

Course discipline/number/title: FST 1520: Welding and Equipment Repair

A. CATALOG DESCRIPTION

1. Credits: 1
2. Hours/Week: 1
3. Prerequisites (Course discipline/number): None
4. Other requirements: None
5. MnTC Goals (if any): NA

B. COURSE DESCRIPTION: This course allows students to weld various projects using Oxy-Acetylene (GTAW, GMAW, SMAW). Skills will include braze welding, metal cutting, using shears, plasma cutters, and flame cutters.

C. DATE LAST REVISED (Month, year): December, 2021

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Welding Safety
2. Machine Setup
3. Proper Electrode
4. GMAW
5. SMAW
6. GTAW
7. Oxy/acetylene welding
8. Metal Cutting
9. Joint Makeup

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Make various welds.
2. Cut metal.
3. Make proper joints for welding.
4. Braze weld.
5. Set up a SMAW machine.
6. Set up a GTAW machine.
7. Set up a GMAW machine.
8. Gauge sheet metal.
9. Use various shop equipment.
10. Operate a metal break.

F. LEARNING OUTCOMES (MNTC): NA

G. METHODS FOR EVALUATION OF STUDENT LEARNING: Methods may include but are not limited to:

1. Cut and weld various steel projects via GTAW, SMAW, and GMAW
2. Braze weld project

H. RCTC CORE OUTCOME(S). This course contributes to meeting the following RCTC Core Outcome(s): Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.

I. SPECIAL INFORMATION (if any):

1. Protective gear will be required in this lab-based course