WELD 0811 - WELDING TECHNOLOGY INDUSTRY TRAINING 2

Catalog Description

Hours: 42 (6 lecture, 36 laboratory)
Description: Covers advanced welding processes, knowledge, and skills specific to employers' needs. Workplace safety and etiquette are included. Advanced metal fabrication skills for specific employment needs and advanced welding certification testing are provided as requested by employers. (noncredit)

Course Student Learning Outcomes

- CSLO #1: Employ proper respiratory safety in the welding workspace.
- CSLO #2: Employ quality control measures and advanced welding techniques to minimize and eliminate welding discontinuities.
- CSLO #3: Pass employer-selected advanced Welder Qualification Test(s).

Effective Term

Fall 2025

Course Type

Noncredit

Contact Hours

42

Outside of Class Hours

12

Total Student Learning Hours

54

Course Objectives

Lecture Objectives

1. Use advanced welding terminology and concepts as requested by the employer.
2. Identify different ferrous and non-ferrous metals and explain their properties relevant to welding employer-selected materials.
3. Perform advanced visual inspections and evaluate discontinuities vs defects common to employer welding tasks.

Lab Objectives

1. Identify and safely use proper respiratory protective equipment and measures applicable to the employer's workspace.
2. Demonstrate advanced welding techniques using employer-selected welding process(es).
3. Complete and pass employer-selected advanced Welder Qualification Test(s).

General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

Articulation Information

- Not Transferable

Methods of Evaluation

- Classroom Discussions
  - Example: The instructor will discuss with the students what good and bad quality control measures look like in the welding workspace.
- Objective Examinations
  - Example: The instructor will test student knowledge and understanding through multiple-choice questions on a quiz. Please select the welding code standard(s) that govern(s) stainless steel welding. a) AWS D1.1, b) AWS D1.6, c) AWS D9.1, d) AWS D17.1. (Answer: b and d)
- Skill Demonstrations
  - Example: The instructor will demonstrate proper welding techniques needed to pass advanced Welder Qualification Test(s) as selected by the employer. The students will then demonstrate welding competency by performing and passing the test(s).

Repeatable

Yes

Methods of Instruction

- Laboratory
- Lecture/Discussion

Lab:

1. The instructor will demonstrate advanced welding skills required to pass a welder qualification test. The instructor will provide tips and tricks specific to various joints and positions. Students will practice these techniques to prepare for the Welder Qualification Test(s) LAB OBJ 3

Lecture:

1. The instructor provides samples and discusses various ferrous and non-ferrous metals and their applications with students. Students are asked what types of metals they have worked with and the applications.

Typical Out of Class Assignments
Reading Assignments

Read OSHA standards on respiratory safety and be prepared to discuss in class.

Writing, Problem Solving or Performance

Perform advanced welding skills to pass a welder qualification test.

Other (Term projects, research papers, portfolios, etc.)

Required Materials

Other materials and-or supplies required of students that contribute to the cost of the course.