

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. WELD

COURSE NUMBER: 1340

NUMBER OF CREDITS: 3

Lecture: 0 Lab: 3 OJT: 0

Course Title:
Welding Qualifications Lab

Catalog 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

Prerequisites or Necessary Entry Skills/Knowledge:
None

FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)

- Goal 1: Communication: By meeting the following competencies:
- Goal 2: Critical Thinking: By meeting the following competencies:
- Goal 3: Natural Sciences: By meeting the following competencies:
- Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- Goal 7: Human Diversity: By meeting the following competencies:
- Goal 8: Global Perspective: By meeting the following competencies:
- Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered
Contrast practical and written weld examinations
Outline the steps to certify a weld and a welder
Integrate the American Welding Society workmanship standards into practical assignments
Describe housekeeping responsibilities in a weld shop
Write a welder performance qualification test
Make welds that comply with a standard

Student Learning Outcomes

Recognize a safe work environment and the need for personal safety.

Demonstrate weld shop safety.

Demonstrate safe and proper use of weld shop equipment and components.

Prepare job cards, reports, and records in preparation for passing a test for a job.

Demonstrate and perform weld shop housekeeping duties.

Follow written and verbal instructions to layout, cut out, fit up, and weld various weldments using various processes.

Examine cut surfaces and edges of prepared base metal parts.

Examine tacks, root passes, intermediate layers and completed welds.

Apply American Welding Society codes and standards to completed welds.

Demonstrate and meet workmanship standards as specified through the WPS blueprints and production drawings.

Complete the weld safety test with a minimum score of 90%.

Is this course part of a transfer pathway: Yes No

***If yes, please list the competencies below**

Revised Date: 3/29/2022