

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