

Welding

Create in metal by electricity and fire fusion



Students gain a global understanding of welding, the art and science of joining metal together. Common industry standard processes of Shielded Metal Arc Welding (SMAW-Stick), Gas Tungsten Arc Welding (GTAW-TIG), and Gas Metal Arc Welding (GMAW-MIG), as well as plasma arc and oxy-acetylene cutting are covered. Students will be exposed to the programming (CNC) aspect of machining.

Units of Study

- Identifying Plastic Parts
- Safety
- OFC (Oxy Fuel Cutting)
- Weld symbols
- Weld prints
- Power saws
- SMAW (Shielded Metal Arc Welding)
- GMAW (Gas Metal Arc Welding)
- GTAW (Gas Tungsten Arc Welding)
- FCAW (Flux Core Arc Welding)
- Forging
- Metallurgy
- PAC (Plasma Arc Cutting)

Available Academic Credits

- English
- Math

Licensing / Industry- Based Certifications

OSHA 10 Construction

Work-Based Learning

CTE programs bring students into the workplace for real life experiences. Businesses that support our Welding Program:

- Cannon Industries, Inc.
- Es Systems
- Graham Manufacturing
- Mahany ARC & Flame Center

Articulation Agreements

- Alfred State
- SUNY Canton



Career Paths

All CTE programs correlate to many career paths.

↓ **Start Here**

- Welder

Go Here ↓

with more education & experience

- Inspector
- Robotic Welding Operator/ Programmer
- Metal Fabricator

Explore more:

<https://www.careerzone.ny.gov/>

<https://www.onetonline.org/find/>

