

B.S. in Mechanical Engineering

Mechanical Engineering is a well-established engineering discipline that involves state-of-the-art engineering analysis, design, and research. Mechanical engineers have been in demand for literally hundreds of years and remain one of the more sought-after degree holders.

The Mechanical Engineering program offers four areas of concentration (AOC), or tracks: Biomedical Systems, Energy Systems, High Performance Vehicles, and Robotics and Autonomous Systems (with an emphasis in Uncrewed and Autonomous Vehicle Systems). These tracks are integrated with a comprehensive range of Mechanical Engineering subjects, such as machine design, heat transfer, and vibrations. Mechanical Engineering students have exceptional experiential learning opportunities including internships, research projects, and numerous student competitions.

- The Biomedical Systems track prepares students for scientific discovery and technology innovation in the bioengineering and biomedical fields.
- The Energy Systems track prepares students to design, develop and evaluate energy-related projects to reduce cost and improve energy efficiency.
- The High Performance Vehicles track prepares students for employment in vehicle design and manufacturing, from competition vehicles to fuel-efficient and environmentally friendly vehicles. Subjects include aerodynamics, vehicle dynamics and design.
- The Robotics and Autonomous Systems track prepares students for the rapidly expanding robotics field, including applications to the aerospace industry. Attention is paid to the systems nature of robotics to include the integration of mechatronics.

The Program Educational Objectives of the Mechanical Engineering program as offered at the Daytona Beach campus are that, in a few years of graduation, our graduates:

1. Are established as engineers in the aerospace, aviation, automotive, biomedical, energy, robotics, or related fields or engaged in advanced studies
2. Have demonstrated their ability to work effectively and responsibly as practical problem solvers, innovators and as members of diverse professional teams

The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The curriculum is designed to accomplish these objectives with a base of math, sciences, and engineering. The culmination of the program is a two-semester design project that prepares the students for working in a team environment on projects involving mechanical engineering.

Degree Requirements

The Bachelor of Science in Mechanical Engineering requires the successful completion of a minimum of 129 credit hours. A minimum cumulative grade point average of 2.0 is required for all work completed with the University.