

Industry Credentials, Concentration Sequences, and Career Clusters

Technology Foundations (8402 / 8403)

Industry Credentials:

These apply only to 36-week courses.

College and Work Readiness Assessment (CWRA+)
National Career Readiness Certificate Assessment
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.*

Aerospace Technology I (8487/36 weeks)
Communication Systems (8415/36 weeks)
Communication Systems (8418/18 weeks)
Electronics Systems I (8416/36 weeks)
Electronics Systems I (8417/18 weeks)
Engineering Explorations I (8416/36 weeks)
Entertainment Design and Technology (8489/36 weeks)
Forensic Technology (8409/36 weeks)
Manufacturing Systems I (8425/36 weeks)
Manufacturing Systems II (8426/18 weeks)
Materials and Processes Technology (8433/36 weeks)
Materials and Processes Technology (8478/18 weeks)
Power and Transportation (8445/36 weeks)
Power and Transportation (8444/18 weeks)
Production Systems (8447/36 weeks)
Production Systems (8446/18 weeks)
Sustainability and Renewable Technologies (8414/36 weeks)
Technical Drawing and Design (8434/18 weeks)
Technical Drawing and Design (8435/36 weeks)
Technology Assessment (8406/18 weeks)
Technology Assessment (8407/36 weeks)
Technology of Robotic Design (8421/36 weeks)

Technology of Robotic Design (8420/18 weeks)

Technology Transfer (8404/18 weeks)

Technology Transfer (8405/36 weeks)

Career Clusters, Career Pathways, and Occupations:

- Agriculture, Food, and Natural Resources
 - Environmental Service Systems
 - Environmental Sampling and Analysis Technician
 - Hazardous Materials Handler
 - Recycling Coordinator
 - Water Conservationist
 - Natural Resources Systems
 - Ecologist
 - Forest Manager, Forester
 - Forest Technician
 - Wildlife Manager
 - Plant Systems
 - Crop Grower
 - Plant Breeder / Geneticist
 - Soil and Plant Scientist
- Architecture and Construction
 - Design/Pre-construction
 - Architect
 - Civil Engineer
 - Cost Estimator
 - Landscape Architect
- Arts, Audio/Video Technology, and Communications
 - Audio and Video Technology and Film
 - Editor
 - Producer
 - Sound Engineering Technician
 - Journalism and Broadcasting
 - Art Director
 - Editor
 - Program Director
 - Radio, TV Announcer
 - Radio, TV Reporter
 - Printing Technology
 - Production, Planning, Expediting Clerk
 - Telecommunications
 - Computer Programmer
 - Network Systems and Data Communication Analyst
- Business Management and Administration
 - Business Information Management
 - Chief Executive Officer

- Cost Analyst
 - Financial Analyst
 - Market Research Analyst
 - Operations Research Analyst
 - Systems Analyst
 - General Management
 - Chief Executive Officer
 - Entrepreneur
- Finance
 - Business Finance
 - Cost Analyst
 - Economist
 - Securities and Investments
 - Real Estate Developer
- Government and Public Administration
 - Governance
 - Legislator
 - Planning
 - Economic Development Coordinator
 - Urban and Regional Planner
 - Regulation
 - Compliance Officer
 - Environmental Compliance Inspector
- Health Science
 - Biotechnology Research and Development
 - Biochemist
 - Research Assistant
- Manufacturing
 - Health, Safety, and Environmental Assurance
 - Safety Engineer
 - Manufacturing Production Process Development
 - Industrial Engineer
 - Industrial Engineering Technician
- Science, Technology, Engineering, and Mathematics
 - Engineering and Technology
 - Agricultural Engineer
 - Biomedical Engineer
 - Civil Engineer
 - Civil Engineering Technician
 - Environmental Engineer
 - Industrial Engineer
 - Industrial Engineering Technician
 - Materials Engineer
 - Nuclear Engineer
 - Power Systems Engineer
 - Science and Mathematics

- Atmospheric Scientist
 - Ecologist
 - Economist
 - Environmental Scientist
 - Geoscientist
 - Hydrologist
 - Oceanographer
 - Research Chemist
 - Technical Writer
- Transportation, Distribution, and Logistics
 - Facility and Mobile Equipment Maintenance
 - Aircraft Structure, Surfaces, Rigging, and Systems Assembler
 - Health, Safety, and Environmental Management
 - Health, Safety, and Environmental Manager
 - Logistics Planning and Management Services
 - Logistics Analyst
 - Logistics Engineer
 - Logistics Manager
 - Transportation Operations
 - Air Traffic Controller
 - Flight Engineer
 - Pilot
 - Ship Engineer
 - Transportation Manager
 - Transportation Systems/Infrastructure Planning, Management and Regulation
 - Aerospace Engineer
 - Civil Engineer
 - Civil Engineering Technician
 - Pilot
 - Traffic Engineer
 - Transportation Manager
 - Urban, Regional Planner
 - Warehousing and Distribution Center Operations
 - Traffic Engineer
 - Transportation Manager