MANUFACTURING ENGINEERING TECHNOLOGY

The Manufacturing Engineering Technology major integrates meaningful learning experiences in applied engineering, science and advanced manufacturing to provide a practical education that prepares career-ready graduates for success in a range of high-demand STEM field opportunities that exist locally, regionally, nationally and internationally. The program is balanced with general education components so that graduates develop critical thinking, writing and communication skills to support advancement throughout their careers.

DEGREES/MINOR

BACHELOR OF SCIENCE (B.S.)

Manufacturing Engineering Technology (MFET)

Students in the major are introduced to the fundamentals of engineering, materials and production processes used within industry. The program provides in-depth technical content in advanced manufacturing, with an emphasis on automated manufacturing and computer-integrated manufacturing. Students get to design, develop and construct projects in laboratory-based courses. Technologies commonly used in industry are emphasized throughout the curriculum. Seniors are encouraged to participate in a cooperative education or internship experience to further enhance their knowledge in technical areas within an industrial environment.

ASSOCIATE OF TECHNOLOGY (A.T.)

Advanced Manufacturing Technology (AET-AMT)

The AET-AMT is a two-year degree program that shares many of its technical courses with the MFET degree. This abbreviated program is for those individuals who need the hands-on experience with the devices, tools and technology related to manufacturing but don't need the management preparation. We designed the associate degree program to get students the education they need in a hurry, and it also can be applied seamlessly towards a bachelor's degree in Manufacturing Engineering Technology in the future.

MINOR IN ADVANCED MANUFACTURING TECHNOLOGY

Students who minor in Advanced Manufacturing Technology complete 18 credits of technical courses. Four of these are core materials, manufacturing and computer-aided design classes, with the option of advanced study in polymers and ceramics, wood technology and computer numerical control (CNC).

TOP 3 REASONS TO CHOOSE MANUFACTURING ENGINEERING TECHNOLOGY

1. Despite misconceptions that "manufacturing is dead" or that "all manufacturing has moved overseas," the National Network for Manufacturing Innovation (commonly known as Manufacturing USA) estimates that the manufacturing workforce employs approximately 12.8 million people nationwide.
2. Manufacturers in Pennsylvania account for nearly 12% of the total output in the state and employ around 9.5% of the workforce.
3. Regional demand for the skill sets of graduates is exceptional (PA 2018-2028 Long-Term Projections for Regional Employment).

National Association of Manufacturers (2019)

Millersville University

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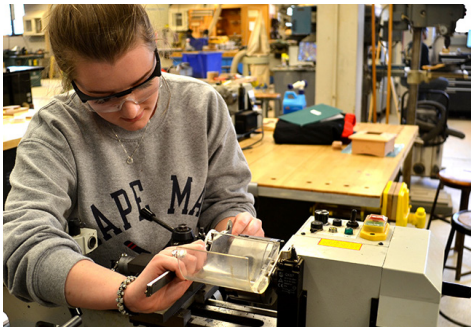

CLUBS AND ACTIVITIES

The AEST department has 10 student organizations, each offering motivated students opportunities to gain experience in the technical areas they are studying. MFET students may choose to get involved with the following:

SME – Millersville University. SME **(formerly the Society of Manufacturing Engineers)** is an organization for individuals, students, educators and companies involved in all facets of manufacturing. Founded in 1932, it is dedicated to advancing and educating the manufacturing industry. SME focuses its efforts on several areas of manufacturing: aerospace and defense, energy, medical, and motorized vehicles.

'Ville Robotics Team – Association of Technology, Management & Applied Engineering
'Ville Robotics is a widely respected student organization that has earned more than 45 top awards in national and international robotics competitions. The team boasts winning six national championship titles to date. Team members participate in all aspects of robotics, from ideation and design through fabrication and testing. All team members are welcome to travel to national and international events to compete in top-level competitions.

Epsilon Pi Tau (EPT) – Beta Phi Chapter. Epsilon Pi Tau is an international honor society for professions in technology. At Millersville, this includes Engineering Technology, Technology & Engineering Education, Applied Engineering & Technology Management, and Occupational Safety & Environmental Health majors.

FACILITIES FOR MFET

MFET students learn in state-of-the-art facilities as they complete their degrees. Some of the facilities for MFET students are:

- Metallics Lab
- Woods Lab
- Polymers & Ceramics
- Materials & Testing
- CADD & 3D Printing
- Electronics
- Robotics & Automation
- Fluid Power

Dr. Alex Johnson is the program coordinator for the Manufacturing Engineering Technology degree program.

For more information or if you have questions about this program, email Alex.Johnson@millersville.edu.

OUR GRADUATES SAY...

"I am a systems engineer, and I develop appropriate solutions to support customer problems, which often include programming a robot and vision system, CAD design of mechanical components and specification of vendor-supplied equipment. Each system job has its own unique characteristics and requirements, which allows me to work on a new problem every day. My time as an undergraduate taught me that you do not have to know every answer to everything, but you have to know how to find a solution and solve the problem."

– Sawyer Bisker '14

"The Manufacturing Engineering Technology degree gave me a good foundation to explore a number of different fields and occupations. I have flexibility to find good opportunities in the manufacturing sector no matter what kind of changes the future brings."

– Merrit Marks '21

TITLES OF RECENT MFET GRADS

When MFET graduates complete their studies at Millersville University, they embark on careers that have limitless potential. Here are some of the job titles MFET graduates reported in a 2021 survey of recent department graduates:

- Assistant Plant Manager
- Associate Engineer
- Clinical Specialist
- Director of Operations
- Engineering Technician
- Fabrication Manager
- Manufacturing Engineer
- Program Director
- Project Engineer
- Purchasing Supervisor
- Quality Engineer
- Regional Manager
- Supervisor of Safety
- VP of Manufacturing

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