

Welding and Fabrication

Degree Type

One-year Certificate

WVC is an approved Washington Association of Building Officials (WABO) testing site. Call 509-682-6900 for more information.

Welding is considered a high demand occupation that provides a living wage, with projected short- and long-term growth in Chelan and Douglas counties, according to the Washington State Employment Security Department.

WVC's Industrial Technology program offers a welding and fabrication 65-credit certificate. This training provides students with the skills to perform welding duties in construction, repair, maintenance and fabrication fields. Hands-on instruction is included in core welding techniques—including MIG and TIG and pipe welding— and in metal fabrication with a variety of materials. Safe working habits are emphasized in lecture format and in demonstrations. An industrial safety course includes training and certification in first aid/CPR, flagging, forklift/ industrial truck operation, OSHA 10 and hazardous materials awareness. Students also receive practice in preparation for the Washington Association of Building Officials (WABO) welding certification exam.

Required Courses: One-year certificate

Offered at the Wenatchee campus

Total Credits	55
Course Sequencing	

First Year - Fall Quarter

Course ID	Title	Credits
WELD 128	Basic Welding	3.0
WELD 131	Gas Welding	3.0
ENGR 102	Interpreting Engineering Graphics	2.0
BCT 116	Professional Work Relations	3.0
	MATH 92 Intro to Applied Math or higher level MATH	5.0

First Year - Winter Quarter

Course ID	Title	Credits
WELD 132	Arc Welding	3.0
INDT 135	Metal Fabrication I	5.0
WELD 134	Intermediate GTA Welding (TIG)	3.0
	OCED 102 or higher or ENGL& 101	5.0
WELD 227	Welding Exotic Metals	3.0

Spring Quarter

Course ID	Title	Credits
WELD 220	Welding Certification Prep Course	2.0
INDT 136	Metal Fabrication II	5.0
INDT 137	Metal Fabrication III	3.0
WELD 223	Pipe Welding	3.0
WELD 230	Welding Inspection and Code Interpretation	2.0
OCED 130	Industrial Safety	5.0

Placement score may be required for some levels of MATH, ENGL or OCED.

Program outcomes

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

- Demonstrate standard shop safety procedures.
- Apply welding theory and knowledge of common terms used in the industry to oxy/fuel gas and electric arc welding processes.
- Apply a variety of standard and exotic welding techniques.
- Operate various shop fabrication equipment.
- Use torches and fuel gases to produce durable parts.
- Read, interpret and use shop drawings and specifications in the fabrication and making of durable goods.
- Use effective reading, thinking, mathematical and written communication skills in workplace environments.
- Employ problem solving skills.
- Be prepared to take welder qualification test in accordance with Washington Association of Building Organization (WABO) utilizing the SMAW process.

MATH 92 Intro to Applied Math or higher level MATH

Elective Credits 5.0

Course ID	Title	Credits
MATH 92	Introduction to Applied Math	5.0

OCED 102 or higher or ENGL& 101

Elective Credits 5.0

Course ID	Title	Credits
OCED 102	Writing In The Workplace	5.0
ENGL& 101	Composition: General	5.0