

**Clackamas Community College**

## Online Course/Outline Submission System

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 Show changes since last approval in red**Section #1 General Course Information****Department:** Welding**Submitter**

First Name: john

Last Name: phelps

Phone: 6378

Email: johnp

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**Course Prefix and Number:** WLD - 111B

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**# Credits:** 4**Contact hours**

Lecture (# of hours):

Lec/lab (# of hours): 88

Lab (# of hours):

Total course hours: 88

For each credit, the student will be expected to spend, on average, 3 hours per week in combination of in-class and out-of-class activity.

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**Course Title:** Shielded Metal Arc Welding (Stick)**Course Description:**

The second half of WLD-111 which provides the opportunity to acquire additional knowledge and skills needed to perform more advanced fillet and groove welds in vertical and overhead positions with the SMAW process. Welding codes, standards, and specifications will be reviewed.

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**Type of Course:** Career Technical Preparatory

Is this class challengeable?

**Yes**

Can this course be repeated for credit in a degree?

**No**

Is general education certification being sought at this time?

**No**

Does this course map to any general education outcome(s)?

**No**

Is this course part of an AAS or related certificate of completion?

**Yes**

**Name of degree(s) and/or certificate(s):** Welding AAS

Are there prerequisites to this course?

**Yes**

**Pre-reqs:** Pass WLD-111A

**Have you consulted with the appropriate chair if the pre-req is in another program?**

**No**

Are there corequisites to this course?

**No**

Are there any requirements or recommendations for students taken this course?

**No**

Are there similar courses existing in other programs or disciplines at CCC?

**No**

Will this class use library resources?

**Yes**

**Have you talked with a librarian regarding that impact?**

**No**

Is there any other potential impact on another department?

**No**

Does this course belong on the Related Instruction list?

**No**

**GRADING METHOD:**

A-F or Pass/No Pass

**Audit: Yes**

When do you plan to offer this course?

✓ **Not every term**

Is this course equivalent to another?

If yes, they must have the same description and outcomes.

**No**

Will this course appear in the college catalog?

**Yes**

Will this course appear in the schedule?

**Yes**

Student Learning Outcomes:

Upon successful completion of this course, students should be able to:

1. complete a safety test that includes applicable sections of the text book, Clackamas Community College safety rules and policies,
2. complete a progress chart of fillet welds with SMAW (Shielded Metal Arc Welding) electrodes in the horizontal, vertical and overhead positions using proper welding techniques,
3. complete a progress chart of groove welds with SMAW (Shielded Metal Arc Welding) electrodes in the horizontal, vertical, and overhead positions using proper welding techniques,
4. perform destructive and nondestructive testing,
5. interpret welding procedures specifications and certification requirements,
6. research welding codes and standards,
7. set up and operate carbon arc cutting equipment.

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***This course does not include assessable General Education outcomes.***

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Major Topic Outline:

1. Class orientation, safety, and shop practices.
2. Electrode selection and welding Techniques for horizontal, vertical, and overhead welding.
3. Destructive and nondestructive testing.
4. Fillet welds in the vertical and overhead positions on steel.
5. Welding procedures specifications and certification requirements.
6. Groove welds on steel in the horizontal, vertical, and overhead positions.
7. Welding codes and standards.
8. Carbon arc cutting.

Does the content of this class relate to job skills in any of the following areas:

- |                                      |           |
|--------------------------------------|-----------|
| 1. Increased energy efficiency       | <b>No</b> |
| 2. Produce renewable energy          | <b>No</b> |
| 3. Prevent environmental degradation | <b>No</b> |

4. Clean up natural environment **No**

5. Supports green services **No**

Percent of course: 0%

First term to be offered:

**Next available term after approval**

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