

Honolulu Community College

University of Hawaii
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WELDING TECHNOLOGY

PROGRAM DESCRIPTION: Training is given in both theory and practical skills in the various phases of welding and cutting. The curriculum is designed to meet the minimum skill standards established by the American Welding Society (AWS) for entry-level welders.

- **DEGREES OFFERED:** Certificate of Achievement, Associate in Applied Science
- **RECOMMENDED PREPARATION:** Classes in math, mechanical drawing, physics, chemistry, metals technology, machine shop and blueprint reading.
- **COST:** Books and Tools - \$450 for the program
- **TECHNICAL STANDARDS:** Can be found at <http://tech.honolulu.hawaii.edu/weld>

THE OCCUPATION

DESCRIPTION: Welders use heat from a gas torch or electric arc to permanently join pieces of metal in order to make parts used in a variety of products and construction projects. They weld mechanical parts, make metal parts, and cut and join beams and steel reinforcing rods.

SKILLS AND APTITUDES NEEDED: Average ability to work with hands and eye-hand coordination and good physical condition and eyesight. Ability to visualize two- and three-dimensional objects, see slight differences in shapes, and concentrate on detailed work for long periods of time.

WORK SETTING: Indoors and outdoors. May work at various sites including ships and submarines.

PHYSICAL DEMANDS AND HAZARDS: Often bend, stoop, and work in awkward positions. Must wear protective clothes, shoes, hoods, and goggles for protection from sparks, intense heat, toxic gases, and fumes. May be required to work in high places and perform heavy lifting.

EMPLOYERS: General construction contractors, welding contractors, manufacturing firms, private shipyards, water transportation companies, government agencies, and the military.

CAREER LADDER: ENTRY LEVEL: Trade Helper, Apprentice (for Ironworkers). ADVANCEMENT: Supervisor, Superintendent, Inspector, Small Business Operator.

EMPLOYMENT OPPORTUNITIES: Balance to slight surplus. Outlook depends on economic conditions, the level of activity at shipyards, technological advances, government regulations, and replacement needs. Locally and nationally, faster than average employment growth is expected through the year 2014. Welders in certain industries may experience periods of unemployment, but for some specialties job prospects should be excellent.

WAGES: Varies widely with skill level, welding specialty, and employment site. Entry rates are around \$10-\$16 an hour or more and with experience around \$16-\$29 an hour. Federal journey level earn around \$23-\$24 an hour. Federal apprentices earn around \$15 an hour.