



# Welding

accredited by the American Welding Society (AWS)



WELDING develops skills and knowledge in the fusing of different types of metals. Students will work from blueprints to layout, develop, fabricate, and form metals utilizing the Oxyacetylene Flame Cutting, Gas Welding, Electric Arc Welding, Aircomatic (MIG), Heliarc (TIG), and Plasma Arc Welding Processes.

## Work Environment

The welder may work indoors or outdoors depending on the type of job being performed. Extreme heat is used in the welding process and protective goggles, masks, gloves, shoes and coveralls must be worn. Very strict safety rules must be followed.

## Career Opportunities

Arc Welder  
Business Owner  
Certified Welder  
Flame Cutter  
Gas Welder  
Heliarc Welder  
Welding Engineer  
Welding Inspector  
Welder (Combo) Mechanic  
Welding Supervisor

## Advanced Standing Available\*

Lincoln Technical Institute  
Pennsylvania College of Technology  
SUNY Delhi

\*Advanced Standing may be available to those who successfully complete this Tech course. See Articulation Agreements on page 41.

## Employment Outlook

The New York area outlook is very good for both men and women, with a few hundred new welders needed every year. Technology and new metal fabrication techniques will keep this demand on a steady increase.

**Starting Salaries:** from \$12–\$18/hour (according to ability) for a 40-hour week. Specialists earn \$30–\$62/hour

## Student Supplies (approx. \$200)

1. High top boots, long pants, long sleeved shirts, welding hat or baseball cap, welding gloves
2. Welding Equipment: welding hood, hammers (chipping, ball peen), wire brush, striker
3. Tools: Screwdrivers, tool box, tape ruler, adjustable square, pliers, wrench, scribe, vise grip

## Academic credits integrated:

See chart, page 26

## CTE Endorsement

In order to be granted the Technical Diploma endorsement, students must successfully meet the academic and attendance criteria for a two-year Wilson Tech Certificate of Completion, including Career and Financial Management (CFM), and pass the following national certification exam: National Occupational Competency Testing Exam (NOCTI) - Welding Exam.

## Course Outline

- Shop and Field Safety Procedures
- Basic Electricity/Fundamentals of Blueprint Reading
- Thermodynamics/Layout and Development
- Properties, Identification, and Use of Metals
- Welding Processes and Techniques including Production and Maintenance Welding
- Inspection and Testing of Weldments
- Basic Metallurgy
- Special Welding Techniques
- Preparation for Welder's Certification Exam in 3G, 4G and 6G Pipe

## Consider these classes at Tech

- Aircraft Technology
- Architectural Design/CAD
- Auto Body Repair
- Auto Maintenance\*
- Auto Technology
- Building Trades\*
- Carpentry
- Construction Electricity
- Design and Production Technology\*
- Heating/Ventilation/AC (HVAC)
- Marine & Motor Sports Technology

All placements are based upon individual needs and approval from the district and parent/guardian.

\*Smaller class size.