

WLDG 2443
Advanced Shielded Metal Arc Welding (4-2-6)

Western Texas College

- I. Basic Course Information
 - A. Course Description: Advanced topics based on accepted welding codes. Training provided with various electrodes in shielded metal arc welding processes with open V-groove joints in all positions.
 - B. Any required prerequisites: WLDG 1528, WLDG 1557 or permission of instructor
 - C. Required Grade for Enrolling in the Next Course in this Sequence: Satisfactory Completion
- II. Student Learning Outcomes
 - A. Describe effects of preheating and post-weld heating
 - B. Explain precautions used when welding various metals and alloys
 - C. Distinguish between qualification and certification procedures
 - D. Discuss problems of welding discontinuities
 - E. Perform open groove welds with low carbon steel and low alloy electrodes in all positions
- III. Testing Requirements
 - A. The final exam will take place in the welding classroom.
 - B. Students are NOT allowed to use their book or but can use notes of any kind while taking their tests and exams.
 - C. Students are allowed to use a calculator.
- IV. Major Course Requirements
 - A. Attendance - 10%
 - B. Participation – 20%
 - C. Welding Fabrication Projects – 70%
- V. Information on Books and Other Course Materials
 - A. Required Book:
 - B. Book ISBN:
 - C. Required Access Code: None
 - D. Calculators: Students must have a calculator that provides them with the trig function keys. A TI-30XA or its equivalent is strongly recommended.
- VI. Other Policies, Procedures and important dates. Please refer to the WTC [Catalog](#) for the following:
 - A. Campus Calendar
 - B. Final exam schedule
 - C. How to drop a class
 - D. Withdrawal information
 - E. Student Conduct/Academic Integrity
 - F. Class Attendance
 - G. Students with disabilities
- VII. Course Content

| WEEKS | LAB REQUIREMENTS |
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| 1-16 | All students will go through a variety of steps to learn advanced techniques to cut different types of metals, chose electrode and to weld in various positions. |
| 1-3 | Advanced Arc Welding Project - Continue |
| 4-5 | Advanced Flat Position Arc Welding |
| 6-8 | Advanced Vertical Position Arc Welding |
| 9-12 | Advanced Horizontal Arc Welding |
| 12-15 | Advanced Overhead Arc Welding |
| 16 | Welding Joint Testing |

Last Modified: February 15, 2017