

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

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### Section #1 General Course Information

**Department:** Welding

**Submitter**

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**Course Prefix and Number:** WLD - 115A

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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:** Gas Tungsten Arc Welding (GTAW)

**Course Description:**

The first half of WLD -115 which provides the opportunity to acquire knowledge and skills to set up and operate equipment to perform fillet welds in flat and horizontal positions with the Gas Tungsten Arc Welding process. Plasma arc cutting will be covered.

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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?

**✓ 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. set up and operate GTAW (Gas Tungsten Arc Welding) equipment,
3. operate PAC (Plasma Arc Cutting) equipment,
4. complete a progress chart of welds with GTAW (Gas Tungsten Arc Welding) electrodes in the flat, horizontal, vertical and overhead positions using proper welding techniques;
5. complete a progress chart of fillet welds with GTAW (Gas Tungsten Arc Welding) electrodes in the flat and horizontal positions using proper welding techniques,
6. complete a progress chart of groove welds with GTAW (Gas Tungsten Arc Welding) electrodes in the flat position using proper welding techniques,
7. set up and operate sheet metal shear.

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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. Safety, set up and operation of GTAW (Gas Tungsten Arc Welding) equipment.
3. Safety, set up and operation of PAC (Plasma Arc Cutting) using both manual and semi-automatic equipment.
4. Filler metal selection and welding techniques for flat and horizontal welds.
5. Flat and horizontal fillet welds on steel, stainless steel, and aluminum.
6. Flat groove weld on steel, stainless steel, and aluminum.
7. Safety, set up and operation of sheet metal shear.

**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      | <b>No</b> |
| 5. Supports green services           | <b>No</b> |

Percent of course: 0%

First term to be offered:

**Next available term after approval**

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