



South Central College

# AGME 1930 Ag Welding

## Common Course Outline

### Course Information

<b>Description</b>	This course includes skill development in wire feed, arc welding and oxy/acetylene welding, cutting and brazing, and metal preparation. Student will cover metallurgy for the purpose of broken bolt removal and material machining. A welding project will be utilized to show competency with skills.
<b>Total Credits</b>	2
<b>Total Hours</b>	64

### Types of Instruction

Instruction Type	Credits/Hours
On-Campus Lab	

### Pre/Corequisites

None

### Course Outcomes

- 1. Weld using oxy/acetylene torch**  
**Learning Objectives**  
Describe oxy/acetylene flames  
Perform oxy/acetylene flat beads  
Perform oxy/acetylene flat tee weld  
Perform oxy acetylene vertical up butt weld  
Perform oxy/acetylene brazed flat butt weld  
Perform oxy/acetylene brazed flat lap weld  
Perform oxy/acetylene brazed flat tee joint  
Perform oxy/acetylene flat butt weld
- 2. Perform bending and shaping with heating metal**  
**Learning Objectives**  
Apply heat to metal to without melting or cracking  
Identify materials that can be adjusted with heat
- 3. Remove broken off hardware**  
**Learning Objectives**  
Apply heating and cooling to remove broken component

Acquaint self with basic machine skills  
Sharpen drill bits for drilling relief holes

**4. Perform wire feed welding**

**Learning Objectives**

Adjust welder for correct settings  
Perform weld flat  
Perform wire weld vertical  
Perform wire weld lap weld

**5. Cut using a oxy/acetylene**

**Learning Objectives**

use correct technique for various metal thicknesses  
Adjust torch for cutting  
Perform lines, circles

**6. Identify metals and joint types**

**Learning Objectives**

Identify metals for specific welding rods  
Identify types of welding for special metals  
Identify stronger joints for specific projects

**7. Explain welding shop safety rules**

**Learning Objectives**

Acquaint self with welding shop safety  
Agree to follow dress code for welding shop  
Explain safe use of welders and torches  
Exhibit proper start-up and shutdown procedures

**8. Perform arc welding**

**Learning Objectives**

Choose correct rods for specific metal to arc weld  
Adjust welders for proper amperage to weld  
Choose proper technique for direction of weld

**SCC Accessibility Statement**

Disability Services provides accommodations and other supports to students with permanent and temporary disabilities that affect their SCC experience. Disabilities may include mental health (anxiety, depression, PTSD), ADHD, learning disabilities, chronic health conditions (migraine, fibromyalgia), sensory disabilities, and temporary disabilities (broken arm, surgery). Common accommodations are extended test time, private room for testing, audiobooks, and sign language interpreter.

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