

**WLDG 2451**  
**Advanced Gas Tungsten Arc (TIG) (4-2-6)**

**Western Texas College**

- I. Basic Course Information
  - A. Course Description: Advanced topics in GTAW welding, including welding in various positions and directions.
  - 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. Demonstrate proficiency in various welding positions
  - B. Describe safety rules and equipment used
  - C. Describe the effects of welding parameters in GTAW
  - D. Weld various joint designs
  - E. Diagnose welding problems
  - F. Perform visual inspection
- 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 Book ISBN: NA
  - B. Required Access Code: None
  - C. 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 advanced techniques to cut different types of metals, chose electrodes and to weld in various positions.
1-3	Intro to TIG welding equipment
4-7	Weld thin wall material
8-12	Weld Stainless Steel metals
13-15	Tig welding with numerous rods
16	Prepare sample and weld testing

Last Modified: September 20, 2016