

Manufacturing Engineering Technology

The Manufacturing Engineering Technology major focuses on the application of engineering principles to manufacturing processes and systems. Students learn to design, implement, and optimize production systems, emphasizing efficiency, quality control, and safety. Graduates are equipped with practical skills in areas like automation, production management, and materials processing. Typical industry sectors for this major include automotive manufacturing, aerospace, electronics, consumer goods, and industrial equipment, where graduates help improve manufacturing workflows and product quality.

Job Title Examples:

- Manufacturing Engineer
- Production Planner
- Quality Control Technician
- Process Improvement Specialist
- Industrial Engineer
- Operations Coordinator
- Assembly Line Supervisor
- Materials Planner
- Automation Technician
- Manufacturing Systems Analyst

Hard and Soft Skills Needed:

Hard Skills:

1. CAD (Computer-Aided Design)
2. Process Optimization
3. Lean Manufacturing
4. Statistical Process Control (SPC)
5. Materials Science

Soft Skills:

1. Problem-Solving
2. Communication
3. Time Management
4. Team Collaboration
5. Attention to Detail

Further Education/Training Required and/or Suggested:

A BS in Manufacturing Engineering Technology qualifies students for entry-level positions, but additional training or certifications can enhance career prospects:

To Enter the Field:

1. Certified Manufacturing Technologist (CMfgT):
 - Offers credibility and knowledge for entry-level roles.

To Advance:

1. Certified Manufacturing Engineer (CMfgE):
 - For those aiming for senior engineering roles in manufacturing.
2. Six Sigma Certification:
 - Valuable for roles focused on process improvement and quality control.
3. Certified Quality Engineer (CQE):
 - Enhances qualifications for quality-focused roles in manufacturing.

Summary:

Certifications like CMfgT, CMfgE, Six Sigma, or CQE can improve job prospects and advancement in manufacturing engineering technology.

Professional or Student Associations:

- Society of Manufacturing Engineers (SME)
- American Society for Quality (ASQ)
- National Association of Manufacturers (NAM)
- Association for Manufacturing Excellence (AME)
- Society of Women Engineers
- National Society of Black Engineers