

# ADVANCED MANUFACTURING



*"Whether it be at a company or my own business, I feel as though I am capable of supporting myself financially with the knowledge I have gained over the past years..."*

*—graduating senior*

**Manufacturing is a matter of fundamental importance to the economic strength and national security of the United States. More than any other industry, a globally competitive manufacturing sector translates inventions, research**

**discoveries, and new ideas into better or novel products or processes.** (Source: National Network for Manufacturing Innovation, [manufacturing.gov](http://manufacturing.gov))

## DEGREES/MINOR

### BACHELOR OF SCIENCE (B.S.)

#### **Applied Engineering and Technology Management (AETM)**

The **Advanced Manufacturing Technology** concentration prepares students for an ever-changing workplace that is increasingly driven by advanced technology. The new era of manufacturing is cleaner, more precise and more efficient than ever before. It relies on innovation and highly skilled workers capable of synchronizing multiple aspects of product design, material processing and resource management. Coursework includes theoretical principles and hands-on experiences with processing all categories of materials, computer-aided design and machining technologies, the principles of efficient process design and management and business skills necessary to compete in 21<sup>st</sup> century industry.

### ASSOCIATE OF TECHNOLOGY (A.T.)

#### **Applied Engineering and Technology (AET)**

The **Advanced Manufacturing Technology** concentration associate degree prepares students equally well for technical proficiency in modern manufacturing environments. The curriculum mirrors the AETM program, but does not include the same degree of business and management coursework. Transfer into the AETM program is seamless if desired later on.

### MINOR IN ADVANCED MANUFACTURING

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).

## 3 Reasons to choose Advanced Manufacturing

### AT MILLERSVILLE UNIVERSITY

1. Modern manufacturing requires technological skills
2. You get to do what you learn about
3. Get a broad range of skills and experience that make you highly employable





## INTERNSHIP OPPORTUNITIES

Advanced Manufacturing internships combine the student's academic, technical and management preparation with actual on-the-job experiences in production facilities ranging from custom piecework to high-volume operations. Internships involve a significant management component and students are required to engage in management-related activities such as planning, organizing, directing, and supervision at the workplace. The student, the employer, and the Department of Applied Engineering, Safety & Technology faculty work cooperatively to assure the internship experience achieves the best possible learning value.

## CLUBS & ACTIVITIES

**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.

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



*SME student group during Christmas toy donation.*

## ABOUT OUR GRADUATES

Advanced Manufacturing graduates can fulfill a diverse range of needs in manufacturing including manufacturing engineers, technical sales, industrial trainers and as supervisors/ managers of technical operations. A sampling of job titles held by Advanced Manufacturing graduates include the following:

- Manufacturing Engineer
- Project Engineer
- Process Engineer
- Quality Engineer
- Company President
- Director of Operations
- Engineering Technician
- Mechanical Designer

## FACILITIES

Laboratory facilities include manual and automated production equipment and computer-aided design and machining software. We have computer numerical control (CNC) machining capabilities in each of our manufacturing labs. Specific facilities include:

- Metal Processing
- Wood Processing
- Polymer and Ceramic Processing
- Materials Testing and Analysis
- Computer Labs with Latest Software

## ACCREDITATION

Applied Engineering & Technology Management degrees are accredited by The Association of Technology Management and Applied Engineering (ATMAE).

### FOR INFORMATION CONTACT:

**Department of Applied Engineering, Safety & Technology**  
P.O. Box 1002 • Millersville, PA 17551  
[www.millersville.edu/aest](http://www.millersville.edu/aest)  
[AEST@millersville.edu](mailto:AEST@millersville.edu)  
717-871-7237