

## **Multi-State Advanced Manufacturing** Consortium

US DOL SPONSORED TAACCCT GRANT: TC23767

**RELEASE DATE** 

10/08/2015

VERSION

v 002

**PAGE** 1 of 2

# **Course Outline**

PRIMARY DEVELOPER: Kevin Ridge, Welding Instructor, Henry Ford College

Pipe Welding (Socket and Flange Welding)



**HFC Course Code:** CIMWD-212

**Course Topic:** Pipe Welding (Socket and Flange Welding)

**Recommended Textbook:** Welding: Principles and Applications 7<sup>th</sup> Edition

## **Course Description:**

Introduces safety protocols and proper weld pipe preparation. Focuses on alignment and pipe welding with socket joints and flange joints.

## **Course Topics**

- 1. Safety.
- 2. Socket and flange joints.
- 3. Socket alignment.
- 4. Flange alignment.
- 5. Socket welding.
- 6. Flange welding.

## **Course Objectives**

- 1. Demonstrate proper safety practices for pipe welding.
- 2. Identify and explain a socket pipe joint.
- 3. Identify and explain a flanged pipe joint.
- 4. Demonstrate the proper alignment techniques for the socket and flanged pipe joints.
- 5. Perform a weld using the proper techniques for the socket and flanged pipe joint using the Shielded Metal Arc Welding process.

# **Lectures/Demonstrations:**

1. Flange and socket fit-up



<sup>\*</sup> See Projects for more details.



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