

WELDING TECHNOLOGIES
CAREER PATHWAY

Plating Machine Setters, Operators & Tenders • Metal Workers & Plastic Workers • Welding, Soldering, Blazing Machine Setters, Operators & Tenders • Heat Treating Equipment Setters, Operators & Tenders • Welders, Cutters, Solderers & Blazers • Tool Grinders, Filers & Sharpeners • Structural Metal Fabricators & Fitters • Sheet Metal Workers

	CAREER TECHNICAL COURSE NAME & SUBJECT CODE	RECOMMENDED ACADEMICS
7		
8		
9		
10		
11	Welding Technologies Shielded Metal Arc Welding Gas Metal Arc Welding	
12	Gas Tungsten Arc Welding Manufacturing Capstone	

INDUSTRY CREDENTIAL OPPORTUNITIES

- American Welding Society (AWS) Qualification GMAW Plate - **9 Points**
- American Welding Society (AWS) Qualification SMAW Plate - **9 Points**
- American Welding Society (AWS) Qualification GTAW Plate - **9 Points**
- OSHA - 10-Hour Training* - **1 Point**
  (College Credit - CTS001 - 1 Credit Hour)
- CPR First Aid - **1 Point**
- Ohio Driver's License - **1 Point**
- Lean Six Sigma Yellow Belt - **3 Points**
- Lean Six Sigma Green Belt - **6 Points**
- Leadership Excellence - Student - **3 Points**

POSTSECONDARY OPPORTUNITIES

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS
Welding	600

POTENTIAL PLACEMENT & INCOME – $

**May 2025 State Occupational Employment and Wage Estimates for Ohio*

- Metal Workers & Plastic Workers | **$46,940**
- Plating Machine Setters, Operators & Tenders *(Metal & Plastic)* | **$48,460**
- Welding, Soldering, Brazing Machine Setters, Operators & Tenders | **$51,130**
- Structural Metal Fabricators & Fitters | **$51,700**
- Welders, Cutters, Solderers & Blazers | **$53,370**
- Heat Treating Equipment Setters, Operators & Tenders *(Metal & Plastic)* | **$54,860**
- Tool Grinders, Filers & Sharpeners | **$60,000**
- Sheet Metal Workers | **$68,810**

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BUCKEYE HILLS CAREER CENTER

WELDING TECHNOLOGIES CAREER PATHWAY

SUBJECT CODE **176009**

11th GRADE

WELDING TECHNOLOGIES

Students will use fundamental welding principles involving shielded metal arc, oxyacetylene, gas tungsten and gas metal arc welding in the flat, horizontal and vertical positions. An emphasis is given to electrode selection, equipment setup, operating procedures, welding inspection and testing. Students will learn joint designs and layout and will be introduced to welding codes and standards. Additional topics include employability skills, and an emphasis will be given to personal safety.

SUBJECT CODE **176001**

11th GRADE

SHIELDED METAL ARC WELDING

Students will be able to use the Shielded Metal Arc Welding process (SMAW) to safely join various types of metal. They will perform multiple types of welds and joints in all positions, up to and including overhead. They will select the appropriate type of electrode and adjust welding equipment based on the physical characteristics and properties of the metal. Students will apply quality control factors to evaluate the quality of welds.

SUBJECT CODE **176000**

11th GRADE

GAS METAL ARC WELDING

Students will use the Gas Metal Arc Welding process (GMAW) to safely join various types of metal. They will cut metals using oxy-fuel processes and perform multiple types of welds and joints in all positions, up to and including overhead. They will select the appropriate type of electrode wire and shielding gas, and they will adjust welding equipment based on the physical characteristics and metal properties. Students will apply quality control factors to evaluate weld quality.

SUBJECT CODE **176003**

12th GRADE

GAS TUNGSTEN ARC WELDING

Students will use the Gas Tungsten Arc Welding process (GTAW) to safely join various types of metal. They will perform multiple types of welds and joints in all positions, up to and including overhead. They will select the appropriate type of electrode, filler metal and shielding gas. They will be able to adjust welding equipment based on the physical characteristics and properties of the metal. Students will apply quality control factors to evaluate weld quality.

SUBJECT CODE **176008**

12th GRADE

MANUFACTURING CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in their information technology program in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.

Buckeye Hills Career Center | 351 Buckeye Hills Road | Rio Grande, OH 45674 | 740.245.5334 | buckeyehills.net

Career-technical education does not discriminate on the basis of race, color, national origin, sex, disability, or age for participation in any program or activity. Lack of English language proficiency will not be a barrier to admission and participation in career-technical education programs or courses.