

# Industry Credentials, Concentration Sequences, and Career Clusters

## Manufacturing Systems II (8427)

### Industry Credentials:

*These apply only to 36-week courses.*

- Additive Manufacturing Fundamentals Examination
- Business Certificate for Manufacturing Examination
- Certified Production Technician (CPT) Program Examinations
- College and Work Readiness Assessment (CWRA+)
- Manufacturing Specialist Certification Examination
- Manufacturing Technician Level I Certification Examination
- Manufacturing Technology Assessment
- Mechatronic Systems Certification Examinations
- National Career Readiness Certificate Assessment
- Pre-Manufacturing Technician I (Pre-MT1) Examination
- Rapid Prototyping and 3D Design Beginner Certification Examination
- Stratasys Additive Manufacturing Certification
- 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 (8425/36 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