

# Industry Credentials, Concentration Sequences, and Career Clusters

## Agricultural Fabrication and Emerging Technologies (8019)

### Industry Credentials:

*These apply only to 36-week courses.*

- Agriculture Mechanics Assessment
- College and Work Readiness Assessment (CWRA+)
- Customer Service Specialist (CSS) Examination
- Flux Core Arc Welding (FCAW) Examination
- Gas Metal Arc Welding Examination
- Gas Tungsten Arc Welding (GTAW) Examination
- National Career Readiness Certificate Assessment
- SENSE Training Program Certification Examination (Level 1, Entry-Level Welder)
- Shielded Metal Arc Welding (SMAW) Examination
- Small Unmanned Aircraft Systems (UAS) Safety Certification Examination
- Welding Assessment
- Welding Examination
- Welding Level One Entry-Level 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.*

- Agricultural Business Fundamentals I (8022/36 weeks)
- Agricultural Power Systems (8018/36 weeks)
- Agricultural Power Systems, Advanced (8020/36 weeks)
- Agricultural Structural Systems (8017/36 weeks)
- Applied Agricultural Concepts (8073/36 weeks)
- Applied Agricultural Concepts (8072/18 weeks)
- Introduction to Power, Structural, and Technical Systems (8016/36 weeks)
- Livestock Production Management (8012/36 weeks)

- Small Engine Repair (8021/18 weeks)
- Small Engine Repair (8082/36 weeks)

## **Career Clusters, Career Pathways, and Occupations:**

- Agriculture, Food and Natural Resources
  - Agribusiness Systems
    - Agricultural Products Sales Representative
    - Farm Products Purchasing Agent and Buyer
    - Farm, Ranch Manager
    - Farmer/Rancher
    - Feed, Farm Supply Store Sales Manager
    - Sales Manager
  - Animal Systems
    - Agricultural Products Sales Representative
    - Animal Breeder, Husbandry
    - Aquacultural Manager
    - Poultry Manager
  - Environmental Service Systems
    - Agricultural Products Sales Representative
    - Environmental Compliance Inspector
    - Environmental Sampling and Analysis Technician
    - Hazardous Materials Handler
    - Recycling Coordinator
    - Secondary School Teacher
    - Toxicologist
    - Turf Farmer
    - Water Conservationist
  - Natural Resources Systems
    - Forest Manager, Forester
    - Forest Technician
    - Geological Technician
    - Logging Equipment Operator
    - Park Manager
    - Park Technician
    - Range Technician
  - Plant Systems
    - Agricultural Products Sales Representative
    - Crop Grower
    - Custom Harvester
    - Farm, Ranch Manager
    - Farmer/Rancher
    - Golf Course Superintendent
    - Machine Setter, Operator
    - Nursery and Greenhouse Manager

- Ornamental Horticulturist
  - Secondary School Teacher
  - Tree Surgeon
  - Turf Farmer
- Power, Structural, and Technical Systems
  - Agricultural Engineer
  - Agricultural Equipment Operator
  - Agricultural Equipment Parts Manager
  - Agricultural Equipment Parts Salesperson
  - Machinist
  - Parts Manager
  - Welder
- Science, Technology, Engineering and Mathematics
  - Engineering and Technology
    - Agricultural Engineer
    - Architect
    - Assembler
    - Civil Engineer
    - Civil Engineering Technician
    - Commercial and Industrial Designer
    - Electrical Drafter
    - Electrical Engineer
    - Electrical Engineering Technician
    - Electro-Mechanical Technician
    - Environmental Engineer
    - Industrial Engineer
    - Industrial Engineering Technician
    - Landscape Architect
    - Machine Setter, Operator
    - Manufacturing Systems Engineer
    - Marine Engineer
    - Materials Engineer
    - Mechanical Drafter
    - Mechanical Engineer
    - Mechanical Engineering Technician
    - Stockroom, Warehouse, or Storage Yard Stock Clerk
    - Technical Writer