

## Welding

Advanced Manufacturing

## **JOB OUTLOOK**

Job demand for welders is strong in both construction and manufacturing. Welders are needed in manufacturing because of the importance and versatility of welding. The nation's aging infrastructure will require the expertise of welders, cutters, solders, and blazers to help rebuild bridges, highways, and buildings. There are many job openings to replace retiring workers. The basic skills of welding are similar across multiple industries, so welders can easily shift from one industry to another, depending on where they are needed most.



### **OCCUPATION PROFILE**

Welding careers are an integral part of Advanced Manufacturing. Welders, cutters, solderers, and blazers use hand-held or remotely controlled equipment to join, repair, or cut metal parts and products. They may work outdoors, often inclement weather, or indoors, sometimes in a confined area. They may work on a scaffold, high off the ground, and they occasionally must lift heavy objects and work in awkward positions. Some welders go on to earn their bachelor's degree as material engineers.

WELDERS, CUTTERS, SOLDERERS, AND BRAZERS

Median Salary: \$39,220

WELDING SETTERS, OPERATORS, AND TENDERS

Median Salary: \$39,490

MATERIALS ENGINEERS

Median Salary: \$113,380



# Memphis-Shelby County Schools



## **ROAD MAP TO SUCCESS**

#### PROGRAM OF STUDY PROFILE

The Welding program of study prepares students to be entry-level welders. Courses emphasize safe practices, basic arc welding, thermal cuttings skills, and gas metal arc welding. Welding, cutting, soldering and brazing skills improve as students take the series of courses which prepare students for an American Welding Society certification.

## **CAREER PATHWAY**

## SECONDARY EDUCATION

- \* Principles of Manufacturing
- \* Welding I
- \* Welding II
- \* Manufacturing **Practicum**

## **CERTIFICATIONS**

- \* Welding
- \* Dual Enrollment: Moore Tech/TACT

### **ASSOCIATES**

- \* A.A.S. Welding Technology
- \* A.A.T. Welding

## **BACHELORS**

- \* B.S. MECHANICAL ENGINEERING
- \* B.S. MANUFACTURING ENGINEERING **TECHNOLOGY**
- \* B.S. MECHANICAL ENGINEERING

MSCS PARTICIPATING SCHOOLS: Kingsbury CTC & Southwest CTC

**DUAL ENROLLMENT:** Welding Technology – Kingsbury CTC + Tennessee College of Applied Technology (TCAT)

LOCAL EMPLOYERS: Associated Wholesale Grocers, Atlantic Track, Aerotek, Nucor Steel, Smith & Nephew, Morgan Steel, Carvana, Greater Memphis Chamber, Johnson Equipment Company, NexAir

by Memphis-Shelby County Schools with materials from the TN Department of Education and MSCS--Division of College, Career, and Technical