



South Central College

WELD 1036 Gas Metal Arc Welding II

Common Course Outline

Course Information

Description	This course will reinforce concepts introduced in GMAW I, including circuits, spray arcs, and effects of shielding gasses. More practice time will be dedicated to mastery of gas metal arc welding. Additionally, this course will prepare for American Welding Society D 1.1 certification. (Prerequisites: WELD 1035)
Total Credits	1
Total Hours	32

Types of Instruction

Instruction Type	Credits/Hours
Lab	1 / 32

Pre/Corequisites

WELD 1035

Course Outcomes

1. Choose applicable materials and supplies to complete gas metal arc weldments.

Learning Objectives

Determine the correct GMAW welder type, electrode, wire type, diameter, and gas to be used in a specific welding situation.

Evaluate appropriate settings based on a given GMAW welding situation.

Set up and adjust the GMAW welder to "tune" for proper electrode stickout, voltage, polarity, flow rate, and wire-feed speed required for the material being welded.

2. Set up equipment and supplies necessary to perform GMAW.

Learning Objectives

Choose proper equipment settings and programs to weld on specific base metals.

Utilize proper welding consumables and fluxes for a selected process.

3. Demonstrate GMAW concepts and techniques in creating quality weldments.

Learning Objectives

Use the proper angle of the gun to the joint and direction of gun travel for the type of weld being made in the flat, horizontal, vertical, and overhead positions.

Apply square wave, pulse, and balance control settings to specific welds.

Perform the proper steps in welding with gas metal arc equipment.

4. Produce final product that withstands testing.

Learning Objectives

Create quality weldments on mild steel in all welding positions.

Identify any causes of various welding defects; make necessary adjustments.

5. Prepare for American Welding Society D 1.1 certification test.

Learning Objectives

Practice all types of positions necessary to pass AWS D 1.1

Construct final weld coupon for testing.

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.

Contact us: Faribault A116 (507) 332-5847. North Mankato E112 (507) 389-7222. ds@southcentral.edu
www.southcentral.edu/disability