

# Pipe Fabrication Welding – Certificate of Specialization

+If you have completed coursework at another college and/or are starting in a semester other than a Fall term, please follow up with the Counseling Department to determine if this sequence is appropriate for your academic and career goals.

**Program Description:** The Welding Technology Certificate of Specialization in Pipe Fabrication/Welding provides training to gain technical and applied skills in the joining of carbon steel pipe. Coursework includes pipe layout fabrication and welding of pipe in the 1G, 2G, 5G, and 6G positions using shielded metal arc welding (SMAW), gas tungsten arc welding (GTAW) and gas metal arc welding (GMAW). Welder qualification performance exams in accordance with the American Petroleum Institute (API), American Society of Mechanical Engineers (ASME) and the American Welding Society are offered.

**Program SLO:** Students will be able to demonstrate the ability to fabricate and weld carbon steel pipe joints in multiple positions that meet industry code acceptance criteria.

**Important Information:** For students interested in earning an Associate's degree and/or transfer, please follow up with the Counseling Office for additional information @ <https://www.canyons.edu/counseling> or (661)362-3288/(661)362-3811.

Major courses are sequenced and **BOLDED** based on recommendations by the [Welding Technology Department](#)

**First Semester (3-7 units minimum) FA = Fall; WI = Winter; SP = Spring; SU = Summer**

Course	Title	Units	Major Courses
<b>WELD 113A</b>	<b>Introduction to Pipe Welding (FA)</b>	<b>4</b>	<b>Major</b>
<b>WELD 113B</b>	<b>Pipe Layout and Fabrication (FA)</b>	<b>3</b>	<b>Major</b>
WELD 112A	Introduction to Gas Tungsten Arc Welding (FA)	2.5	Highly Recommended Elective
<b>Term Total:</b>		<b>7 -9.5</b>	

NOTE: WELD 101C is a pre-requisite to WELD 113A and Weld 113B is a co-requisites

**Second Semester (8-12 units minimum)**

Course	Title	Units	Major Courses
<b>WELD 113C</b>	<b>Intermediate Pipe Welding (SP)</b>	<b>4</b>	<b>Major</b>
WELD 112B	Intermediate Gas Tungsten Arc Welding (SP)	2.5	Highly Recommended Elective
<b>Term Total:</b>		<b>4 -6.5</b>	

NOTE: WELD 113A is a pre-requisite and the recommended preparation is WELD 112B

**Third Semester (13-15 units minimum)**

Course	Title	Units	Major Courses
<b>WELD 113D</b>	<b>Advanced Pipe Welding (FA)</b>	<b>4</b>	<b>Major</b>
<b>Term Total:</b>		<b>4</b>	

NOTE: WELD 113C is a pre-requisite

**Total Units: 15+**

## Counseling Resources

Welding Technology Department: <https://www.canyons.edu/academics/welding/>

Counseling Department: <https://www.canyons.edu/student-services/counseling/>

Internship Program (CWE): <https://www.canyons.edu/student-services/internships/index.php>

Campus Alliances: <https://www.canyons.edu/administration/ie2/equity/alliances/index.php>

Petition for Certificate – Petitions are due in the fall/spring/summer term you will complete the requirements, and may be submitted before your last term or up until the final day of the term. Petitions must be reviewed with a counselor and may be downloaded here:

[https://www.canyons.edu/resources/documents/student-services/admissions/Petition\\_for\\_Certificate\\_of\\_Specialization.pdf](https://www.canyons.edu/resources/documents/student-services/admissions/Petition_for_Certificate_of_Specialization.pdf)

## **Career Resources**

Welding Career Tree: <https://www.canyons.edu/academics/welding/careertree/index.php>

Careers in Welding: <https://www.careersinwelding.com/>

American Welding Society (AWS): <https://www.aws.org/>

California Career Zone: <https://www.cacareerzone.org/>

O\*Net Online: <https://www.onetonline.org/>

Bureau of Labor and Statistics: [www.bls.gov](http://www.bls.gov)

## **Industry Certifications**

LA Department of Building and Safety (LADBS): <https://www.ladbs.org/default>

FANUC Certified Education Robot Training (CERT): <https://www.fanucamerica.com/>

AWS Certified Welder Program (CW): <https://www.aws.org/certification/page/certified-welder-program>

FMA Metal Fabrication Certificate: <https://www.fmamfg.org/training/fundamentals-of-metal-fabrication-certificate-exam>

AWS Certified Robotic Arc Welding Program: <https://www.aws.org/certification/detail/certified-robotic-arc-welding>