

Industry Credentials, Concentration Sequences, and Career Clusters

Sustainability and Renewable Technologies (8414)

Industry Credentials:

These apply only to 36-week courses.

- College and Work Readiness Assessment (CWRA+)
- 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.*

- Construction Technology (8431/36 weeks)
- Construction Technology (8432/18 weeks)
- Ecology and Environmental Management (8046/36 weeks)
- Energy and Power (8448/36 weeks)
- Energy and Power (8495/18 weeks)
- Fisheries and Wildlife Management (8041/36 weeks)
- Forestry Management (8042/36 weeks)
- Introduction to Natural Resources and Ecology Systems (8040/36 weeks)
- Manufacturing Systems I (8425/36 weeks)
- Materials and Processes Technology (8433/36 weeks)
- Renewable Energy (8408/36 weeks)
- Technology Foundations (8403/36 weeks)
- Technology Foundations (8402/18 weeks)

Career Clusters, Career Pathways, and Occupations:

- Agriculture, Food and Natural Resources
 - Agribusiness Systems
 - Farm, Ranch Manager
 - Farmer/Rancher
 - Animal Systems

- Animal Nutritionist
 - Animal Scientist
 - Aquacultural Manager
 - Poultry Manager
- Environmental Service Systems
 - Environmental Compliance Inspector
 - Environmental Sampling and Analysis Technician
 - Hazardous Materials Handler
 - Recycling Coordinator
 - Water Conservationist
- Natural Resources Systems
 - Ecologist
 - Fish and Game Officer
 - Forest Manager, Forester
 - Forest Technician
 - Geological Technician
 - Park Manager
 - Park Technician
 - Range Technician
 - Wildlife Manager
- Manufacturing
 - Health, Safety, and Environmental Assurance
 - Occupational Health and Safety Specialist
- Science, Technology, Engineering and Mathematics
 - Engineering and Technology
 - Agricultural Engineer
 - Architect
 - Chemical Engineer
 - Civil Engineer
 - Civil Engineering Technician
 - Electrical Engineer
 - Electrical Engineering Technician
 - Electro-Mechanical Technician
 - Engineer
 - Engineering Manager
 - Engineering Technician
 - Environmental Engineer
 - Industrial Engineer
 - Industrial Engineering Technician
 - Landscape Architect
 - Manufacturing Systems Engineer
 - Marine Engineer
 - Materials Engineer
 - Mechanical Engineer
 - Mechanical Engineering Technician
 - Nuclear Engineer

- Petroleum Engineer
 - Power Systems Engineer
 - Statistician
- Science and Mathematics
 - Atmospheric Scientist
 - Botanist
 - Ecologist
 - Environmental Scientist
 - Geoscientist
 - Hydrologist
 - Oceanographer
 - Toxicologist
- Transportation, Distribution and Logistics
 - Logistics Planning and Management Services
 - Logistics Analyst
 - Logistics Engineer
 - Logistics Manager
 - Transportation Systems/Infrastructure Planning, Management and Regulation
 - Civil Engineer
 - Civil Engineering Technician
 - Traffic Engineer
 - Transportation Manager
 - Urban, Regional Planner
 - Warehousing and Distribution Center Operations
 - Traffic Engineer
 - Transportation Manager