

# Dakota County Technical College

## WELD 1130: Flux Cored Arc Welding I

### A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: \*.\*

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Students will receive instruction in equipment, technique, and will have opportunity to practice skill development with the Flux Cored Arc Welding on mild steel plate. Use of three types of cored electrodes, gas-shielded, self-shielded, and metal core. The goal is to be able to perform welds in the flat and horizontal position to an industry acceptable level of quality for employment. Practice to achieve the required skill level is conducted by supervised instruction. Prerequisites: Must be taken at same time as Welding Safety and Theory I

**B. COURSE EFFECTIVE DATES:** 08/27/2012 - Present

**C. OUTLINE OF MAJOR CONTENT AREAS**

#### **D. LEARNING OUTCOMES (General)**

1. Demonstrate and follow all safety practices
2. Visual inspection of welds and cuts per applicable code or standard
3. Perform all work orders in accordance with shop standards
4. Iron worker setup and basic operation
5. Band saw setup and basic operation
6. FCAW equipment setup and basic operation
7. Set and use the correct amperage (wire feed speed/stick out),
8. Set the correct voltage
9. Set the correct gas flow rate(if applicable)
10. Master travel and work angles control
11. Master travel speed control
12. Master electrode manipulation control
13. Perform proper arc striking, restart, and crater fill techniques
14. Stringer beads in the flat position with GS, SS, and MC electrodes
15. Flat Position Surfacing Welds with GS, SS, and MC electrodes
16. 1F single pass weld using Metal Core electrode
17. 1G single pass weld using Gas Shielded electrode
18. 1F multi-pass weld using Self-Shielded electrode
19. 1G multi-pass weld using Metal Core electrode
20. Stringer beads in the horizontal position with GS, SS, and MC electrodes
21. Horizontal Position Surfacing Welds GS, SS, and MC electrodes
22. 2F single pass weld using Self-Shielded electrode
23. 2G single pass weld using Gas Shielded electrode
24. 2F multi-pass weld using Metal Core electrode
25. 2G multi-pass weld using Gas Shielded electrode

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

None

#### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

#### **G. SPECIAL INFORMATION**

None noted