College of the Mainland

WLDG-1425-ALL
Oxy-Acetylene Welding and Cutting, And Other Cutting Processes
Fall 2021
MON/WED 6:00PM-9:20PM

Instructor: Marissa Fisher, mfisher9@com.edu , 409-933-8380 or 409-933-8321

Student hours and location MTWTH 4:15PM – 5:20PM, Welding Technology Office Hours

Required Textbook: 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
An introduction to oxy-fuel welding and cutting, including history and future in welding, safety, setup and maintenance of oxy-fuel welding, and cutting equipment and supplies. The student will describe or explain oxy-fuel welding and cutting safety procedures and identify and classify fuels and filler metals. The student will perform entry level oxy-fuel welding and cutting operations and select proper equipment and materials

Course requirements:

WLDG 1425 Lab Assignments	**Performance Rating**	**Date Completed**	**Instructor's Initials**	**Trainee's Initials**
Plasma Arc Cutting				
1. Perform safety inspections of equipment and accessories				
2. Operate manual plasma arc cutting equipment				
3. Perform cutting on Tee Plates				
4. Perform cutting on 3/8 "plates				
5. Perform cutting on pipe				
Air Carbon Arc Cutting				
6. Perform safety inspections of equipment and accessories				

7. Operate manual air carbon arc cutting equipment				
8. Perform removing welding from tee plates				
9. Perform removing welds from 3/8” plates				
10. Perform removing welds from pipe				
Machine Oxy-fuel Gas Cutting				
11. Perform straight cutting operations on plain carbon steel				
12. Perform bevel cutting operations on plain carbon steel				
Manual Oxy-fuel Gas Cutting and Welding				
13. Operate manual oxy-fuel gas cutting equipment				
14. Perform straight cutting operations on plain carbon steel				
15.Perform beveled cutting operations on plain carbon steel				
16. Remove weld metal on plain carbon steel using weld washing techniques				
17. Perform straight cutting operations on carbon steel pipe				
18.. Perform beveled cutting operations on carbon steel pipe 5G				
19. Perform Manual oxy-fuel gas welding on plain carbon steel				

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.

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

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
Demonstrate oxy-fuel welding and cutting safety procedures	Teamwork	Homework, Written Exams, Lab Manual Quiz Chapter 7. Students will do a safety inspection in the welding lab as a group of two or more students in front of the instructor
Identify and classify fuels and filler metals	Critical thinking	Homework, Written Exams, Lab Manual Assignment. Welding Quiz Chapter 31.
Perform entry-level oxy-fuel welding and cutting operations	Critical thinking	Homework, Written Exams, Lab Manual Quiz Chapter 32
Select proper equipment and materials.	Critical thinking	Homework, Written Exams Lab Manual Quiz Chapter 33

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

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
	M 8-23-21		
1	W 8-25-21	Welding Lecture 2 hours Lab	Chapter 7 key terms 1 thru 9

2	M 8-30-21	Class Review and Quiz # 1 on Chapter 7 2 hours lab	Chapter 7 key terms 10 thru 19
	W 9-1-21	Welding Lecture 2 hours lab	Chapter 7 key terms 20 thru 29
3	M 9-6-21	Welding Lecture 2 hours lab	
	W 9-8-21	Welding Lecture 2 hours lab	Chapter 7 key terms thru 39
4	M 9-13-21	Welding Lecture 2-hour lab	45 minutes time limit on quiz. No make-up on quiz
	W 9-15-21	Welding Lecture 2-hour lab	Chapter 7 review questions 1 thru 15
5	M 9-20-21	Welding Lecture 2 hours lab	Chapter 7 review questions 16 thru 30
	W 9-22-21	Welding Lecture 2 hours lab	Chapter 7 review questions 31 thru 43
6	M 9-27-21	Class Review and Exam on Chapter 7	3-hour time limit on exam
	W 9-29-21	Welding Lecture 2-hour lab	Chapter 31 key terms 1 thru 13
7	M 10-4-21	Welding Lecture 2-hour lab	Chapter 31 key terms 14 thru 26
	W 10-6-21	Welding Lecture 2-hour lab	Chapter 31 key terms 27 thru 38
8	M 10-11-21	Class Review and Quiz # 2 on Chapter 31 2 hours lab	45 minutes time limit on quiz. No make-up on quiz
	W 10-13-21	Welding Lecture 2-hour lab	Chapter 31 review questions 1 thru 12
9	M 10-18-21	Welding Lecture 2-hour lab	Chapter 31 review questions 13 thru 23
	W 10-20-21	Welding Lecture 2-hour lab	Chapter 7 review questions 24 thru 34
10	M 10-25-21	Welding Lecture-Simulator 2 hours lab	Chapter 7 review questions 35 thru 45
	W 10-27-21	Class Review and Exam on Chapter 31	3-hour time limit on exam
11	M 11-1-21	Welding Lecture 2 hours lab	Chapter 31 key terms 1 thru 15
	W 11-3-21	Welding Lecture 2-hour lab	Chapter 32 key terms 16 thru 26
12	M 11-8-21	Class Review and Quiz # 3 on Chapter 32 2 hours lab	45 minutes time limit on quiz. No make-up on quiz
	W 11-10-21	Welding Lecture 2-hour lab	Chapter 32 review questions 1 thru 20
13	M 11-15-21	Class review and Exam on Chapter 32	3-hour time limit on exam
	W 11-17-21	Welding Lecture 2-hour lab	Chapter 33 key terms 1 thru 15
14	M 11-22-21	Welding Lecture 2-hour lab	Chapter 33 key terms 16 thru 26
	W	Closed Thanksgiving	

	11-24-21		
15	M 11-29-21	Class Review and Quiz # 4 on Chapter 33 2 hours lab	Chapter 33 review questions 1 thru 20
	W 12-1-21	Welding Lecture 2-hour lab	Chapter 32 review questions 21 thru 34
16	M 12-6-21	Class review and Exam on Chapter 33	3-hour time limit on exam
	W 12-8-21	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 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: College of the Mainland adheres to all applicable federal, state and local laws, regulations and guidelines with respect to providing accommodations to students with disabilities. If you have a disability and need special accommodation, the instructor will work with you to provide a reasonable accommodation to ensure that you have a fair opportunity to perform in this class. Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in Student Success Center. Appropriate steps will then be taken to assist you in your needs.

Counseling Statement: Any student that is needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis

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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 adviser. 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 6. The last date to withdraw from the 16-week session is November 19. The last date to withdraw for the 2nd 8-week session is December 2.

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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

Early Warning Program: The Counseling Center at College of the Mainland has implemented an Early Warning Program. 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 Warning Program you will be contacted by someone in the Counseling Department. As student success and retention is very important to us, someone from the Counseling Department will schedule a meeting with you to see what assistance they can offer for you to meet your academic goals.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance, when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.

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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.

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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 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**