

**WLDG 1557**  
**Intermediate Shielded Metal Arc Welding (5-3-6)**

**Western Texas College**

- I. Basic Course Information
  - A. Course Description: A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions.
  - B. Any required prerequisites: Freshman level courses or permission of instructor
  - C. Required Grade for Enrolling in the Next Course in this Sequence: Satisfactory Completion
- II. Student Learning Outcomes
  - A. Identify principles of arc welding
  - B. Describe arc welding operations of fillet and groove joints
  - C. Explain heat treatments of low alloy steels
  - D. Explain weld size and profiles
  - E. Prepare test plates
  - F. Perform fillet welds in the overhead position
  - G. Perform air carbon arc weld removal
  - H. Perform bevel groove welds with backing plates in various positions
  - I. Demonstrate use of tools and equipment.
- 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: none
  - B. Book ISBN: NA
  - 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
1-16	All students will go through a variety of steps to learn about cutting different types of metals, what electrode to use as well as to arc weld in various positions
1-3	Arc Welding Project - Continue
4-5	Flat Position Arc Welding
6-8	Vertical Position Arc Welding
9-12	Horizontal Arc Welding
12-15	Overhead Arc Welding
16	Welding Joint Testing

Last Modified: February 15, 2017