

ENGINEERING TECHNOLOGY: MECHANICAL ENGINEERING TECHNICIAN (CERT)

CERTIFICATE OF ACHIEVEMENT

The Engineering Technology program prepares students for employment in technical fields. By completing the certificate, students acquire knowledge of the fundamentals of engineering technology and are able to specialize in one of three options. The first option is Electrical and Electronic Engineering Technology, the second option is Mechanical Engineering Technology and the third option is Industrial Engineering Technology. Careers in engineering technology involve assisting engineers in researching, developing, manufacturing, servicing, and maintaining a wide variety of products.

Program Student Learning Outcomes

- Student read blueprints up to Industry Standards
- Student applies principle of Geometric Dimensioning and Tolerancing in manufacturing
- Student develop machine tools maintenance program and perform maintenance of industrial equipment
- Student select appropriate materials based on design usage, loads and conditions
- Student interpret P&ID diagrams and implement and troubleshoot process control
- Student design, implement and troubleshoot industrial motors control

Program Requirements

Code Number	Course Title	Units
Major Core Requirements		
ET 101	Principles of Engineering Technology	3.0
ET 103	Industrial Process Control	2.0
ET 105	Industrial Motor Control	2.0
ENGT 103	Introduction to Engineering Design Using Inventor	3.0
Additional Required Electives		
ENGT 259	Solidworks Introduction	4.0
ENGT 111	Plastics Technology	3.0
ENGT 116	Blueprint Reading and Production	4.0
ENGT 117	Geometrical Dimensioning and Tolerancing and Model Based Definition	4.0
MTT 100	Machine Tool Introduction	2.0
Total Units		27

Recommended Courses

Code Number	Course Title	Units
ENGT 100	Soft Skills for Manufacturing, Technology and Engineering Professionals	3.0
ENGT 102	Arduino for Internet of Things (IoT) and Embedded Systems Design	2.0
ENGT 104	Principles of Aerospace Design Technology	4.0

ENGT 105	Product Design, Development, and Prototype Fabrication	2.0
ENGT 106	Introduction to Drone Technology	4.0
ENGT 153	Machine Design Applications Using Solid Modeling	3.0
ENGT 237	Statics and Strength of Materials Using Simulation	3.0
ENGT 258	Tools and Fixtures Applications Using Solid Modeling	4.0
ENGT 260	Advanced Modeling Using SolidWorks	4.0
ENGT 261	SolidWorks for Sustainable Design	4.0
ENGT 262	SolidWorks for Weldments Design	4.0
ENGT 263	SolidWorks for Industrial Mold Tools Design	4.0