This STEM-based program of study includes development and reading of mechanical engineering drawings through the extensive use of hand-drafting, 2D Computer-Aided Drafting (CAD), and 3D CAD Solid Modeling technologies to design, draw and specify quality controls. Additional studies include OSHA Safety, Additive Manufacturing (3D printing), application, development and programming of task and industrial Robotics, and use of precision measuring instruments and small hand and power fabrication tools.

Related Job Titles
CADD Draftsperson/Technician
Robotic Operator/Technician
Additive Manufacturing Technician

Skills You Will Learn
- Print reading
- Technical drawing using CAD
- Additive manufacturing (3D-printing)
- Task robotic development
- Task & industrial robotic programming
- Industrial robotic arm work cell layout
- Precision measuring and mathematics
- Use of small hand and power tools
- OSHA safety

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
CADD draftspersons/technicians with several years of experience may advance to supervisory positions. Robotic operators/technicians can advance to programmers or designers. Technician can continue their education to become Estimators, Field Technicians, Engineers, or Licensed Professionals.

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

Revised 11/2019