WELDING FABRICATION – ASSOCIATE IN SCIENCE DEGREE, CERTIFICATE OF ACHIEVEMENT

Top Code:

0956.50

The Welding Fabrication Program prepares students to work in welding manufacturing, welding fabrication, and related industries. The curriculum includes courses in welding theory, principles, processes and evaluation of welds, fabrication techniques, blueprint reading, machining skills, technical mathematics, and allied equipment operations. Students will begin preparation for an LA City D1.1 Welding License.

A Certificate of Achievement is awarded upon completion of all required courses with a grade of C or better.

Program Outcomes

- Examine welding theory and mechanics by using industry nomenclature: currents, polarity, joint design, discontinuities, troubleshooting and welding symbols.
- Fabricate and weld to welding procedure specifications a 3G, 3F, 4G or 4F test coupon using gas metal or gas tungsten arc welding.
- Demonstrate safe and proper operation of associated metalworking equipment while fabricating an assigned project.
- Utilize welding, cutting, prepping and repairing equipment safely while wearing the required Personal Protective Equipment (PPE) to the OSHA standard.
- Negotiate the AWS D 1.1 Structural Steel code book, including general requirements, design of welded connections, qualified, prequalified, fabrication, inspection, stud welding and repair of existing structures to the satisfaction of the City of Los Angeles Department of Building Safety, written exam.

Requirements for the Certificate of Achievement

Code	Title	Units
WELD 200A	INTRODUCTION TO STRUCTURAL WELDING	6
WELD 200C	INTRODUCTION TO FABRICATION GMAW & GTAW	6
TECH 107A	TECHNICAL CALCULATIONS	3
MACH 101	BEGINNING METALWORKING SKILLS	3
MACH 110	BLUEPRINT READING	1
or DT 150	READING ENGINEERING DRAWINGS	
Total Units		**19**

General Education Requirements for the Associate in Science Degree

- General Information (https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/)
- PCC Local Gen Ed (https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#pcclocaltext)
- CSU Breadth (https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#csubreadthtext)
- IGETC (https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#igetctext)