WELD A117: ARC AND OXYACETYLENE WELDING PRACTICE LEVEL 3

Item	Value
Curriculum Committee Approval Date	11/15/2017
Top Code	095650 - Welding Technology
Units	1-2 Total Units
Hours	54-108 Total Hours (Lab Hours 54-108)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

A second-level laboratory class to develop skills in SMAW and oxy-acetylene welding. PREREQUISITE: WELD A100 or WELD A101 or concurrent enrollment. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Weld GMAW in the flat position.
2. Weld SMAW in all positions.
3. Cut materials using various thermal cutting processes.

Course Objectives

- 1. Demonstrate SMAW in all positions
- 2. Demonstrate pipe welding on horizontal plane fixed position (1G)
- 3. Demonstrate tube welding
- 4. Demonstrate GMAW welding in the flat position.
- 5. Demonstrate thermal cutting.

Lecture Content

Shielded Metal Arc Welding Vertical position Overhead position Oxygen Acetylene Welding Tubing Pipe Thermal cutting Gas Metal Arc Welding Set up welding equipment Flat position

Lab Content

Shielded Metal Arc Welding Vertical position Overhead position Oxygen Acetylene Welding Tubing Pipe Thermal cutting Gas Metal Arc Welding Set up welding equipment Flat position

Method(s) of Instruction

- Lab (04)

Instructional Techniques

Textbook reading, demonstrations, skills evaluation, and instructional critique

Reading Assignments

Skills evaluation, demonstration, and critiques Proficiency demonstrated by psycho-motor skills Proficiency demonstrated in vocabulary and meaning

Writing Assignments

Skills evaluation, demonstration, and critiques Proficiency demonstrated by psycho-motor skills Proficiency demonstrated in vocabulary and meaning

Out-of-class Assignments

Skills evaluation, demonstration, and critiques Proficiency demonstrated by psycho-motor skills Proficiency demonstrated in vocabulary and meaning

Demonstration of Critical Thinking

Project, certification plates

Required Writing, Problem Solving, Skills Demonstration

Project, certification plates

Eligible Disciplines

Welding: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Galvery, William and Frank Marlow. Welding Essentials: Questions and Answers , 2nd ed. New York: Industrial Press, 2007

Other Resources

1. Orange Coast College Welding Safety Test Selected handout materials to be provided and distributed by the instructor.