



**(Welding-2451-211CL)**  
**(Advanced Gas Tungsten Arc Welding)**  
**(Summer 2024)**  
**MTW. 5:00pm-9:20pm**

**Instructor:** Marissa Fisher, [mfisher9@com.edu](mailto:mfisher9@com.edu) , 409-933-8380

**Student hours and location:** Mon-Wed 5:00pm-9:00pm  
Welding Technologies Office

**Required Textbook/Materials:** Welding Principles and Applications (Larry Jeffus)  
(ISBN-13: 978-1-111-03918-9) (ISBN-10: 1-111-03918-6)  
(ISBN-13: 978-1-111-03917-2) (ISBN-10: 1-111-03917-8)  
The Hard back and Lab book is required.

**Course Description:** Principles of gas tungsten arc welding (GTAW), including setup, GTAW equipment. Instruction in various positions and joint designs

**Course requirements:**

Lab Assignments	Performance Rating	Date	Instructor initials	Student Initials
<b>WLDG 2451</b>				
1. Describe safety rules and equipment used- SPOL				
2. Demonstrate proficiency in various welding position- SPOL				
3. Describe the effects of welding parameters in GTAW-SPOL				
4. Set up for Gas Tungsten Arc Welding operations				
5. Diagnose welding problems, and perform visual inspection-SPOL				
6. 2G fixed position on carbon steel pipe 6" diameter E-70S6-1/8" diameter for root pass, hot pass, filler pass and cap				
7. 5G rolled position on carbon steel pipe 6" diameter E-70S6 1/8" filler rod root pass, hot pass, filler pass and cap				
8. 5G fixed position on carbon steel pipe 6" E70S6 1/8" diameter rod root pass, hot pass, filler pass and cap				
9. 5G fixed position on carbon steel pipe 2" E70S6 root pass, hot pass, filler, and cap.				

10. 6G fixed position on carbon steel pipe 6" E70S6 root pass, hot pass, filler, and cap				
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**Determination of Course Grade/Detailed Grading Formula:**

1. The student must meet AWS standards on all workmanship qualifications.
2. 25% of the grade is homework, all homework must be completed to take the exam or it is a 0 on exam, 25% written exams, and 50% is skills test
3. Student must have a 65-70 on Exams and complete Lab Objectives
4. Student must 71 thru 80 on Exams and complete Lab Objectives
5. Student must 81 thru 90 on Exams and complete Lab Objectives
6. Student must 91 thru 100 on Exams and complete Lab Objectives

**Late Work, Make-Up, and Extra-Credit Policy:**

Make-up exams must be scheduled with your professor but must be scheduled within 7 days of the original test date or you will receive a zero for the test. Make-up exams may score no higher than 90% unless the make-up exam was scheduled prior to the original exam date. At the instructor's discretion, make up exams may be in a different format from the scheduled exam. Labs and homework not turned in on the due date will be scored at 80% of the maximum

**Attendance Policy: Attendance and Tardiness will be taken each class period. No more than four absents is allowed per class period.**

**Communicating with your instructor:** ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statement requiring monitoring and communication expectations via D2L or other LMS)

<b>Student Learner Outcome</b>	<b>Maps to Core Objective</b>	<b>L via this Assignment</b>
1. Describe safety rules and equipment	Critical Thinking	Homework, Written Exams, Lab Manual Assignment 16-2 SPOL
2. Describe various Joint designs	Critical Thinking	Homework, Written Exams, Lab Manual Assignments 16-7 and 16-8 SPOL

3. Describe the effects of welding parameters in GTAW	Critical Thinking	Homework, Written Exams Lab Manual Assignment 15- Welding Quiz SPOL
4. Weld various structural materials	Critical Thinking	Homework, Written Exams, Lab Manual Assignments 16- 6 SPOL

**Academic Dishonesty:** Any incident of academic policy will be dealt with in accordance with college policy and the **Student Handbook**. **Academic dishonesty – such as cheating on exams is an extremely serious** offense and will result in a **grade of zero** on that exam and the student will be referred to the Office of Student Conduct for the appropriate discipline action.

**Student Concerns:** If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Derrick Lewis Department Chair 409 933-8607/dlewis22@com.edu.

**Course outline:**

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Week#	Day/Date	Topic	Reading Assignments & Homework Due Dates
1	M 6-3-24	Run, Hide, Fight Intro + Syllabus + Expectations + Explain Grading % + Welding Safety Rules and Welding Equipment	
	W 6-5-24	Welding Lecture 2-hour lab	
	M 6-10- 24	Welding Lecture 2-hour lab	
2	W 6--12- 24	Welding Lecture 2-hour lab	Chapter 18 Key Terms

	M 6-17- 24	Welding Lecture 2-hour lab	Chapter 18 Review Questions
	W 6-19- 24	Welding Lecture 2-hour lab	Chapter 18 Quiz
3	M 6-24- 24	Open lab	
	W 6-26- 24	Chapter 18 exam and homework due 2-hour lab	Chapter 18 Exam Due
	M 7-1--24	Chapter 18 exam and homework due 2-hour lab	Chapter 18 Exam Due
4	W 7-3-24	Welding Lecture 2-hour lab	Chapter 19 Key Terms
	M 7-8-24	Welding Lecture 2-hour lab	Chapter 19 Review Questions
	W 7-10-- 24	Welding Lecture 2-hour lab	Chapter 19 Quiz
5	M 7-15- 24	Chapter 19 exam and homework due 2-hour lab	Chapter 19 Exam Due
	W 7-17- 24	Chapter 19 exam and homework due 2-hour lab	Chapter 19 Exam Due
	M 7-22- 24	Chapter 19 exam and homework due 2-hour lab	Chapter 19 Exam Due
6	W 7-24- 24	Welding Lecture 2-hour lab	Chapter 26 Key Terms
	M 7-29- 24	Welding Lecture 2-hour lab	Chapter 26 Review Questions

	W 7-31- 24	Welding Lecture 2-hour lab	Chapter 26 Quiz
7	M 8-5-24	Chapter 26 exam and homework due 2-hour lab	Chapter 26 Exam Due
	W 8-7--24	Chapter 26 exam and homework due 2-hour lab	Chapter 26 Exam Due
	W 8-7-24	Chapter 26 exam and homework due 2-hour lab	Chapter 26 Exam Due
		OPEN LAB CONTEXTUALIZED LECTURE	

## Institutional Policies and Guidelines

**Grade Appeal Process:** Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook [https://www.com.edu/student-services/docs/Student\\_Handbook\\_2023-2024\\_v2.pdf](https://www.com.edu/student-services/docs/Student_Handbook_2023-2024_v2.pdf). *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

**Academic Success & Support Services:** College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

**ADA Statement:** Any student with a documented disability needing academic accommodations is requested to contact Kimberly Lachney at 409-933-8919 or [klachney@com.edu](mailto:klachney@com.edu). The Office of Services for Students with Disabilities is located in the Student Success Center.

**Textbook Purchasing Statement:** A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Withdrawal Policy:** Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1<sup>st</sup> 5-week session is July 1. The last date to

withdraw from the 10-week session is July 30. The last date to withdraw for the 2<sup>nd</sup> 5-week session is August 2.

**FN Grading:** The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

**Early Alert Program:** The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

**Resources to Help with Stress:**

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at [deanofstudents@com.edu](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).