

# Beaufort County Community College

## Welding Technology Technical Standards

### **Criterion: Cognitive Standard:**

- A) Ability to measure, calculate, reason, analyze, integrate and synthesize information.
  - 1) Example: Establish and manage time requirements for welding project completion.
  - 2) Example: Demonstrate judgment and decision making as required to organize various tasks to complete welding assignments and projects.
  - 3) Example: Determine solutions and procedures to guarantee conformance with welding tolerances and specifications.
  - 4) Example: Use self-evaluation of performance to determine new approaches for personal improvement.
  - 5) Example: Exhibit the ability to analyze documentation like blueprints and welding procedures specifications and then use this knowledge to build, fabricate, weld projects and/or structures.

### **Criterion: Communication Standard:**

- A) Appropriate interpersonal interaction with other students, faculty, and other professionals.
  - 1) Example: Use a variety of strategies to convey the necessary welding information required to complete a specific welding task or project.
- B) Effective communication with others, both verbally and in writing.
  - 1) Example: Discuss available alternatives and methods that may be used to accomplish the objective.
  - 2) Example: Use oral expression, reading, and writing comprehension to verify the information was received.
  - 3) Example: Use of welding symbols to represent information on blueprints, projects, work orders, and welding procedure specifications.

### **Criterion: Motor Skills Standard:**

- A) Demonstrate physical abilities including: standing, sitting, walking, stooping, crawling, reaching, squatting, lifting, and bending.
  - 1) Example: Demonstrate ability to perform physical welding and cutting operations in an industrial laboratory while wearing all required personal protective equipment.
  - 2) Example: Demonstrate ability to perform various welding and cutting tasks while the body is in an awkward and/or uncomfortable position.
- B) Exhibit full range of motion of all extremities.
  - 1) Example: Participate completely in classroom activities.

- 2) Example: Demonstrate ability to perform repetitive physical movements and motor skills intermittently and/or continuously for extended periods of time. Be able to lift 50 pounds.
- C) Perform controlled accurate movements, motor skills, and techniques with both hands and both arms independently and/or simultaneously.
    - 1) Example: Demonstrate ability to continuously improve and further develop manual motor skills and welding techniques.
    - 2) Demonstrate ability to develop and refine manual dexterity motor skills to implement various welding techniques.

**Criterion: Professional Conduct Standard:**

- A) Function effectively and efficiently during demanding seasonal workload periods.
  - 1) Example: Maintain an understanding and effective relationships with customers, colleagues, faculty, staff and other professionals.
- B) Incorporate professional standards of practice into all activities.
  - 1) Example: Work effectively with a team in an academic or live project setting.
  - 2) Example: Refrain from using improper grammar, profane or inappropriate communications.
- C) Demonstrate integrity and accountability in shop and academic settings.
  - 1) Example: Complete all assignments in a timely manner.
  - 2) Example: Respond appropriately to constructive feedback.
  - 3) Example: Take all tests and final examinations as scheduled.
- D) Present self in a professional manner in clinical and academic settings.
  - 1) Example: Wear appropriate clothing that is not distracting or offensive when in the learning environment or that may cause an unsafe environment. with no detectable scents or odors.

**Criterion: Sensory Standard:**

- A) Hearing sufficient to communicate with peers in close or far proximity.
  - 1) Example: Communicate effectively with other welders or coworkers inside of an industrial shop or in the field by voice, loud speaker, phone, and/or two-way radio.
  - 2) Example: Hear and detect safety hazards like flammable gas leaks. For example: welders are notified of gas leaks with a repeating buzzer sound.
- B) Vision sufficient for maintaining safety.
  - 1) Example: Visually observe weld bead and spatial distance.
- C) Olfactory senses to detect gas and fumes.
  - 1) Example: Detect hazardous and/or objectionable welding fumes.
  - 2) Example: Detect specific flammable gas leaks like acetylene or propylene gas.

This document is intended to serve as a guide regarding the physical, emotional, intellectual and psychosocial expectations placed on a student. This document cannot include every conceivable action, task, ability or behavior that may be expected of a student. Meeting these technical standards does not guarantee a student's eligibility for any licensure, certification exam, or successful completion of a degree program.