

## Welding Certificate

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### One-Year Certificate of Completion

Klamath Community College's Welding Technology Program offers a one-year certificate of completion as well as single classes. Emphasis areas include shielded metal arc welding (SMAW), gas tungsten arc welding (GTAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), oxy-acetylene welding and cutting (OAW), and basic fabrication.

In order to complete the one-year program, students must satisfactorily complete welding and welding laboratory classes, general education classes, and cooperative work experience (on-the-job training).

The Welding Technology Certificate includes blueprint reading, welding processes and applications, welding metallurgy, shielded metal arc welding, gas metal arc welding, basic fabrication, and SMAW certification practice.

### Program Learning Outcomes

Upon successful completion of the certificate, students will be able to:

- Use accepted industrial welding safety standards in the shop and in the field.
- Use a variety of welding processes (SMAW, GMAW, FCAW, oxy fuel, plasma cutting, GTAW) in the shop and in the field.
- Interpret welding blueprints in order to fabricate shop projects.
- Determine which welding process, settings, and materials to use depending on the application.
- Develop a welding procedure for specific applications.
- Apply fundamentals of metallurgy to identify metals and to perform heat treatment.

### Program Requirements

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Number of credit hours necessary for completion: **51**

#### Required Courses

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##### Student Success

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- [CGS 100 - College Survival & Success](#) **3.00 credits**

##### Communications

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##### Writing

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- [WRI 117 - Intro to Technical Communication](#) **4.00 credits**  
or
- [WRI 121 - English Composition I](#) **4.00 credits** or
- [WRI 121M - English Composition I](#) **5.00 credits**

## Computation

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Students must select one course in this requirement **4.00 credits**

- [MTH 070 - Elementary Algebra](#) **4.00 credits** or
- [MTH 095 - Intermediate Algebra](#) **4.00 credits** or
- [MTH 098 - Intro to Quantitative Literacy](#) **4.00 credits** or
- [MTH 105 - Math in Society](#) **4.00 credits** or
- [MTH 105M - Math in Society](#) **5.00 credits** or
- [MTH 111 - College Algebra](#) **5.00 credits**

## Social Sciences

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- [PSY 101 - Psychology & Human Relations](#) **3.00 credits**

## Science / Math / Computer Science

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- [ENV 170 - Environmental Science](#) **3.00 credits**
- [ENV 170L - Environmental Science Lab](#) **1.00 credits**

## Technical Core

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- [MET 102 - Basic Engineering Materials](#) **3.00 credits**
  - [WLD 101 - Welding Processes & Applications](#) **3.00 credits**
  - [WLD 102 - Blueprint Reading](#) **3.00 credits**
  - [WLD 114 - Shielded Metal Arc Weld: Mild Steel I](#) **3.00 credits**
  - [WLD 115 - Shielded Metal Arc Weld: Mild Steel II](#) **3.00 credits**
  - [WLD 131 - Gas Metal Arc Welding/Flux Cored Arc Welding](#) **3.00 credits**
  - [WLD 221 - Gas Tungsten Arc Weld: Stainless Steel/Alum](#) **3.00 credits**
  - [WLD 253 - Welding Cert Practice 3/8 or 1 Inch Mild Steel](#) **3.00 credits**
  - [WLD 254 - GMAW/FCAW Certification Practice](#) **2.00 credits**
  - [WLD 255 - GTAW Certification Practice](#) **2.00 credits**
  - [WLD 261 - Basic Fabrication](#) **3.00 credits**
  - [WLD 280 - Coop Wk Exp: Welding](#) **2.00 credits**
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# KLAMATH COMMUNITY COLLEGE

## Welding Certificate

### Fall Term 2021

#### On Campus Courses

CGS100.03	College Survival & Success	M,W,F	1:00 – 1:50
CAS133.02	Intro to Computing Skills	M,W	2:00 – 3:20
CAS133L.02	Intro to Computing Skills Lab	T, R	2:00 – 3:20
MTH105.01	Math in Society (Prerequisites: MTH065 or MTH070 or MTH095 or MTH098 or placement into MTH105 <u>and</u> WRI095 or WRI121 or placement into WRI121)	M. T W, R	2:00 – 2:50
MTH111.01	College Algebra (Prerequisite: MTH095 with a grade of “C” or better or placement into MTH111)	M. T W, R	1:00 – 2:15

**Welding Courses must be taken at the same time to obtain credit for both**  
**Note: If WLD114 is taken separately the pre-requisite of WLD101 applies**

WLD101.01	Welding Processes and Applications	T, R	8:00 – 10:50
WLD114.01	Shielded Metal Arc: Weld Mild Steel (Prerequisite: WLD101)	M, W	8:00 – 10:50

#### Online Courses

CGS100.01DE	College Survival & Success		
CAS133.02DE	Intro to Computing Skills		
CAS133L.02DE	Intro to Computing Skills Lab		
ENV170.01DE	Environmental Science		
ENV170L.01DE	Environmental Science Lab (Recommended: Placement into WRI095)		



# KLAMATH COMMUNITY COLLEGE

## Welding Certificate

Winter Term 2022

### On Campus Courses

**Welding Courses (WLD101 and WLD114) must to be taken at the same time to obtain credit for both**

**Note: If WLD114 is taken separately the prerequisite of WLD101 applies**

WLD101.01	Welding Processes and Applications	T, R	8:00 – 10:50
WLD114.01	Shielded Metal Arc: Weld Mild Steel (Prerequisite: WLD101)	M, W	8:00 – 10:50
WLD115.01	Shielded Metal Arc Weld: Mild Steel II (Prerequisite: WLD114)	M, W	9:00 – 11:50
WLD131.01	Gas Metal Arc Welding/Flux Cored Arc Welding (Prerequisite: WLD101)	M, W	12:30 – 3:20
WLD 221.01	Gas Tungsten Arc Weld: Stainless Steel/Aluminum (Prerequisite: WLD101)	T, R	12:30 – 3:20

### Online Courses

MTH105M.01DE	Math in Society (Prerequisites: MTH065 or MTH070 or MTH095 or MTH098 or placement into MTH105 and WRI095 or WRI121 or placement into WRI 121)
MTH111.01DE	College Algebra (Prerequisite: MTH095 with a grade of “C” or better or placement into MTH111)
WRI121.01DE	English Composition I
WRI121M.01DE	English Composition I



# KLAMATH COMMUNITY COLLEGE

## Welding Certificate

### Spring Term 2022

#### On Campus Courses

**Welding Courses (WLD101 and WLD114) must to be taken at the same time to obtain credit for both**

**Note: If WLD114 is taken separately the pre-requisite of WLD101 applies**

MET102.01H	Basic Engineering Materials (Recommended: WLD101)	F	10:30 – 12:20
WLD101.01	Welding Processes and Applications	T, R	8:00 – 10:50
WLD114.01	Shielded Metal Arc: Weld Mild Steel (Prerequisite: WLD101)	M, W	8:00 – 10:50
WLD115.01	Shielded Metal Arc Weld: Mild Steel II (Prerequisite: WLD114)	M, W	9:00 – 11:50
WLD253.01	Welding Cert Practice 3/8- or 1” Mild Steel (Prerequisite: WLD114)	T, R	11:00 – 1:50
WLD254.01	GMAW/FCAW Certification Practice (Prerequisites: WLD114 <b>and</b> WLD131)	M, W	9:00 – 10:50