

Industry Credentials, Concentration Sequences, and Career Clusters

Manufacturing Systems I (8425)

Industry Credentials:

These apply only to 36-week courses

- Business Certificate for Manufacturing Examination
- Certified Production Technician (CPT) 4.0 Assessment
- College and Work Readiness Assessment (CWRA+)
- Manufacturing Technician Level 1 (MT1) Certification Examination
- National Career Readiness Certificate Assessment
- Pre-Manufacturing Technician 1 (Pre-MT1) Examination
- Stratasys Additive Manufacturing Certification–Level 1 Examination
- Workplace Readiness Skills for the Commonwealth Examination

Concentration Sequences:

*A combination of this course and those below, equivalent to two 36-week courses, is a **concentration sequence**. A **program completer** is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program. Students wishing to complete a specialization may take additional courses based on their career pathways.*

- Construction Technology (18 Weeks)
- Construction Technology (36 Weeks)
- Manufacturing Systems II, Advanced
- Materials and Processes Technology (18 Weeks)
- Materials and Processes Technology (36 Weeks)
- Production Systems (18 Weeks)
- Production Systems (36 Weeks)
- Sustainability and Renewable Technologies
- Technical Drawing and Design (18 Weeks)
- Technical Drawing and Design (36 Weeks)
- Technology Foundations (18 Weeks)
- Technology Foundations (36 Weeks)
- Technology of Robotic Design (18 Weeks)

- Technology of Robotic Design (36 Weeks)

Career Clusters, Career Pathways, and Occupations:

- Manufacturing
 - Health, Safety, and Environmental Assurance
 - Occupational Health and Safety Specialist
 - Safety Engineer
 - Logistics and Inventory Control
 - Dispatcher
 - Logistician
 - Materials Handler
 - Shipping and Receiving Clerk
 - Manufacturing Production Process Development
 - Electro-Mechanical Technician
 - Industrial Engineer
 - Industrial Engineering Technician
 - Manufacturing Systems Engineer
 - Millwright
 - Precision Inspector, Tester, or Grader
 - Production Manager
 - SPC (Statistical Process Control) Coordinator
 - Production
 - Assembler
 - Automated Manufacturing Technician
 - Extruding and Drawing Machine Operator
 - Tool and Die Maker
 - Quality Assurance
 - Calibration Technician
 - Precision Inspector, Tester, or Grader
 - Quality Control Technician
 - SPC (Statistical Process Control) Coordinator
- Science, Technology, Engineering and Mathematics
 - Engineering and Technology
 - Computer Programmer
 - Electrical Engineer
 - Electrical Engineering Technician
 - Electro-Mechanical Technician

- Electronic Drafter
- Electronics Engineering Technician
- Human Factors Engineer
- Industrial Engineer
- Industrial Engineering Technician
- Manufacturing Systems Engineer
- Materials Engineer
- Mechanical Drafter
- Mechanical Engineer
- Mechanical Engineering Technician
- Power Systems Engineer
- Project Manager
- Quality Engineer
- Quality Technician