

# WELDING

## **JOB DESCRIPTION** ([http://study.com/welding\\_career.html](http://study.com/welding_career.html))

A welder takes various metal components and uses intense heat to fuse them together to form a final product. Thus, they must have the strength and skills to manage welding equipment. Welders also use hand-welding or flame-cutting equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Industries to be employed in include construction, steel, aerospace and motor vehicles, each of which may depend on level of expertise.

## **JOB DUTIES** ([http://study.com/welding\\_career.html](http://study.com/welding_career.html))

Welders fabricate and assemble metal structures and equipment through the use of welders, cutters, shapers and measuring tools. Welders produce metal products according to customer or employer specifications. They use multiple welding machines to repair and maintain metal equipment and structures of various sizes. Welders read and interpret diagrams, sketches and blueprints to determine operations, required materials and timeframes for projects. Welders set up, operate and maintain welding equipment. They understand and implement personal and company safety measures by wearing specialized goggles, helmets and gloves. Communication skills are essential to work with team members and converse with customers and clients.

## **SAMPLE JOB TITLES** (<http://www.onetonline.org/link/summary/51-4121.06>)

Aluminum Welder, Fabrication Welder, Fabricator, Fitter/Welder, Maintenance Welder, Mig Welder, Sub Arc Operator, Welder, Welder-Fitter, Welder/Fabricator

## **HELPFUL HIGH SCHOOL COURSES**

- Emphasis in Math and Science to include: Algebra, Geometry, higher level Math, Physics
- Introduction to Welding Technology
- Basic Electric Arc Welding Techniques and Practices
- Electric Arc Welding Processes, Application and Fabrication
- Advanced Electric Arc Welding and Positioning (\*Upon completion of the two-year program, students may test the American Welding Society S.E.N.S.E. test)
- Additional Suggestions: Art or 3D Design courses, Business Fundamentals, Drafting or Engineering Sciences

**Median 2015 Salary: \$38,150**

## **Sample GUHSD High School Schedule**

| 9th Grade        | 10th Grade      | 11th Grade        | 12th Grade      |
|------------------|-----------------|-------------------|-----------------|
| ENG 1-2          | ENG 3-4         | ENG 5-6           | ENG 7-8         |
| ALG 1-2          | GEOM 1-2        | ALG 2 (1-2)       | COLLEGE ALGEBRA |
| INT SCIENCE 1-2  | BIOLOGY 1-2     | CHEMISTRY 1-2     | PHYSICS 1-2     |
| PE               | WHG 1-2         | US HIST 1-2       | GOV/ECON        |
| INTRO TO WELDING | BASIC ARC WELD  | ELECT ARC WELDING | ADV ARC WELDING |
| (BLOCK COURSE)*  | (BLOCK COURSE)* | (BLOCK COURSE)*   | (BLOCK COURSE)* |

\*If the Welding block is taken during 0/1 hour, students would be able to also take another suggested elective (Art or 3D Design courses, Business Fundamentals, Drafting or Engineering Sciences )