

# Mechanical Engineering Technology



Engineering • Manufacturing • Industrial Technology

Career Pathways

The associate of applied science degree with specialization in mechanical engineering technology offers individuals the opportunity to prepare for rewarding and responsible careers in support of technical and engineering activities in business and industry.

The mechanical engineering technology curriculum is based on engineering theory, but emphasis is placed on application, implementation skills and computer modeling. The mechanical engineering technologist is responsible for the application and implementation of engineering design methods and analysis techniques for the improvement of products, processes, and systems.

Course work within the program includes automation manufacturing processes, strength of materials, computer-aided drafting, computer-aided manufacturing, machine design, quality and thermodynamics. The rapid increase in complexity of technology has produced a demand for professionals who have multi-disciplined applied technical skills. Our Mechanical Engineering Technology graduates have skills to meet that demand.

Graduates of this program meet the minimum requirements for placement at the junior level of bachelor of engineering technology programs at many four-year institutions or may seek immediate employment in industry. Students planning to transfer to a four-year program should consult with that institution in order to insure the maximum number of courses transfer. Graduates of this program will be prepared for entry-level employment in the following areas:

- Mechanical engineering technician
- Product designer
- Field technician
- Lab technician
- Test technician
- Basic machinist
- Research and development technician
- Technical sales representative

In addition to completion of the required general education courses, students desiring the program designation on their transcript must complete the required core and specialized courses.

Credits

## Required General Education Courses 19

ENGL 151 (English Composition).....	3
ENGL 155 (Technical Writing).....	3
POLSC 151 (Introduction to Political Science).....	3
MATH 160 (Math Applications in Engineering Technology).....	2
<sup>1</sup> MATH 164 (Precalculus).....	4
PHY 151 (General Physics I).....	4

## Required Core Courses 49

### First Semester

<sup>2†</sup> MDTC 160 (Mechanical Drafting and CAD I).....	4
MECH 102 (Manufacturing Processes).....	4
ELEC 125 (Introduction to Electricity).....	3

### Second Semester

† MECH 103 (Basic Machine Tools).....	4
† MECH 131 (Introduction to Automation).....	3
MATL 101 (Industrial Materials).....	3
METC 170 (Introduction to Parametric CAD/CATIA).....	3

### Spring/Summer Semester

MECH 201 (Introduction to CAD/CAM) or ELEC 141 (Industrial Automation and Process Control).....	3
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### Third Semester

QSTC 115 (Statistical Process Control) or MDTC 226 (Geometric Dimensioning and Tolerancing).....	3
METC 220 (Statics & Strength of Materials).....	4
MECH 111 (Introduction to Fluid Power).....	3

### Fourth Semester

METC 210 (Computer Applications in Machine Design).....	4
METC 234 (Thermodynamics and Fluid Sciences).....	4
PHY 152 (General Physics II) or CHEM 151 (General College Chemistry I).....	4

## Total Degree Requirements 68

† Tech Prep course. See page 14.

<sup>1</sup> Students may also take MATH 157 and MATH 159 in place of MATH 164.

<sup>2</sup> Meets computer skills requirement.

While the above math and physics courses provide adequate preparation for technician-level work, students who intend to transfer into a bachelor of science degree program in mechanical engineering technology should consider taking the calculus (MATH 171, 172) sequence and engineering physics (PHY 251, 252) sequence.