

**Clackamas Community College**  
Online Course/Outline Submission System

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### 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 - 150

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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:** Welding Processes

**Course Description:**

**Covers oxy-acetylene welding, brazing, cutting, stick welding, wire feed, oxy-fuel and plasma cutting. Includes: safety, electrical fundamentals, routine maintenance, minor repairs, and terms and definitions.**

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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?

**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?

- ✓ **Summer**
- ✓ **Fall**
- ✓ **Winter**

**✓ Spring**

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. pass a safety test that includes applicable sections of the text book, and CCC's safety rules and policies;
2. use the proper terms related to the various welding processes,
3. select the proper personal equipment needed to perform welds safely,
4. identify joint configurations used in welding and be able to apply their use,
5. determine what type and size of wire or rod will be needed for specific welding applications,
6. complete a progress chart of welds in the flat, horizontal, vertical and overhead positions using proper welding techniques;
8. apply welding machine settings for wire or rod size, and the type of material being welded;
9. operate oxy-acetylene welding and cutting torch,
10. perform basic maintenance on welding equipment,
11. maintain a clean and orderly shop.

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

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**Major Topic Outline:**

1. Introduction to the course, safety rules, lab policies, and student responsibilities.
2. Shielded metal arc welding equipment, setup, and operation.
3. Shielded metal arc welding on steel.
4. Flame cutting equipment, setup, and operation.
5. Gas metal arc welding equipment, setup, and operation.
6. Gas metal arc welding on steel.
7. Flux cored arc welding equipment, setup, and operation.
8. Flux cored arc welding on steel.
9. Plasma cutting equipment, setup, and operation.
10. Oxy-fuel setup and operation.
11. Oxyacetylene welding on steel.

**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>Yes</b> |
| 4. Clean up natural environment      | <b>No</b>  |
| 5. Supports green services           | <b>No</b>  |

Percent of course: 5%

First term to be offered:

**Next available term after approval**

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