

MET Program Mission, Vision, Objectives, and Outcomes

MET Mission

The primary mission of the Mechanical Engineering Technology (MET) Program at Penn State Harrisburg is to prepare undergraduate students for successful careers in mechanical engineering technology-related industries. Through the integrated efforts of faculty, staff, and administration, the mission of the MET Program remains consistent with the mission of the University.

The Program focuses on an applied team-based approach to engineering problem-solving that is founded on scientific principles, utilizes state-of-the-art equipment and software, requires effective oral and written communication, and responds to changing conditions in the marketplace. As effective educators, our faculty members engage in scholarly activities in order to stay current and pursue research initiatives in various fields of expertise. The Mechanical Engineering Technology Program prepares students to meet changing industrial and professional needs, and it will be revised accordingly to meet those needs.

MET Vision

The Mechanical Engineering Technology Program will remain the premier regional mechanical engineering technology degree and will be among the best nationally.

MET Objectives

The objectives of the Mechanical Engineering Technology Program are broadly defined to reflect the nature of the mechanical profession. The Program is designed, executed, and continuously improved in order to prepare students to:

- work in industrial and governmental organizations that create, design, improve, and maintain products, processes, and systems that are integral to national and international economies.
- work and lead multidisciplinary teams that are charged to design sustainable and environmentally considerate power systems, heating, ventilating, air-conditioning, and refrigeration systems, machines, automation and control systems, consumer products, and manufacturing processes.
- stay current through continuing education opportunities, professional conferences, and other self-learning experiences; have the ability to obtain and maintain professional licensing; and have the ability to attend graduate school.

MET Program Outcomes

- a. Students master the knowledge and skills to use state-of-the-art computational, analytical, computer-aided design tools and techniques, including modeling, simulation software, and thermal analysis, for solving engineering problems.

- b. Students have the ability to apply knowledge and adapt to emerging mathematics, physical sciences, engineering, and technology applications.
- c. Students have the ability to conduct, analyze, and interpret experiments and utilize their results for system, product, or process improvements.
- d. Students have the ability to apply creativity in the mechanical design of systems, products, or processes.
- e. Students have the ability to function as team members and leaders.
- f. Students have the ability to identify, define, analyze, and solve Mechanical Engineering Technology problems.
- g. Students have the ability to develop effective written and oral communication skills in class assignments.
- h. Students develop the ability to engage in lifelong learning for personal or professional improvement.
- i. Students have the ability to explore the professional, ethical, or social responsibilities of engineering technologists.
- j. Students have the opportunity to develop respect for and knowledge of social and cultural diversity as they address local, regional, or global issues.
- k. Students have the ability to demonstrate their commitment to quality, continuous improvement, and time management.
- l. Students have the ability to utilize practical skills in manufacturing processes, mechanical measurements, instrumentation, data analysis, and machine control.



For more information

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