

# Dakota County Technical College

## WELD 1260: Gas Tungsten Arc Welding II

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: \*.\*

Lab Hours/Week: 3

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course will develop the skills necessary for the Gas Tungsten Arc Welding process on aluminum and stainless steel sheet and plate in the flat, horizontal, and vertical up positions. The skills necessary for advanced safety procedures and in-shop cutting and forming will also be covered. Prerequisites: Gas Tungsten Arc Welding I, Welding Safety and Theory I and must be taken at the same time as Welding Safety and Theory II

**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. Perform container cleaning procedures
3. Utilize various ladders safely
4. Proper use of fall arrest equipment
5. Visual inspection of welds and cuts per applicable code or standard
6. Perform all work orders in accordance with shop/industry standards
7. Sheet and plate in-shop cutting
8. Sheet and plate in-shop forming
9. Sandblaster setup and basic operation
10. Tungsten grinding equipment setup and basic operation
11. GTAW equipment setup and advanced operation
12. Set correct gas flow
13. Use balance control on aluminum
14. Master amperage and voltage(arc length) control
15. Master travel and work angles control
16. Master travel speed control
17. Master electrode and filler rod manipulation/control
18. Perform proper arc striking, restart, and crater fill techniques
19. Stringer beads in the flat position
20. Surfacing welds in the flat position
21. 2F single pass welds on aluminum
22. 1G single pass welds on aluminum
23. 3F single pass welds on aluminum
24. Surfacing welds in the horizontal position
25. 2F single pass welds on stainless steel
26. 1G single pass welds on stainless steel
27. 3F single pass welds on stainless steel

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

None

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

As noted on course syllabus

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

None noted