

# COMPETENCY PROFILE

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## INTRODUCTION TO TRADE SAFETY

**BTC: WLD 101 (2 credits)**



Introduction to welding industry, orientation to the metal shop environment & safe welding practice is covered. Students will review electrical & compressed gas cylinder safety, safe applications with grinders, band saws, & ironworkers. Course must be completed satisfactorily prior to further training in the weld lab.

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**Demonstrate recognized shop safety practices.**

**Demonstrate proper and safe use of welding tools and equipment:**

- Chipping hammers
- Wire brushes
- Picks (weld cleaning)
- Tape measure
- Squares
- Levels
- Weld gauges
- Protractors
- Clamps
- Portable grinders, sanders and power brushes
- Pedestal grinders

**Advanced Skills – Optional**

- Belt/disc sanders
- Abrasive saws
- Band saws
- Hydraulic presses
- Squaring shears
- Iron workers

**Explain limitations, safety considerations and efficient operating practices for the following equipment categories:**

- Grinders and power brushes

**Advanced Skills – Optional**

- Squaring shears
- Iron workers
- Abrasives saws
- Horizontal bandsaws
- Belt/disc sanders
- Hydraulic presses

**Identify safety hazards associated with welding/metalworking:**

- Ultraviolet and infrared radiation
- Fire
- Explosion
- Electric shock
- Noise
- Projectiles (sparks, metal fragments, etc.)
- Fumes
- Machine pinch and crush hazards
- Heat

**Describe strategies for injury prevention:**

- WISHA Standards
- OSHA Standards
- L&I Standards

**Describe the use of personal protective equipment:**

- Safety glasses
- Ear protection
- Work boots
- Gloves
- Welding hood with appropriate filter for arc processes
- Welding goggles or face shield for oxyfuel processes
- Appropriate apparel for protection from heat, sparks and radiation

**Demonstrate proper and safe handling/use of bottled gases.**

**Demonstrate proper and safe set-up of welding leads and equipment.**

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**College Textbook Reference:**

Welding Principles and Applications; Sixth Edition; Larry Jeffus

This document is to certify that this student has completed the required coursework as defined by the Whatcom County Tech Prep Articulation Agreement and has demonstrated mastery for college credit. Further information about any aspect of this program may be obtained by contacting the school and instructor named on this profile.