

BUTTE COLLEGE

COURSE OUTLINE

I. CATALOG DESCRIPTION

WLD 152 - Shop Practices for Intermediate Welders

0.5 - 1 Unit(s)

Prerequisite(s): WLD 20

Recommended Prep: Reading Level III; English Level II; Math Level II

Transfer Status: NT

25.5 - 51 hours Lab

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. Students may enroll in this course up to 1 unit(s) to complete the entire curriculum of the course. Pass/No Pass Only. Open Entry/Open Exit.

II. OBJECTIVES

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

- A. Follow proper safety protocols when operating welding and cutting equipment.
- B. Operate SMAW equipment to weld in the flat, horizontal, vertical and overhead positions.
- C. Operate GMAW equipment, to weld in the flat, horizontal, vertical positions.
- D. Operate SMAW equipment on various joint fit-ups and alignment.
- E. Use PAC equipment in a safe manner.
- F. Use CAC-A equipment in a safe manner.
- G. Demonstrate welding skills at a proficiency level appropriate for an intermediate welding student.

III. COURSE CONTENT

A. Unit Titles/Suggested Time Schedule

		Lab	
<u>Topics</u>			<u>Hours</u>
1.	Introduction and safety		1.50
2.	SMAW		6.00 - 13.50
3.	GMAW		6.00 - 12.00
4.	PAC		4.00 - 8.00
5.	CAC-A		4.00 - 8.00
6.	OFC		4.00 - 8.00
Total Hours			25.5 - 51

IV. METHODS OF INSTRUCTION

- A. Demonstrations
- B. Laboratory Experiments

V. METHODS OF EVALUATION

- A. Class participation

B. Practical Evaluations

VI. EXAMPLES OF ASSIGNMENTS

A. 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.

B. 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.

C. Out-of-Class Assignments

1. Not applicable

VII. RECOMMENDED MATERIALS OF INSTRUCTION

Materials Other Than Textbooks:

- A. 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).
- B. 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.

Created/Revised by: Donald Robinson

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