WELD A115: ARC AND OXY-ACETYLENE WELDING PRACTICE LEVEL 1

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

Course Level Student Learning Outcome(s)

1. Weld in various positions i.e. flat, horizontal, vertical or overhead.
2. Join materials using brazing
3. Cut materials using various thermal cutting processes
4. Setup and weld using various welding processes
5. Use various welding processes in joining metals

Course Objectives

- 1. Demonstrate flat position welding
- 2. Demonstrate horizontal position welding
- 3. Demonstrate vertical position welding
- 4. Demonstrate overhead position welding
- 5. Demonstrate pipe welding on horizontal plane fixed position (5G)
- 6. Demonstrate pipe welding with pipe at a 45 degree angle and fixed position (6G)
- 7. Demonstrate tube welding
- 8. Demonstrate brazing.
- 9. Demonstrate thermal cutting.
- 10. Demonstrate the ability to setup welding equipment.

Lecture Content

Shielded Metal Arc Welding Flat position Horizontal position Vertical position Overhead position Oxygen Acetylene Welding Flat position Horizontal position Vertical position Overhead position Tubing Pipe Brazing Thermal cutting Gas Metal Arc Welding/Flux Cored Arc Welding Set up welding equipment Flat position Horizontal position Vertical position Overhead position Pipe Gas Tungsten Arc Welding Set up welding equipment Flat position Horizontal position Vertical position Overhead position

Lab Content

to be completed by faculty

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

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.