

WELDING TECHNOLOGY ASSOCIATE OF SCIENCE DEGREE

This degree is designed to provide students with an understanding of the terminology, concepts, procedures and skills used in the welding field to equip them with the fundamental skills necessary for entry- and intermediate-level employment as a combination welder. To graduate with a specialization in Welding Technology, students must complete the following required courses for the certificate plus the general breadth requirements for the Associate of Science Degree (minimum total = 60 units).

Code	Title	Units
Required Courses:		
WELD 010	Introduction to Welding	2
WELD 012	Oxy-Fuel Welding	2
WELD 015	Gas Tungsten Arc Welding - Beginning	3
WELD 016	Gas Tungsten Arc Welding - Intermediate	4
WELD 027	Inspection of Welds: Destructive Testing	3
or WELD 028	Inspection of Welds: Non-Destructive Examination	
WELD 045	Shielded Metal Arc Welding - Beginning	3
WELD 046	Shielded Metal Arc Welding - Intermediate	4
WELD 060	Fabrication and Layout - Beginning	4
WELD 066	Preparation for Los Angeles City Welding Welding Certification - Structural (AWS D1.1)	3
WELD 080	Gas Metal Arc Welding - Beginning	3
WELD 081	Gas Metal Arc Welding - Intermediate	4
WELD 090	Flux Cored Arc Welding - Gas Shielded	4
WELD 091	Flux Cored Arc Welding - Self Shielded	4
TECALC 087	Technical Calculations	4
Total Units		47

To earn an SBVC Associate Degree students must complete one of the following general education patterns:

SBVC GE requirements (<https://www.valleycollege.edu/student-services/counseling/graduation-requirements/>)

CSU GE requirements (<https://www.valleycollege.edu/student-services/counseling/csuge/>)

IGETC requirements (<https://www.valleycollege.edu/student-services/counseling/igetc/>)

Program Learning Outcomes

At the completion of this program, students will be able to:

- Show an understanding of the safety precautions for working in a welding lab and demonstrate an awareness of the importance of safety in welding.
- Use tools related to the welding industries.
- Read and interpret prints and shop drawings to produce quality welds.
- Read and understand Welding Procedure Specifications to produce quality welds.
- Fabricate and layout parts that meet quality standards.

- Determine the causes of a weld failure using the knowledge and skills developed in destructive testing and correctly develop a new welding procedure that meets AWS code requirements for structural steel.
- Perform visual inspection on weld specimens along with dye penetrant, magnetic particle and ultrasonic examination. Students must also be able to write a clear and concise reports describing what type of weld discontinuity and reference it to a specific welding code.
- Pass a Welder Performance Qualification Test that meets the standard of acceptability to a National Standard.