

Industry Credentials, Concentration Sequences, and Career Clusters

Manufacturing Systems II, Advanced (8427)

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 Specialist Certification Examination
- Manufacturing Technician Level 1 (MT1) Certification Examination
- Manufacturing Technology Assessment
- Mechatronics Systems Certification Examinations
- National Career Readiness Certificate Assessment
- Pre-Manufacturing Technician 1 (Pre-MT1) Examination
- Smart Automation Associate Certifications: C-101 Certified Industry 4.0 Associate-Basic Operations
- Smart Automation Associate Certifications: C-102 Certified Industry 4.0 Associate-Advanced Operations
- 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.*

- Manufacturing Systems I (18 Weeks)
- Manufacturing Systems I (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
- 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
 - Assembler
 - Computer Hardware Engineer
 - Electrical Engineering Technician
 - Electro-Mechanical Technician
 - Electronics Engineering Technician
 - Human Factors Engineer
 - Industrial Engineer
 - Industrial Engineering Technician
 - Manufacturing Systems Engineer
 - Materials Engineer

- Mechanical Drafter
- Mechanical Engineer
- Mechanical Engineering Technician
- Network Systems and Data Communication Analyst
- Power Systems Engineer
- Quality Technician