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## SECTION HEADING

### WELD 1300: Intermediate Gas Metal Arc Welding

#### Description

Intermediate Gas Metal Arc Welding will teach students to perform Gas Metal Arc Welding in the horizontal, vertical, and overhead positions in accordance with American Welding Society procedures. Operate power supplies that use shielded gases, short-arc and spray discharge. Identify wire types and sizes, common joint types in various thicknesses are welded.

#### Credits

3

#### Prerequisite

None

#### Corequisite

None

#### Topics to be Covered

1. The use and selection of personal protective equipment, eye and face protection, clothing for Gas Metal Arc Welding
2. Methods of metal transfer
3. Common shielding gasses or gas mixtures used for short circuiting, spray, and pulsed spray transfer on plain carbon steel
4. Effects of voltage, electrical potential, amperage, and electrical current as it relates to the Gas Metal Arc Welding process
5. Wire feed speed, how to determine and its relationship to welding current
6. Techniques to control the Gas Metal Arc Welding weld pool
7. Gas Metal Arc Welding equipment set-up and proper use

#### Learning Outcomes

1. Recognize and demonstrate weld shop safety and the use of personal protective equipment.
2. Demonstrate safe and proper use of Gas Metal Arc Welding equipment and components.
3. Perform a groove weld in all positions.
4. Apply the technical understanding of the Gas Metal Arc Welding processes.
5. Evaluate welds for compliance with American Welding Society standards and codes.

#### Credit Details

Lecture: 0

Lab: 3

OJT: 0

MnTC Goal Area(s): None