

# 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