

# 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+)
- National Career Readiness Certificate Assessment
- 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.*

- Ecology and Environmental Management
- Forestry Management
- Introduction to Natural Resources and Ecology Systems
- Renewable Energy
- Technology Foundations (18 Weeks)
- Technology Foundations (36 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
- 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
  - 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