

### Essential Skills Welding Technology

### (Welding Technology/Welding Technician/Welding for Ag Educators)

The essential skill sheets are lists of the most commonly encountered qualities and skills typically necessary to be successful in a particular program or area of interest. The information contained in an essential skills sheet is not all-inclusive and is intended to be used as a guide only. Individual programs may have specific requirements or technical standards that must be met.

**Physical** 

Arm-hand coordination Bend

Arm-hand steadiness

Pinch, grasp, squeeze, and manipulate objects

Hand-eye coordination

Reach above shoulders

Reach below waist

Squat for long periods

Depth perception Stoop
Detect difference in visual details Climb

Detect odors (faint, strong, noxious)

Draw, sketch or form common shapes, forms and figures

Feel differences in surface characteristics

Work in extreme/hazardous conditions (darkness, heat, cold, dampness, very small spaces)

Lift a minimum of 50 pounds (unassisted)

Maintain balance (sit, stand, squat)

Maintain physical endurance

Maintain safety of self and others

Maneuver under and around objects

Move within confined spaces

Navigate different terrains

### Cognitive

Accurately recall information

Follow and retain diagram instructions (simple to more complex)

Anticipate when something is likely to go wrong Apply knowledge from one situation to another Follow and retain oral instruction (multi-step)

Follow and retain visual model or demonstrated instructions Follow and retain written instructions (technical/multi-step)

Calculate using calculator Calculate using pen/paper

Identify behaviors that negatively impact safety

Complete forms accurately

Convert between fractions and decimals or percentages Interpret scale drawings (blueprints, maps, schematics)

Differentiate between objects of similar shape Differentiate between objects of similar size

Differentiate between objects of similar spatial relationship

Take measurements using specialized equipment

Evaluate the complexity of jobs

Focus attention on task

Adaptability
Calculate areas
Calculate decimals
Calculate fractions

Identify appropriate solutions
Combine knowledge and skills
Identify symbols and icons
Interpret information
Decide course of action
Locate data in tables

Measure angles
Measure distance or dimension
Measurement conversions

Problem solve
Evaluate information
Use a computer (other)

Use reference/technical materials

**1/3** 12/18/13



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Collaborate with others

Communicate in a professional/tactful manner

Communicate using a telephone

Discuss ongoing projects/work

Explain/express ideas and opinions

Present supporting facts/recommendations

Read, write, speak, and comprehend English effectively

Record written information

### **Behavioral**

Accept cognitive criticism

Adapt to changing situations

Complete responsibilities in a timely manner

Cooperate with others individually or in a team setting

Dependability

**Exercise accountability** 

Exercise good judgement

Exercise independent judgement

Self-motivation and initiative

Work carefully while maintaining efficiency and organization

Work independently with limited supervision

**2/3** 12/18/13



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See program or desired area of employment for specifics - Certifications/Licenses	

**3/3** 12/18/13