

Syllabus

Course Description

WLD 130 FCAW

This course will prepare the student(s) for the welding industry through topics that include: Welding on plate steel in the Flat, Horizontal, Vertical and Overhead positions. Welding Theory of the FCAW process is covered, gas shielded and self-shielded electrodes, and filler metal selection. Fillet and Groove welds in all positions. Guided bend tests will be performed in this course to test weld soundness.

Major Instructional Areas

- Chapter 12 Flux Cored Arc Welding Equipment, Setup, and operation.
- Chapter 13 Flux Cored Arc Welding of plate.

Major Lab Areas

- FCAW in all positions on plate
- Fillet welds in all positions.
- Groove welds in all positions.
- Guided Bend test.

Required Textbooks

- Welding: Principles and Applications 7th Edition, by Larry Jeffus. Delmar, Cengage Learning, 2012.

Lab Equipment

- *See Student Welding Kit handout.

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Learning Objectives

Chapter 12 Flux Cored Arc Welding Equipment, Setup, and operation.

- Electrical polarities
- Flux
- Welding Techniques
- Self-Shielded electrode
- Equipment Setup.
- Gas-Shielded electrode.
- Modes of metal transfer.
- Shielding gases.
- Welding Terms and definitions.

Chapter 13 Flux Cored Arc Welding of plate.

- Practices.
- Flat position welds.
- Square groove welds.
- V Groove welds. 1G, 2G, 3G, 4G
- Fillet welds. 1F, 2F, 3F, 4F
- Thin gauge material.
- Bend test to be performed.

Attendance

Employers expect employees to show up on time for every scheduled work day. Likewise, the Academic Foundations Department expects students to show up on time for every scheduled class day. Attendance is crucial for your success.

- If you miss an entire class, you are marked absent for the number of hours of that class.
- If you miss part of a class, this is how attendance is impacted:
 - Missing more than 5 minutes of a class meeting = **1** class hour absence
 - Missing up to 5 minutes of a course hour = Tardy
 - Three tardies = **1** absence

***Missing more than 10% of class will result in automatic Failure.**

***15 week course meets 2 times a week for a total of 8 hrs a week = 120 hrs**

10% of 120 hrs = 12 hours or 3 days max

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If you are absent:

Each student is expected to be prepared for class upon return. You can obtain the phone numbers of two classmates to call for assignment information, or e-mail the instructor. As you are expected to attend every class, it is not the instructor's responsibility or obligation to re-teach material to students who are absent.

Expectation of Students:

As college students, you are expected to show you have the skills, work habits, and professional courtesy necessary to participate in your professional training at CSTCC. Student responsibilities are outlined in the Student Code of Conduct in the Cincinnati State Catalog. To be successful in this course you need to:

- Read the syllabus and consult it regularly. **It is a contract for learning.**
- Be on time for class and remain for the entire class period.
- Come to class with the required materials. **You must have the textbook before the second week of class.**
- Must have acquired PPE (**Personal Protective Equipment**) by 2nd week of class.

Proper PPE (Personal Protective Equipment)

- No student shall be allowed to enter the welding lab with-out the proper PPE.
- **Each day after the first week a student does not have proper PPE to weld will result in No lab time.**
- In the workplace, you are expected to come prepared each day. By signing the syllabus, you have agreed to come to class with the required materials and assignments.

Disruptive conduct

Disruptive conduct includes any of the following:

- ✓ **Obnoxious, unruly behavior**
 - ✓ **Disrespect to instructor or other students**
 - ✓ **Refusal to participate in class**
 - ✓ **Talking during class**
 - ✓ **Chronic lack of preparedness**
- Arrange for childcare. Children are not permitted in class. In addition, guests are only permitted with the permission of the instructor.

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- **Switch off all personal electronic devices before entering the classroom.** Under no circumstances is a student to send text messages during class. If there is an imperative need to have your phone on during class, please let the instructor know before class begins.
- Do not eat food during class (only drinks are permitted, not at the computer stations.)
- **Seek additional help from me.**
- The first time your behavior disrupts classroom order, you will be given a warning. The second time you will be asked to leave and will need special permission from the chair person to re-enter. Any further disruption will result in a referral to the Behavior Intervention Team or your instructor filing a “Violation of the Student Code of Conduct” formal complaint with the Dean of Students.

Academic Honesty

Cincinnati State’s Student Code of Conduct prohibits academic dishonesty (such as cheating or plagiarism). Students in violation of the code will be subjected to disciplinary action as outlined in the Academic Integrity Policy and Procedures in the Cincinnati State catalog.

- **Under no circumstances will IPOD’s, Phones or other electronic devices be allowed to be used for test taking purposes.**

Make-up Exam Policy

There will be no make-up exams offered unless your reason for the absence was out of your control with proof. Must be approved by the chair person to make up the exam at a later date.

Assessment and Grading Scale

All of the following criteria must be met to pass this course:

- **Students must pass the AWS exam for FCAW with a 75% per the AWS.**
- **Students must complete the FCAW Lab assignments for full credit.**
- **Students must pass the Chapter exams with a 70%.**

If these criteria are met, your final grade will be determined by averaging the following course components:

AWS written exams = 20%

- FCAW.

Chapter written exams = 20%

- Use Study Guides.

Lab Assignments for FCAW welding = 60%

- Weld practice.

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All grades will be reported as letter grades according to the following scale:

- 90% - 100% = A
- 80% - 89% = B
- 70% - 79% = C
- 69% and below = F

The instructor reserves the right to modify the syllabus to meet the needs of the students.

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I have read the syllabus and assignment schedule for **WLD 130**. I understand that in order to be successful in this class, I must come to class prepared to work each day. I have read the instructor's requirements for attendance and grading and agree to follow these guidelines.

Student's Name

Student's Signature

Date



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