

Syllabus

Course Description

WLD 110 SMAW

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 SMAW process is covered, including striking the arc, polarities, electrode types, F-groups and filler metal selection. Groove welds in all positions. Guided bend test will be performed in this course to test weld soundness.

Major Instructional Areas

- Chapter 3 Shielded Metal Arc Equipment, Setup, and operation.
- Chapter 4 Shielded Metal Arc Welding of plate.
- Chapter 6 Advanced Shielded Metal Arc Welding.
- Chapter 27 Filler Metal Selection.

Major Lab Areas

- SMAW 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 3 **Shielded Metal Arc Equipment, Setup, and operation.**

- Electrical polarities
- Types of Power.
- Arc Blow
- Duty Cycle.
- Equipment Setup.
- Thermal cutting processes.
- Occupational opportunities.
- Metric Units.
- Welding Terms and definitions.

Chapter 4 **Shielded Metal Arc Welding of plate.**

- Arc Length.
- Electrode Angles.
- Electrode Manipulation.
- Striking the Arc.
- Travel Speed.
- Practice Welds.
- Flat, Horizontal welding. (5) Basic Joint types.

Chapter 6 **Advanced Shielded Metal Arc Welding.**

- Root Pass.
- Backing Strip.
- Hot Pass.
- Cover Pass
- Weld bead Sequencing.

Chapter 27 **Filler Metal Selection.**

- AWS Filler Metal Classification
- Carbon Steel electrodes.
- Solid wire types.
- Carbon Equivalent.

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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 15 minutes of a class meeting = 1 class hour absence
 - Missing up to 15 minutes of a course hour = Tardy
 - Two tardies = 1 course hour absence

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

***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

If you are absent:

Each student is expected to be prepared for class upon return. You can check for missed assignments on Blackboard, obtain the phone numbers of two classmates to call for assignment information, or e-mail the instructor. Do not call to inform that you will be absent or for the assignments you missed. 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.**
- Listen carefully to other students and give helpful feedback in small groups.
- Be prepared for class by having the assignments completed.
- To stay on task whole class is in session. 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 a Co-chair 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.

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- **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.
- **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 or the Writing Center on Main Campus when needed**

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.

Late Assignment Policy

- **Homework:**
 - All homework will be given a due date when assigned.
 - **Homework is due at the beginning of class.**
 - Incomplete homework will receive a zero "0" and will not be graded again.
 - 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.
 - In case of emergency situations, contact your instructor.
- **Assignments: Study Guides and Writing Assignments**
 - All major assignments will be given a due date when assigned.
 - All major assignments are due at the beginning of class.
 - Late assignments (any assignment turned in after the beginning of the class) will receive a 20% reduction in grade.

Make-up Exam Policy

There will be no make-up exams offered unless you meet certain criteria approved by the chair person to make up the exam at a later date.

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Assessment and Grading Scale

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

- Students must pass the AWS exam for SMAW with a 75%
- Students must complete all written exams with minimum score of 75%.
- Students must complete the SMAW Lab assignments.

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

AWS written exams = 20%

- SMAW.

Chapter written exams = 20%

- Use Study Guides.

Lab Assignments for SMAW welding = 60%

- Weld practice.
- Show up and be on time.

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

93 = 100% = A

84 = 92% = B

76 = 83% = C

under 75% = F

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

Disability Statement (Must be read aloud)

If you have a disability that may require accommodations, please contact the Cincinnati State Office of Disability Services to have it documented, assessed, and accommodations authorized. If authorized, ODS will provide a Letter(s) of Accommodation for you to give to your instructors. Every semester thereafter you will contact ODS to request your new letters of accommodation. To register or ask questions contact ODS at 513-569-1775 or email disabilities@cincinnatiastate.edu

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I have read the syllabus and assignment schedule for **WLD 110**. 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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