

**Davidson County Community College**  
**Welding Technology: Technical Standard**

Criteria	Standard	Example
Critical thinking/problem solving	<p>Demonstrate ability to use logic and technical analysis to identify the strengths and weaknesses of different approaches to complete welding tasks.</p> <p>Demonstrate personal time management to complete projects by given deadlines.</p> <p>Exhibit ability to translate written and/or verbal information into actual projects.</p> <p>Demonstrate ability to execute work requirements in accordance with written instructions.</p> <p>Exhibit deductive reasoning.</p>	<p>Establish and manage time requirements for welding project completion.</p> <p>Demonstrate judgment and decision making as required to organize various tasks to complete welding assignments and projects.</p> <p>Determine solutions and procedures to guarantee conformance with welding tolerances and specifications.</p> <p>Use self-evaluation of performance to determine new approaches for personal improvement.</p> <p>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.</p>
Communication	<p>Demonstrate use of multiple approaches to convey information.</p> <p>Demonstrate ability to follow verbal and written directions.</p> <p>Discuss directions and methods required to complete a specific welding task.</p> <p>Demonstrate use of industry specific welding symbols to communicate information.</p>	<p>Use a variety of strategies to convey the necessary welding information required to complete a specific welding task or project.</p> <p>Discuss available alternatives and methods that may be used to accomplish the objective.</p> <p>Use oral expression, reading, and writing comprehension to verify the information was received.</p> <p>Use of welding symbols to represent information on blueprints, projects, work orders, and welding procedure specifications.</p>
Motor Skills	<p>Demonstrate physical abilities including: standing, sitting, walking, stooping, crawling, reaching, squatting, lifting, and bending.</p> <p>Exhibit full range-of-motion of all extremities.</p> <p>Demonstrate balance sufficient to conduct precision repetitive movements.</p> <p>Demonstrate ability to keep balance and equilibrium when in various physical positions.</p>	<p>Demonstrate ability to perform physical welding and cutting operations in an industrial laboratory while wearing all required personal protective equipment.</p> <p>Demonstrate ability to perform various welding and cutting tasks while the body is in an awkward and/or uncomfortable position.</p> <p>Demonstrate ability to perform repetitive physical movements and motor skills intermittently and/or continuously for extended periods of time.</p> <p>Demonstrate ability to continuously improve and further develop manual motor skills and welding techniques.</p>

	Demonstrate ability to perform controlled accurate movements, motor skills, and techniques with both hands and both arms independently and/or simultaneously.	Demonstrate ability to develop and refine manual dexterity motor skills to implement various welding techniques.
Professional Conduct	<p>Function effectively and efficiently during demanding seasonal workload periods.</p> <p>Incorporate professional standards of practice into all activities.</p> <p>Demonstrate integrity and accountability during field work and academic setting.</p> <p>Present self in a professional manner during field projects and academic settings.</p> <p>Utilize computers correctly, effectively and professionally to acquire information and to communicate with others.</p>	<p>Maintain an understanding and effective relationships with customers, colleagues, faculty, staff and other professionals.</p> <p>Work effectively with a team in an academic or live project setting.</p> <p>Refrain from using improper grammar, profane or inappropriate communications</p> <p>Complete all assignments in a timely manner.</p> <p>Respond appropriately to constructive feedback provided by fellow students, faculty, staff, and customers.</p> <p>Wear appropriate clothing that is not distracting or offensive when in the learning environment or that may cause an unsafe environment.</p>
Sensory	<p>Demonstrate hearing ability sufficient to communicate with peers in close or far proximity.</p> <p>Demonstrate hearing awareness of potentially hazardous industrial equipment.</p> <p>Demonstrate ability sufficient to detect contaminant odors in the workplace.</p> <p>Demonstrate ability to detect flammable gas leaks.</p>	<p>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.</p> <p>Hear and detect safety hazards like flammable gas leaks. For example: welders are notified of gas leaks with a repeating buzzer sound.</p> <p>Detect hazardous and/or objectionable welding fumes.</p> <p>Detect specific flammable gas leaks like acetylene or propylene gas.</p>