



**LAMAR INSTITUTE  
OF TECHNOLOGY**

## **Advanced Pipe Welding (WLDG 2453 2A1 & 5A1)**

### **INSTRUCTOR CONTACT INFORMATION**

Instructor: Alex Lewis

Email: atlewis@lit.edu

Office Phone: 409-247-5004

Office Location: Tommy Williams – IT1 - 104

Office Hours: Monday, Wednesday 5:00 P.M. - 8:30 P.M.

### **CREDIT**

4 Semester Credit Hours (2 hours lecture, 6 hours lab)

### **MODE OF INSTRUCTION**

Hybrid

### **PREREQUISITE/CO-REQUISITE:**

WLDG 2406

### **COURSE DESCRIPTION**

Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes.

### **COURSE OBJECTIVES**

Upon completion of this course, the student will be able to

Upon completion of this course, the student will be able to:

- Describe equipment and pipe preparation.
- Perform 5G and 6G welds using various electrodes

### **REQUIRED TEXTBOOK AND MATERIALS**

- I. *Modern Welding* by Althouse, Turnquist, Bowditch – Latest Edition
- II. Personal Tool List (approximately \$150-\$250).
  1. Hood
  2. Welder's cap
  3. Shade 10 or 11 lens
  4. Clear lens (10)
  5. Long sleeve 100% cotton shirt or leather sleeves or leather jacket
  6. Long 100% cotton work pants (jeans)
  7. High top leather boots (steel toe)

Approved: R.J./8-24-26

8. Leather gloves
9. Chipping hammer
10. Wire brush
11. Safety glasses
12. Cutting goggles or glasses (shade 5)
13. Measuring tape
14. Tip cleaner
15. 12" combination square
16. Pliers

**Students will not be allowed in class without the proper equipment and clothing**

### **ATTENDANCE POLICY**

- I. Students are allowed to miss two days without penalty; each additional day will result in the student's grade being dropped by a letter grade.  
  
Example:  
2 days absent = If student has an A average no penalty  
3 days absent = A drops to a B  
4 days absent = B drops to a C  
5 days absent = C drops to a D (student must retake class)  
6 days absent = D drops to a F (student must retake class)
- II. Absences are counted for unexcused, excused and coming to class late.
- III. 3 tardies = 1 absence
  - A. Tardy- arriving within 15 minutes after class begins or leaving before the end of class.
  - B. More than 15 minutes late you will be counted absent.
  - C. If you go to sleep in class you will be counted absent.
- IV. **Excused absences.** Only given to allow students to make up missed work.
  - A. Will be given for documented Injury or Illness. Doctor's excuse required showing proof. Will count toward total days missed.
  - B. Will be given for documented death in the immediate family. Will count toward total days missed.
  - C. Approved LIT school functions; E.g. SkillsUSA, SGA etc. Will not count toward total days missed
  - D. It is the student's responsibility to obtain from the instructor any handouts or assignments for classes missed. Lectures will not be repeated.
- V. If you wish to drop, you are responsible for the drop process. I will not initiate the drop, no matter how many absences or zeroes you have; that is, if you

stop coming to class and do not drop, you will earn an “F” in the course. Students are only allowed to drop 6 times in their college career.

### **DROP POLICY**

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#). If you stop coming to class and fail to drop the course, you will earn an “F” in the course.

### **STUDENT EXPECTED TIME REQUIREMENT**

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

### **COURSE CALENDAR**

| <b>Week</b> | <b>Topic</b>                                                                                                                                                                                                                                                                                                                                                             | <b>Reference</b>                                           |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 1-5         | <ul style="list-style-type: none"><li>• Course introduction and policies</li><li>• Shop orientation and safety procedures</li><li>• Chapter 11 Assignment</li><li>• Chapter 11 Test</li><li>• Use the Oxyfuel torch to cut pipe to length</li><li>• Use of pipe beveling machine</li><li>• Chapter 5 Assignment</li><li>• Chapter 5 Test</li><li>• LECTURE/LAB</li></ul> | Syllabi<br><br>Instructor<br>Demonstration/<br>Supervision |
| 6-10        | <ul style="list-style-type: none"><li>• Chapter 6 Assignment</li><li>• Use of pipe beveling machine</li><li>• 2G pipe welds</li><li>• Chapter 6 test</li><li>• Chapter 23 Assignment</li><li>• Chapter 23 Test</li><li>• 2G Tested to visual standards</li><li>• LECTURE/LAB</li></ul>                                                                                   | Instructor<br>Demonstration/<br>Supervision                |
| 11-16       | <ul style="list-style-type: none"><li>• Use of pipe beveling machine</li><li>• Chapter 14 Assignment</li><li>• Chapter 14 Test</li><li>• 6G pipe welds (test to ASME standard)</li><li>• LECTURE/LAB</li><li>• Chapter 15 Assignment</li><li>• Chapter 15 Test</li></ul>                                                                                                 | Instructor<br>Demonstration/<br>Supervision                |

***Dates are subject to change***

## **COURSE EVALUATION**

Final grades will be calculated according to the following criteria:

- Assignments 30%
- TEST 70%

No late assignments will be accepted.

## **GRADING SCALE**

|        |   |
|--------|---|
| 90-100 | A |
| 80-89  | B |
| 70-79  | C |
| 60-69  | D |
| 0-59   | F |

LIT does not use +/- grading scales

## **ACADEMIC DISHONESTY**

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

## **TECHNICAL REQUIREMENTS**

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

## **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email

[specialpopulations@lit.edu](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

### **STUDENT CODE OF CONDUCT STATEMENT**

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at [www.lit.edu](http://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

### **AI STATEMENT**

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI / ChatGPT in their courses.

### **STARFISH**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

### **ADDITIONAL COURSE POLICIES/INFORMATION**

1. No electronic devices of any kind (cell phones, I-pod, headphone, etc.) will be tolerated in the classrooms or labs. If you are seen using any electronic device, you will be asked to leave the class for the day.
2. No food or drink will be allowed in the classroom.
3. No derogatory or foul language will be tolerated.
4. We have a zero-tolerance policy for sexual harassment.
5. We have a zero-tolerance policy of racial or ethnic discrimination.
6. Be considerate of others in the classroom. Remember they paid for the class just like you.