

WELD 0810 - WELDING TECHNOLOGY INDUSTRY TRAINING 1

Catalog Description

Hours: 42 (6 lecture, 36 laboratory)

Description: Covers welding processes, knowledge, and skills specific to employers' needs. Workplace safety and etiquette are included. Metal fabrication skills for specific employment needs and welding certification testing are provided as requested by employers. (noncredit)

Course Student Learning Outcomes

- CSLO #1: Perform welding tasks and welding-related tasks safely in welding shop environment.
- CSLO #2: Pass basic employer-selected 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 basic welding terminology and concepts as requested by the employer.
2. Identify different metals and explain their properties relevant to welding employer-selected materials.
3. Perform basic visual inspections and recognize common welding defects common to employer welding tasks.

Lab Objectives

1. Identify and safely use welding tools and equipment applicable to the employer's workspace.
2. Demonstrate fundamental welding techniques using employer-selected welding process(es).
3. Complete and pass employer-selected 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 prompts students to discuss common OSHA violations observed in previous workspaces and discuss what was done or should have been done to correct the issues.
- Objective Examinations
 - Example: Exam questions given in T/F, multiple choice, matching and short answer questions. Example What Should the fit up be on a 1/2" thick 3G open root weldment with 1/8" land? a) 1/16", b) 3/32", c) 1/8" (Answer: b)
- Skill Demonstrations
 - Example: The instructor will demonstrate how to set up a welder qualification test. Students will demonstrate an understanding of this skill by also performing it to welding code standards.

Repeatable

Yes

Methods of Instruction

- Laboratory
- Lecture/Discussion

Lab:

1. The instructor will demonstrate proper welding techniques to pass a welder qualification test. Students will use these techniques to pass one or more Welder Qualification Tests.

Lecture:

1. The instructor will provide tables of different grades of metals and their uses. The instructor will identify various uses in the industry and explain how to identify each metal using the ASME numbering system or a spark test. Students will take notes and be quizzed on the material presented.

Typical Out of Class Assignments Reading Assignments

Read from Safety Topics in Welding and be prepared to discuss in class.

Writing, Problem Solving or Performance

Write about proper cleaning methods of metals before welding. Compare and contrast mild steel vs stainless steel.

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.