Bemidji State University

TADD 3660: TAD LAB: Welding

A. COURSE DESCRIPTION

Credits: 2
Lecture Hours/Week: 0
Lab Hours/Week: 0
OJT Hours/Week: *
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course will provide students with entry-level skills in Welding. This course includes basic welding theory, safety in welding, introduction to oxygen, basic weld symbols for blueprint reading. Students will learn oxyacetylene welding using the cutting torch and brazing, electric arc and other welding techniques, and stick welding with a variety of electrodes in the flat and horizontal fillet positions.

B. COURSE EFFECTIVE DATES: 08/20/2022 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Safety in the welding lab
2. Metal Inert Gas Welding (MIG)
3. Gas Tungsten Arc Welding (TIG)
4. Shielding Metal Arc Welding (SMAW)
5. Basic electrode Identification and Usage
6. Oxyfuel Gas welding & cutting
7. Plasma Arc Cutting
8. Blueprint reading/Layout and Design
9. Sheet metal processes
10. English wheel, bead roller, metal brake, pipe bender, beveling machine, shear, etc.

D. LEARNING OUTCOMES (General)

1. analyze and apply the primary welding processes.
2. demonstrate safe work habits.
3. develop the ability to read and interpret blueprint & welding symbols.
4. identify major types of ferrous and non-ferrous metals.
5. demonstrate sheet metal forming.
6. complete minor setup to welding equipment & accessories.
7. describe various methods of non-destructive testing.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus
G. SPECIAL INFORMATION

None noted