

# Industry Credentials, Concentration Sequences, and Career Clusters

## Manufacturing Systems I (8426)

### 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