



**WLDG-1425-112CL**  
**Oxy-Acetylene Welding and Cutting,**  
**And Other Cutting Processes**  
**Summer 2021**  
**Mon-Wed 1pm-4:45pm**

**Instructor:** Rico Brown, [rbrown@com.edu](mailto: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:** M-W, 12 PM-1:00 PM ; 4:45PM -5:30PM Welding Technology Office

**Required Textbook:** Welding Principles and Applications (Larry Jeffus)  
(ISBN-13: 978-1-305-49469-5) (ISBN-10: 1-305-49469-5)  
(ISBN-13: 978-1-305-49470-1) (ISBN-10: 1--305-49470-9)  
The Hard back and Lab book is required.

**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.

**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

**Student Learner Outcomes:** Upon successful completion of this course, students will:

1. Demonstrate oxy-fuel welding and cutting safety procedures.
2. Identify and classify fuels and filler metals.
3. Perform entry-level fuel welding and cutting operations.
4. Select proper equipment and materials.

**General Education Core Objectives:** Students successfully completing this course will demonstrate competency in the following Core Objectives:

1. **Critical Thinking Skills:** Students will demonstrate creative thinking, innovation, and the ability to analyze, evaluate, and synthesize information.

[Type here]

2. **Teamwork:** Students will do a safety inspection in the welding lab as a group of two or more in front of the instructor.

<b>Student Learner Outcome</b>	<b>Maps to Core Objective</b>	<b>Assessed via this Assignment</b>
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

**Attendance Policy:** Attendance and Tardiness will be taken each class period.

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

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**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](http://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](http://com.edu/coronavirus) for future updates.

**Withdrawal Policy:** In order to receive a letter grade of “W” the student must withdraw before the official withdrawal date for the semester. August 2<sup>nd</sup> 2021 is withdrawal day.

**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 are in need of 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 students with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409- 933-8520 or [hbankston@com.edu](mailto: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.

<http://www.com.edu/student-services/counseling.php>

**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 in order for you to meet your academic goals.

**Classroom Conduct Policy:** College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the on-line Student Handbook. <http://www.com.edu/student-services/student-handbook.php> . Students should act in a professional manner at all times. Disruptive students will be held accountable according to college policy. Any violations of the Code of Conduct will result in a referral to the Office for student Conduct and may result in dismissal from this class.

**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.

**Plagiarism:** Plagiarism is using someone else's words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for the appropriate discipline action.

[www.plagiarism.org](http://www.plagiarism.org)

### **Make-Up 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. All homework assignments are to be done outside of class time.

### **Grading Scale:**

65-69 Plus student must complete Lab Objectives 1-15 =D

70-79 Plus student must complete Lab Objectives 1-16 =C

80-89 Plus student must complete Lab Objectives 1-17=B

90-100 Plus student must complete Lab Objectives 1-18=A

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**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 Victor Woods, Department Coordinator, 409-933-8380/ 409-933-8321 at [vwoods@com.ed](mailto:vwoods@com.ed)

**Course outline:**

<b>Week#</b>	<b>Day/Date</b>	<b>Topic</b>	<b>Reading Assignments &amp; Homework Due Dates</b>
1	Mon 6-07-21	Run, Hide, Fight Intro + Syllabus + Expectations + Explain Grading % + Welding Safety Rules and Welding Equipment	Chapter 7 Key Terms
	Tue 6-08-21	Welding Lecture 2-hours lab	Chapter 7 Review Questions
	Wed 6-09-21	Welding Lecture 2-hours lab	Chapter 7 Quiz
2	Mon 6-14-21	Chapter 7 Exam Due 2-hours lab	All Chapter 7 Homework and Exam Due
	Tue 6-15-21	Chapter 7 Exam Due 2-hours lab	All Chapter 7 Homework and Exam Due
	Wed 6-16-21	Chapter 7 Exam Due 2-hours lab	All Chapter 7 Homework and Exam Due
3	Mon 6-21-21	Welding Lecture 2-hours lab	Chapter 31 Key Terms
	Tue 6-22-21	Welding Lecture 2-hours lab	Chapter 31 Review Questions
	Wed 6-23-21	Welding Lecture 2-hours lab	Chapter 31 Quiz
4	Mon 6-28-21	Chapter 31 Exam Due 2-hours lab	All Chapter 31 Homework and Exam Due
	Tue 6-29-21	Chapter 31 Exam Due 2-hours lab	All Chapter 31 Homework and Exam Due
	Wed 6-30-21	Chapter 31 Exam Due 2-hours lab	All Chapter 31 Homework and Exam Due
5	Mon 7-05-21	Welding Lecture 2-hours lab	Chapter 32 Key Terms
	Tue 7-06-21	Welding Lecture 2-hours lab	Chapter 32 Review Questions
	Wed 7-07-21	Welding Lecture 2-hours lab	Chapter 32 Quiz

6	Mon 7-12-21	Chapter 32 Exam Due 2-hours lab	All Chapter 32 Homework and Exam Due
	Tue 7-13-21	Chapter 32 Exam Due 2-hours lab	All Chapter 32 Homework and Exam Due
	Wed 7-14-21	Chapter 32 Exam Due 2-hours lab	All Chapter 32 Homework and Exam Due
7	Mon 7-19-21	Welding Lecture 2-hours lab	Chapter 33 Key Terms
	Tue 7-20-21	Welding Lecture 2-hours lab	Chapter 33 Review Questions
	Wed 7-21-21	Welding Lecture 2-hours lab	Chapter 33 Quiz
8	Mon 7-26-21	Chapter 33 Exam Due 2-hours lab	All Chapter 33 Homework and Exam Due
	Tue 7-27-21	Chapter 33 Exam Due 2-hours lab	All Chapter 33 Homework and Exam Due
	Wed 7-28-21	Chapter 33 Exam Due 2-hours lab	All Chapter 33 Homework and Exam Due
9	Mon 8-02-21	OPEN LAB CONTEXTUALIZED LAB LECTURE	
	Tue 8-03-21	OPEN LAB CONTEXTUALIZED LAB LECTURE	
	Wed 8-04-21	OPEN LAB CONTEXTUALIZED LAB LECTURE	
10	Mon 8-09-21	OPEN LAB CONTEXTUALIZED LAB LECTURE	
	Tue 8-10-21	OPEN LAB CONTEXTUALIZED LAB LECTURE	
	Wed 8-11-21	OPEN LAB CONTEXTUALIZED LAB LECTURE	

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 the exam, 25% written exams, and 50% is skills test.
3. All Grades and Lab Assignments will be Posted on Blackboard.

1425 Lab Assignments	Performance Rating	Date Completed	Instructor's Initials	Trainee's Initials
<b>Plasma Arc Cutting</b>				
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				
<b>Air Carbon Arc Cutting</b>				
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				
<b>Machine Oxy-fuel Gas Cutting</b>				
11. Perform straight cutting operations on plain carbon steel				
12. Perform bevel cutting operations on plain carbon steel				
<b>Manual Oxy-fuel Gas Cutting and Welding</b>				
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				

## Core competencies Assessments

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<b>Critical thinking</b>	The student will Demonstrate equipment safety checks
<b>Critical thinking</b>	The student will Identify Flux Cored Arc Welding (FCAW) equipment parts
<b>Critical thinking</b>	The student will Demonstrate the procedures for welding a butt joint, a T-joint, in the flat, horizontal, and overhead positions
<b>Critical thinking</b>	The student will Demonstrate the procedures for making an open butt v-groove weld.

### **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](http://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 weld lab**
- 3. Safety glasses(Z87) or prescription glasses with Z87 frame and lens MUST be worn at all times in labs and outside when students are working, sun glasses 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 be worn 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.FAILURE TO FOLLOW SAFETY RULES WILL RESULT BEING REMOVED FROM CLASS**