WLDG-2406-221C3
Intermediate Pipe Welding
SPRING 2025
MON/WED 6:00PM-9:20PM

Instructor: Rico Brown, rbrown@com.edu, 409-933-8380

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)

Student hours and location Mon-Thur11:00 am-1:00 pm Welding Technology Office

Required Textbook:

Welding Principles and Applications (Larry Jeffus)
(ISBN-13: 978-0-3573-7765-9)
(ISBN-13: 978-0-357-37769-7)
The Hard back and Lab book are required.

Course Description
A comprehensive course on the welding of pipe using the shielded metal arc welding (SMAW) process. Topics covered include electrode selection, equipment setup, and safe shop practices. Welds will be done using various positions 5G and 6G

Course requirements:

Course requirements/Lab Assignments **WLDG_2406**	Performance Rating	Date	Instructor initials	Student Initials
1. Identify proper safety equipment tools. SPOL				
2. Required pipe preparation. SPOL				
3. Performs weld using various positions. SPOL				
4. Describe equipment. SPOL				

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5. Execute corrective actions to repair surface flaws on welds and base metals in pipe.				
6. Examine tack, intermediate layers and completed welds in pipe.				
7. Examine cut surfaces and edges of prepared base metal pipe				
8. Make 5G, non fixed vee groove welds, on carbon steel pipe 6" in diameter all welds will start at 6 at clock position E6010 root pass and hot pass E7018 3/32 diameter filler pass and cap. All welds are uphill position.				
9. Make 5G, fixed vee groove welds on carbon steel pipe 6" diameter E6010 5P+ 1/8" diameter root pass, hot pass, E-7018-3/32 or 1/8' diameter. filler pass and cap. All welds are uphill position and **must pass the guided must pass bend test.**				
10. Make 6G, fixed vee groove welds on carbon steel pipe 6" diameter E6010 5P+ 1/8" diameter root pass, hot pass, E7018 3/32 filler pass and cap. All welds are uphill position and **must pass the guided must pass bend test.**				
11. Make 6G, fixed vee groove welds on carbon steel pipe 6" diameter E6010 5P+ 1/8" diameter root pass, hot pass, E7018 1/8 filler pass and cap. All welds are uphill position and **must pass the guided bend test**.				

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 1 thru 7=D
4. Student must 71 thru 80 on Exams and complete Lab Objectives 1 thru 8=C
5. Student must 81 thru 90 on Exams and complete Lab Objectives 1 thru 9=B
6. Student must 91 thru 100 on Exams and complete Lab Objectives 1 thru 10=A

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. More than 6 absences may result in being dropped from Class!!!!

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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

Student Learner Outcome	**Maps To Competency**	**Assessed Via This Assignment**
Identify proper safety equipment and tools	Critical thinking	Homework, Written Exams, Lab Manual Assignment, 5-1
Required pipe preparation	Critical thinking	Homework, Written Exams, Lab Manual Assignments 5-pages 61,62,and 63
Describe equipment	Critical thinking	Homework, Written Exams, Lab Manual Assignment 4- page 30
Performs weld using various positions	Critical thinking	Homework, Written Exams, Lab Manual Assignments, 5-5, and 5-8

referred to the Office of Student Conduct for the appropriate discipline action

Concerns/Questions Statement: 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:

Week#	Day/Date	Topic	Reading Assignments & Homework Due Dates
1	M 1-13-25	Intro + Syllabus + Expectations + Explain Grading % + Welding Safety Rules and Welding Equipment	
	W 1-15-25	Welding Lecture 2 Hours lab	
2	M 1-20-25	MLK HOLIDAY	
	W 1-22-25	Welding Lecture 2 Hours lab	Chapter 27 key terms 1-15
3	M 1-27-25	Welding Lecture 2 Hours lab	Chapter 27 review questions 1-15
	W 1-29-25	Welding Lecture 2 Hours lab	Chapter 27 review questions 16-30
4	M 2-3-25	Welding Lecture 2 Hours lab	Chapter 27 quiz #1
	W 2-5-25	Welding Lecture 2 Hours lab	Chapter 27 quiz #2
5	M 2-10-25	Chapter 27 exam 1 hours lab	
	W 2-12-25	Welding Lecture 2 Hours lab	
6	M 2-17-25	Welding Lecture 2 Hours lab	
	W 2-19-25	Welding Lecture 2 Hours lab	
7	M 2-24-25	Welding Lecture 2 Hours lab	Chapter 24 key terms
	W 2-26-25	Welding Lecture 2 Hours lab	Chapter 24 review questions
8	M 3-3-25	Welding Lecture 2-hour lab	Chapter 24 review questions
	W 3-5-25	Welding Lecture 2-hour lab	Chapter 24 quiz #1
9	3-10-25	Welding Lecture 2-hour lab	Chapter 24 quiz #2
	3-12-25	Chapter 24 exam 1-hour lab	
	M 3-17-25	SPRING BREAK	
	W 3-19-25	SPRING BREAK	
10	M 3-24-25	FINAL WEEK FOR MAKE UP EXAMS & ASSIGNMENTS	
	W 3-26-25	FINAL WEEK FOR MAKE UP EXAMS & ASSIGNMENTS	

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11	M 3-31-25	Open Lab	
	W 4-2-25	Open Lab	
12	M 4-7-25	Open Lab	
	W 4-9-25	Open Lab	
13	M 4-14-25	Open Lab	
	W 4-16-25	Open Lab	
14	M 4-21-25	Open Lab	
	W 4-23-25	Open Lab	
15	M 4-28-25	Open Lab	
	W 4-30-25	Open Lab	
16	M 5-5-25	Open Lab	
	W 5-7-25	LAST DAY OF CLASS	

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_2024-2025_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.*
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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, Student Accessibility Services Coordinator
Phone: 409-933-8919
Email: AccessibilityServices@com.edu
Location: COM Doyle Family Administration Building, 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.

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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 1st 8-week session is February 26. The last date to withdraw from the 16-week session is April 21. The last date to withdraw for the 2nd 8-week session is April 30.

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 or communityresources@com.edu.

5G SMAW Checklist

	Needs Improvement	Standards Met
Root Pass		
Root Penetration – 1/16 – 3/32 penetration		
Weld Undercut – no undercuts (if there are undercuts the weld is being made too fast or with too much heat)		
Weld Tie In (Restarts) – uniform with no undercuts		
Cover Pass		
Size – each weld bead should not exceed twice the size of the welding rod		
Weld Undercut – no undercuts (if there are undercuts the weld is being made too fast or with too much heat)		
Weld Porosity – no pin holes in weld		
Continuous Welding Bead – straight uniform bead		

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Cold Lap – need to run at proper temperature		

SYLLABUS CHANGES:

The instructor reserves the right to make changes **to this syllabus during the semester as needed to facilitate instruction and/or course needs.**

The Speaking, Reading and Writing Center provides free tutoring services to students, staff and faculty seeking assistance for writing, reading and oral presentations for academic and non-academic assignments/projects. Located in the Technical Vocational Building 1306, the center provides face to face and online tutoring sessions in a welcoming environment. Appointments can be made in person, or on the center scheduler at com.mywconline.com, or by clicking the SRWC icon on the COM website.

Run, Hide, Fight *
https://www.youtube.com/watch?v=5VcSwejU2D0

Last Resort ACTIVE SHOOTER SURVIVAL Measures by Alon Stivi
https://www.youtube.com/watch?v=r2tIeRUbRHw

Surviving an Active Shooter Event - Civilian Response to Active Shooter
https://www.youtube.com/watch?v=j0It68YxLQQ

Make the Call *
https://www.youtube.com/watch?v=AWaPp-8k2p0

Welding Safety Rules

1. **No Horseplay of any kind**
2. **No lighters or matches in the welding lab.**
3. **Safety glasses(Z87) or prescription glasses with Z87 frame and lens MUST always be worn in labs and outside when students are working, sunglasses are NOT acceptable.**
4. **Shaded cutting goggles or shaded cutting face shield must be worn when cutting with safety glasses.**

5. **Never use machinery or equipment unless instructed by faculty instructor or lab assistant.**
6. **Proper fitting clothing must always be worn in the lab (100% cotton, FRC)**
7. **Report all accidents immediately.**
8. **Grinding shields must be worn when grinding with safety glasses.**
9. **No tobacco of any type in the welding building**
10. **No spitting anywhere in the welding labs**
11. **Welding hoods with a shade of 9,10,11 or 12 must be worn while welding.**
12. **Tool rest for tungsten grinder must be maintained at 1/16 distance from wheel.**
13. **Gloves are required while welding, cutting, and handling metal in the welding lab.**
14. **FAILUE TO FOLLOW SAFETY RULES WILL RESULT BEING REMOVED FROM CLASS**

Sign_____