



Course Outline

2026-2027 Catalog

WLD 152 - Shop Practices for Intermediate Welders

Catalog Description

Transfer Status: NT

Prerequisite: WLD 20

Unit(s): 0.50-1.00

Lab: 25.50-51.00 Contact hours/0.00-0.00 Out of class hours/25.50-51.00 Total hours/0.50-1.00 Unit(s)

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Course Description: This is a supervised lab experience for intermediate welding students. Students will practice skills in shielded metal arc welding (SMAW), gas metal arc welding (GMAW), oxy-fuel cutting (OFC), plasma arc cutting (PAC), and air carbon arc cutting and gouging (CAC-A). Welding and cutting processes will be in the flat, horizontal, vertical, and overhead positions on groove welds with backing and open V-groove welds. All welds will meet the American Welding Society (AWS) qualification standards. This course may be repeated to a maximum of 1.00 units to complete the entire curriculum of the course. Pass/No Pass only. Open Entry/Open Exit.

Objectives

Upon successful completion of this course, the student should be able to:

1. Follow proper safety protocols when operating welding and cutting equipment.
2. Operate SMAW equipment to weld in the flat, horizontal, vertical and overhead positions.
3. Operate GMAW equipment, to weld in the flat, horizontal, vertical positions.
4. Operate SMAW equipment on various joint fit-ups and alignment.
5. Use PAC equipment in a safe manner.
6. Use CAC-A equipment in a safe manner.
7. Demonstrate welding skills at a proficiency level appropriate for an intermediate welding student.

Course Content

Topic Titles / Suggested Time Topic	
	<u>Lab</u>
<u>Topics</u>	<u>Lab Hrs</u>
Introduction and safety	1.50
SMAW	6.00
PAC	4.00
CAC-A	4.00
GMAW	6.00
OFC	4.00
Total Hours: 25.50	

Methods of Instruction

- A. Demonstrations
- B. Laboratory Experiments
- C. Welding

Methods of Evaluation

- A. Class participation
- B. Practical Evaluations

Examples of Assignments

Reading Assignments

1. Read the manual for the GMAW equipment and describe the steps for proper setup to the instructor.
2. Read the American Welding Society (AWS) code book for proper SMAW open V-groove welding procedures and demonstrate these procedures in class.

Writing Assignments

1. Maintain a written log of your daily welding activities.
2. Prepare a written description of the order of operations for proper GMAW equipment setup.

Out-of-Class Assignments

1. Not applicable

Recommended Materials of Instruction

Other Learning Materials

Safety equipment: safety glasses, welders hat, leather gloves, leather jacket, leather chaps, leather boots, ear plugs and proper protective clothing (no tennis shoes, tank tops, or shorts).

Tools: chipping hammer, wire brush, tip cleaners, 10 in. straight jaw locking pliers, combination square, paint pen, striker, 25' tape measure, 10R and 11R vise grips, mig pliers, 3" x 5" memo pad and soap stone.

Minimum Qualifications

Welding

Created/Revised by: Robinson, Donald

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