

**Certificate of Proficiency (COP)**

# Welding

The welding certificate program helps prepare the student for employment in manufacturing or maintenance.

## Certificate Requirements

- **Communications:**  
5 credits – ENGL 110 Industrial Communications
- **Quantitative Skills:**  
5 credits – MATH 106 Industrial Mathematics
- **Human Relations/ Social Sciences:**  
5 credits – BUS 144 Management of Human Relations:DIV

## Program Requirements

BLPT 160	Blueprint Reading for Welders	5
CS 110	Intro to Microcomputer Applications	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 100	Foundational Skills for the Trades	3
MFG 105	Industrial Safety	3
WELD 125	OFW-A - Oxy/Acetylene Welding with RG45	6
WELD 131	SMAW - Stick Welding with E7018	10
WELD 158	Welding Theory and Fabrication	5
WELD 241	FCAW-G - Dual Shield Wire Feed Welding w/ E71T-1	10

Diversity and Distribution Lists are available in the Lower Columbia College Academic Catalog and at [lowercolumbia.edu/catalog](http://lowercolumbia.edu/catalog).

*Total credits required to earn this certificate: 61.*

## Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment. (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions. (GS Critical Thinking)
- Apply mathematical information to perform tasks in industrial technology. (GS Numeracy/Quant. Literacy)
- Interact effectively with individuals and groups. (GS Interpersonal Relations)
- Display work appropriate behavior including positive attitude, timeliness, and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Safely operate equipment and tools used in welding, cutting, and fabricating.
- Demonstrate competency in entry level welding and cutting processes.
- Perform welding activities following written and verbal instructions.
- Demonstrate competency in interpreting prints, drawings, and symbols for welding and fabricating.
- Communicate work performed using trade specific language.

- Complete tasks accurately, safely, and within a given timeframe.

**Revised May 2019 (Effective Summer 2019)**

**Planner**

Advisors:

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1st Quarter			2nd Quarter			3rd Quarter			4th Quarter		
✓	Courses	Crs	✓	Courses	Crs	✓	Courses	Crs	✓	Courses	Crs
	CS 110 (A)	3		BLPT 160 (W)	5		ENGL 110 (F, Sp)	5		HLTH 105 (A)	1
	MATH 106 (A)	5		BUS 144:DIV (A)	5		WELD 158 (Sp)	5		MFG 105 (A)	3
	MFG 100 (A)	3		WELD 131 (A)	10		WELD 241 (A)	10			
	WELD 125 (A)	6									
<b>Total:</b>		<b>17</b>	<b>Total:</b>		<b>20</b>	<b>Total:</b>		<b>20</b>	<b>Total:</b>		<b>4</b>

Quarter			Quarter			Quarter			Quarter		
✓	Courses	Crs	✓	Courses	Crs	✓	Courses	Crs	✓	Courses	Crs
<b>Total:</b>			<b>Total:</b>			<b>Total:</b>			<b>Total:</b>		

**Notes:**

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.

6-credits of WELD 105 is the equivalent: 2-credits of WELD 125, 2-credits of WELD 131, and 2-credits of WELD 241.

Legend:

- A - Course usually offered all quarters.
- F - Course usually offered Fall Quarter.
- W - Course usually offered Winter Quarter.
- Sp - Course usually offered Spring Quarter.
- S - Course usually offered Summer Quarter.