
SECTION HEADING

WELD 1340: Welding Qualifications Lab

Description

Welding Qualifications Lab teaches students how to determine the requirements of welding codes and specifications for welding qualifications. Emphasis will be placed on the American Welding Society and ASME tests and procedures for ferrous and non-ferrous metals. Performance will be evaluated using visual and destructive testing.

Credits

3

Prerequisite

None

Corequisite

None

Topics to be Covered

1. Contrast practical and written weld examinations
2. Outline the steps to certify a weld and a welder
3. Integrate the American Welding Society workmanship standards into practical assignments
4. Describe housekeeping responsibilities in a weld shop
5. Write a welder performance qualification test
6. Make welds that comply with a standard

Learning Outcomes

1. Recognize a safe work environment and the need for personal safety.
2. Demonstrate weld shop safety.
3. Demonstrate safe and proper use of weld shop equipment and components.
4. Prepare job cards, reports, and records in preparation for passing a test for a job.
5. Demonstrate and perform weld shop housekeeping duties.
6. Follow written and verbal instructions to layout, cut out, fit up, and weld various weldments using various processes.
7. Examine cut surfaces and edges of prepared base metal parts.
8. Examine tacks, root passes, intermediate layers and completed welds.
9. Apply American Welding Society codes and standards to completed welds.
10. Demonstrate and meet workmanship standards as specified through the WPS blueprints and production drawings.
11. Complete the weld safety test with a minimum score of 90%.

Credit Details

Lecture: 0

Lab: 3

OJT: 0

MnTC Goal Area(s): None