

Multi-State Advanced Manufacturing	RELEASE DATE	10/07/2015
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PRIMARY DEVELOPER: Kevin Ridge, Welding Instructor, Henry Ford College		

# **Course Outline**

Gas Metal Arc Welding (Flat and Horizontal)



HFC Course Code: CIMWD-130

**Course Topic:** Gas Metal Arc Welding (Flat and Horizontal) **Recommended Textbook:** Welding: Principles and Applications 7<sup>th</sup> Edition

## **Course Description:**

Covers theory, machine settings, filler metals, and operation of gas metal arc welding. Emphasizes safety protocols, flat welding position, and horizontal welding position using mild steel.

## **Course Topics**

- 1. Safety
- 2. GMAW welding machine
- 3. Filler metal
- 4. Flat position welding
- 5. Horizontal position welding

## **Course Objectives\***

- 1. Demonstrate proper safety practices for the Gas Metal Arc Welding process.
- 2. Prepare the Gas Metal Arc Welding machine for a given metal type and thickness.
- 3. Select the proper filler metal for a given weldment using the Gas Metal Arc Welding process.
- 4. Demonstrate the proper welding technique in flat position.
- 5. Demonstrate the proper welding technique in horizontal position.
- 6. Perform welds using proper preparation and welding technique for a given weldment.
- \* See Projects for more details

## Lectures/Demonstrations:

- 1. Set-up
- 2. Filler Metals
- 3. Techniques





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