



GAS TUNGSTEN ARC WELDING II — WELD 1260

A. Course Description

- **Credits:** 3.00
- **Lecture Hours/Week:** 0.00
- **Lab Hours/Week:** 3.00
- **OJT Hours/Week:** 0
- **Prerequisites:** None
- **Corequisites:**
 - WELD 1210: Welding Safety and Theory II
- **MnTC Goals:** None

This course will develop the skills necessary for the Gas Tungsten Arc Welding (GTAW) process on aluminum and stainless steel sheet and plate in the flat, horizontal, and vertical up positions. Prerequisites: WELD1120 Gas Tungsten Arc Welding I, WELD 1101 Welding Safety and Theory I and must be taken at the same time as WELD 1210 Welding Safety and Theory II

B. Course Effective Dates: 8/27/12 – Present

C. Outline of Major Content Areas

As noted on course syllabus

D. Learning Outcomes

1. Demonstrate proper electrode and filler rod control and manipulation for aluminum and stainless steel welds.
2. Demonstrate proper safety practices.
3. Determine proper settings on the welding machine for aluminum and stainless steel welds.
4. Determine proper travel, speed, and work angles for GTAW welding for aluminum and stainless steel welds.
5. Perform GTAW equipment setup and basic operation including gas flow settings for aluminum and stainless steel welds.
6. Perform sheet metal cutting and forming.
7. Perform sheet metal cutting.
8. Perform stringer bead surfacing, 1F single pass, 1G single pass, and 1G multi pass welds in the flat position on aluminum and stainless steel.
9. Perform stringer bead surfacing, 2F single pass, 2G single pass, and 2G multi pass welds in the horizontal

position; 3F single pass, 3G single pass, and 3G multi pass welds in the vertical-up position; and 4F single pass, 4G single pass, and 4G multi pass welds in the overhead position on stainless steel.

10. Visually inspect welds and cuts to determine if standards are met.

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

F. Learner Outcomes Assessment

As noted on course syllabus

G. Special Information

None noted