

Mechanical Engineering Technology Student Learning Outcomes

The following student-learning outcomes are appropriate for all graduates of associate degree and baccalaureate degree program options in the Department. Associate degree graduates will attain a fundamental competency in each of these categories, while baccalaureate degree graduates will reach a higher level of achievement, as appropriate for that degree.

Mechanical Engineering Technology program graduates will demonstrate:

A. Technical Skills and Knowledge.

1. the application of principles of engineering materials, applied mechanics, and applied fluid sciences.
2. the application of manufacturing processes, machine design, instrumentation and automation.
3. the application of concepts of technical graphics, computer-aided drafting, design, and modeling.
4. understanding of fundamentals of applied thermal sciences, basic electronics, industrial controls, and computer programming.

B. Creative Design, Application, and Lifelong Learning.

1. ability to analyze, design, test, and implement mechanical systems and processes.
2. ability to design, conduct, and interpret experiments.
3. application of applied physics and chemistry to mechanical systems and processes in a rigorous mathematical environment at or above the level of algebra and trigonometry.
4. ability to be life-long learners.
5. commitment to quality and continuous improvement

C. Communication.

1. ability to write clear and effective technical reports, proposals, and business correspondence.
2. ability to communicate orally technical information to a variety of audiences.

D. Professional Behavior in a Diverse World.

1. understanding and respect for diversity in the workplace and the importance of working effectively as teams.
2. awareness and understanding of the impact of technology on society.

E. Professional Development.

1. ability to apply project management techniques to mechanical and manufacturing systems.
2. ability to practice professional ethics and social responsibility.