

# WPT 130 - SMAW (ARC) WELDING I

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## Course Description

This course is designed for students pursuing job skills or transfer into a Welding degree program. Students learn theory and application of safe Shielded Metal Arc Welding (SMAW) in the flat and horizontal positions. They develop skills with "fast freeze" and "low hydrogen" type electrodes. Topics include welding terminology, electrical theory as it relates to SMAW, weld defects and quality, and the American Welding Society SMAW filter material numbering system. Group 2 course.

## Credit Hours

3

## Contact Hours

5

## Lecture Hours

1

## Lab Hours

4

## General Education Outcomes supported by this course

Critical Thinking - Direct

## Course Learning Outcomes

### Knowledge:

- Understand and use terminology common to the welding trade as defined by the American Welding Society (AWS).

### Application:

- Demonstrate proper handling, setup, and adjustment of SMAW equipment.

### Integration:

- Demonstrate the ability to complete welds on steel in the flat and horizontal positions with the SMAW process.

### Human Dimension:

- Students will recognize the importance of weld quality on the health, safety, and welfare of the public.

### Caring - Civic Learning:

- Students will be aware of their personal impact on the quality of the projects in which they are involved.

### Learning How to Learn:

- Students will evaluate hypothetical applications and determine efficacy of different processes.