinking
- Identify and apply the techniques, skills, and modern engineering tools necessary for engineering practice
- Identify, formulate, and solve engineering problems
- Design and conduct experiments, as well as evaluate and interpret data
- Prepare students to work professionally in either thermal or mechanical systems

Communication
- Identify and apply the skills necessary to communicate effectively
- Recognize the need for, and able to engage in, life-long learning

Integrity/Values
- Recognize professional and ethical responsibility
- Recognize the impact of engineering solutions in a global, economic, environmental, and societal context

Project Management
- Identify and apply the skills necessary to function on multidisciplinary teams
• 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

Evaluation of Student Learning Outcomes
The engineering department 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 3-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 Mechanical Engineering Graduates
Mechanical engineers find career opportunities in a wide area of settings such as aerospace, manufacturing, energy, environment, transportation, materials, and structures, and public-sector positions with federal, state, and local governments. The typical job applies the principles of engineering, materials science, thermal sciences, mechanics, mathematics and physics for the design, analysis, manufacturing, and maintenance of mechanical systems. According to the US Federal Bureau of Labor Statistics, the demand for mechanical engineering is expected to continue growing. Mechanical Engineering graduates typically rank among the highest paid professionals.

Find Out More about Mechanical Engineering:
http://uwf.edu/ME

MECHANICAL ENGINEERING College of Science and Engineering