WLDG-1428
Introduction to Shielded Metal Arc Welding S.M.A.W.
Fall 2022

MW-1:30pm-4:50pm

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

Communicating with your instructor: It is the students' responsibility to check his or her COM email. 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.

Student hours and location Mon-Th 11:00 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 study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions

Course requirements:

Lab Assignments	Performance Rating	Date Completed	Instructor =s Initials	Trainee=s Initials
1. Make a 2F fillet weld on 3/16" carbon steel plate				
2. Make a 3F fillet weld on 3/16" carbon steel plate				
3. Make a 4F fillet weld on 3/16" carbon steel plate				
4. Make a 1G groove weld on 3/8" carbon steel plate				

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5. Make a 2G groove weld on 3/8" carbon steel plate				

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 2=D
4. Student must 71 thru 80 on Exams and complete Lab Objectives 1 thru 3=C
5. Student must 81 thru 90 on Exams and complete Lab Objectives 1 thru 4=B
6. Student must 91 thru 100 on Exams and complete Lab Objectives 1 thru 5=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.

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Student Learner Outcome	Maps to Core Objective	Assessed Via This Assignment
Demonstrate safety procedures associated with oxy-fuel process	Social Responsibility	Homework, Chapter 2 Written Exams, Lab Manual Assignments 2-1and 2-2
Demonstrate safety procedures associated with arc welding process	Personal Responsibility	Homework, Chapter 2 Written Exams, Lab assignments.2-5 and 2 -6
Perform basic welds using oxy-fuel and arc welding equipment.	Critical thinking	Homework, Chapter 1 Written Exams, Lab assignments 1-13
Identify ferrous and nonferrous metals.	Critical thinking	Homework, Chapter 3 Written Exams, Lab assignments 3-14,3-14
Accurately calculate the amperage on a welding machine	Empirical and Quantitative Skills	Homework, Chapter 3 pages 65, 66

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

Week#	Day/Date	Topic	Reading Assignments & Homework Due Dates
1	M 8-22-22	Intro + Syllabus + Expectations + Explain Grading % + Welding Safety Rules + Welding Equipment	
	W 8-24-22	Welding Lecture-Simulator 2-hours lab	
2	M 8-29-21	Welding Lecture-Simulator 2-hours lab	Chapter 2 key terms 1 thru 14
	W 8-31-22	Welding Lecture-Simulator 2-hours lab	Chapter 2 key terms 15 thru 28
3	M 9-5-22	Closed Labor Day	
	W 9-7-22	Welding Lecture-Simulator 2-hours lab	Chapter 2 review questions 1 thru 20
4	M 9-12-22	Welding Lecture-Simulator 2-hours lab	Chapter 2 review questions 21 thru 35
	W 9-14-24	Welding Lecture-Simulator 2-hours lab	Chapter 2 review questions 36 thru 52
5	M 9-19-22	Welding Lecture-Simulator 2-hours lab	Chapter 2 quiz # 1, 3 & 4 in lab manual
	W 9-21-22	Class Exam chapter 2	
6	M 9-26-22	Welding Lecture-Simulator 2-hours lab	Chapter 1 key terms
	W 9-28-22	Welding Lecture-Simulator 2-hours lab	Chapter 1 review questions 1 thru 15
7	M 10-3-22	Welding Lecture-Simulator 2-hours lab	Chapter 1 Review questions 16 thru 27
	W 10-5-22	Welding Lecture-Simulator 2-hours lab	Chapter 1 quiz #1,3,4,
8	M 10-10-22	Welding Lecture-Simulator 2-hours lab	Chapter 1 quiz #5,6,7&8
	W 10-12-22	Class Exam chapter 1	
9	M 10-17-22	Welding Lecture-Simulator 2-hours lab	Chapter 3 Key Terms
	W 10-19-22	Welding Lecture-Simulator 2-hours lab	Chapter 3 review questions 1 thru 15
10	M 10-24-22	Welding Lecture-Simulator 2-hours lab	Chapter 3 review questions 16 thru 30
	W 10-26-22	Welding Lecture-Simulator 2-hours lab	Chapter 3 quiz #1
11	M 10-31-22	Class Exam chapter 3	
	W 11-2-22	Welding Lecture-Simulator 2-hours lab	
12	M 11-7-22	Welding Lecture-Simulator 2-hours lab	
	W 11-9-22	Welding Lecture-Simulator 2-hours lab	

13	M 11-14-22	MAKE UP EXAMS & ASSIGNMENTS	
	W 11-16-22	MAKE UP EXAMS & ASSIGNMENTS.	
14	M 11-21-22	FINAL WEEK FOR MAKE UP EXAMS & ASSIGNMENTS	
	W 11-23-22	FINAL WEEK FOR MAKE UP EXAMS & ASSIGNMENTS	
15	M 11-28-22	OPEN LAB	
	W 11-30-22	OPEN LAB	
16	M 12-5-22	OPEN LAB	
	W 12-7-22	Last Day of Class	

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://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.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.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

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 Michelle Brezina at 409-933-8124 or mvaldes1@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 1st 8-week session is October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2nd 8-week session is December 1.

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.

1G SMAW Checklist

	Needs Improvement	Standards Met
Root Pass		
Root Penetration – no more than 1/16 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		
Cold Lap – need to run at proper temperature		

The lab assignments are a major part of the course outline each student will progress at their own pace. However, each student must pass at least number 3 lab assignment to pass the class at a minimum requirement to A.W.S. Standards. Student must demonstrate 3 Vee-Butt welds complete and consecutively meeting AWS standards. Any student not passed assignment 3 by (W-day) will meet with instructor about their academic progress. The student and instructor will discuss any issue and/or distractions causing the problem. Faculty may, at their discretion withdraw a student due to an inability to maintain the prescribe minimum rate of progress stated in the course syllabi, or behavior detrimental to the learning process of the student or class.

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.

Welding Safety Rules

1. **No Horseplay of any kind**
2. **No lighters or matches in the weld lab**
3. **Safety glasses(Z87) or prescription glasses with Z87 frame and lens MUST be always worn in labs and outside when students are working, sunglasses are NOT acceptable**
4. **Shaded cutting googles 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 be warn at all times 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 hood 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 weld lab**
14. **FAILUE TO FOLLOW SAFETY RULES WILL RESULT BEING REMOVED FROM CLASS**