

Pre-Engineering Technology

Jackson Center

2 Year Program

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This STEM-based program of study includes development and reading of mechanical engineering production drawings through the extensive use of hand-drafting, 2D Computer-Aided Drafting (CAD), and 3D CAD Solid Modeling technologies to design, draw and verify quality control. Students also learn 3D-Printing Prototyping, Computer-Aided Manufacturing (CAM), Computer Numerical Controlled Machining (CNC) with G-Code Programming, robotics and hand fabrication tools and methods.

Related Job Titles

CNC Operator/Programmer
CADD Draftsperson/Technician
3D-Printing Technician

Skills You Will Learn

- Print Reading
- Math for manufacturing
- Drafting of technical/mechanical components (CADD & hand)
- 3D-Printer prototyping
- G-Code programming
- CNC machining
- Automation (Robotics)

Preferred Skills for Career Field:

You should prefer:

- Doing detailed work
- Being organized
- Continuing professional development

You should be able to:

- Apply algebra and geometry to solve mathematical problems
- Read and comprehend technical information and drawings

Career Ladder

CNC operators or CADD technicians with several years of experience may advance to supervisory positions. They may also become programmers of CNC machining tools. All trade areas can continue their education to become Professional Engineers, Estimators or Field Technicians of CNC and Automation Robotic equipment.

Continuing Education

Ocean County College
New Jersey Institute of Technology
Rutgers University
Rowan University
University of Northwestern Ohio