

WELDING TECHNOLOGY

Welding Technology prepares students for employment in the fields of welding and fabrication. Students will gain a foundation of metal transfer and the use of different shielding gases and will acquire skills in metallurgy, blueprint design and creation, multi-position metal transfer, well-joint design and application, and basic material science.



WHAT YOU WILL LEARN

- Shield Metal Arc Welding • Gas Welding • Gas Tungsten Arc Welding • Oxyfuel Welding •
- Cutting Apparatuses • Joint Preparation Process • Groove Welds • Lap Welds • Fillet Welds •
- Seam Welds • Orthographic Drawing •

WHERE DO YOU SEE YOURSELF?

- Metal Fabrication • Oil Field Welding • Pipeline Welding • Agriculture Fabrication/Metal •
- Agriculture Implementation & Repair • Stainless Steel Fabrication •
- Welding Maintenance in Food Processing Facilities •

PAY RANGE

Average salary for entry-level is between \$18 - 20 per hour.

Welders/Fabricators with 3-5 years of experience can make between \$24 - 30 per hour.

PROGRAM CONTACT:

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Learn More at
COS.EDU/Welding

DEGREE & CERTIFICATE OFFERED

Associate of Science in Welding (Not for Transfer) - 60 units

Certificate of Achievement in Welding Technology - 27 units

CLASSES YOU MIGHT TAKE

WELD 107 Forging and Wrought Iron

This course offers the student both theory and concepts, in addition to the application of artistic metal working. Both the practical and the abstract notions of working hot metal and forging as they are applied to iron sculptures will be covered.

WELD 161 Oxyacetylene Welding

Introduction to the concepts and interpretations of principles of oxyacetylene welding, braze welding, brazing soldering, flame spraying and flame cutting of common ferrous and non-ferrous sheet, plate and pipe. Properties of ferrous materials and principles of destructive testing of welded materials complete the program.

WELD 162 Shielded Metal Arc Welding

Introduction to modern solid shield technology and ferrous filler metals. Students will learn the theory of ferrous metallurgy and its application to shielded metal arc welding. The course moves into the application of the principles of position and out of position welding.

WELD 172 Gas Tungsten Arc Welding

Introduction to the theory and concepts as applied to gas tungsten arc welding. Introduction to modern shielding gas technology, non-ferrous filler metals. Students will learn the theory of ferrous metallurgy and its application to destructive testing of welded materials.

WELD 181 Blueprint Reading/Metallurgy

This course combines the fundamental concepts and application of blueprint reading relating to welded assemblies. The theory of ferrous metal identification and the concept of preparation of metal samples for identification prepares students entering the fabrication, construction or welding engineering fields.

WELD 273 Stainless Steel Weld/Repair

This course is designed to give welding students training in the practice, theory, and skill of welding stainless steel. Both repair and fabrication, as well as concepts to sanitary tube welding and fabrication, will be covered.

WELD 274 Aluminum Welding

The course is designed to give advanced welding students training in the practice, theory and skill in the welding of aluminum, both repair and fabrication, as well as application to all structural shapes and levels of alloys.

Weld 276 Metal Fabrication

This course is designed for the students to develop the concepts and apply the theories of the skills of a welder fabricator. This is a project based course that will introduce students to the abstraction of design, layout, pricing and construction of metal projects.

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