



Welding Technology

Assunpink Center

Over the course of two years, the Welding Technology program will help to develop student skills in the following areas: shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, plasma arc welding, and oxyfuel gas cutting. Students will be able to prepare parts from simple sketches or blueprints, prepare welded joints from welding symbol information, and make minor external repairs to equipment and accessories.

Our Welding Technology program follows the AWS (American Welding Society) SENSE program. Which will provide students with the opportunity to achieve various AWS SENSE certifications. Students can use their acquired skills in many career paths such as Fabrication, Pipe Welding, Industrial Maintenance, Weld Inspector, or post-secondary education. The program involves both hands-on and theory lessons, building the students' knowledge based on math, measurements, welding processes, and design.

All students will have the opportunity to join their respective Career Technical Student Organization, SkillsUSA, and experience local, state, and national competitions. Throughout this program, students will earn stackable credentials on their AWS Certified Welder wallet card. Prior to program completion, in year two (2), students will take the American Welding Society Certified Welder Test and submit an application to AWS in order to qualify and become an AWS Certified Welder. Students who successfully complete this program may be afforded prior learning assessment (PLA) credits with Mercer County Community College

Welding Technology I

Grade Level: 11 Credits: 20

This course will provide students with an introduction to the welding field. Students will spend time in class studying terminology, safety, set-up, and shut-down of all welding equipment and related tools of the trade. Time will also be spent in the welding shop so students will get hands-on experiences with oxy-acetylene cutting, welding, and brazing along with arc welding. First-year Welding students obtain their OSHA 10 certification and stackable wallet card certificates such as Shielded Metal Arc Welding (SMAW) and Gas Metal Arc Welding (GMAW).

Welding Technology II

Grade Level: 12 Credits: 20

In year two (2) the students will experience a deeper dive into arc welding theory II, an introduction to metal fabrication and mechanical fastening, and be engaged in CNC Thermal cutting from design phase to machine operations. Students will have the opportunity to participate in work-based learning opportunities and compete in their CTSO SkillsUSA. Welding Technology follows the AWS (American Welding Society) SENSE program. This will provide students with the opportunity to achieve and become a Certified Welder which has been considered by the New Jersey Department of Labor as an industry-valued credential (IVC). Students will also take the NOCTI Job Ready assessment which can be used at the post-secondary levels for the National College Credit Recommendation Service of 3 semester hours in Welding Technology or Mechanical Technology with an appropriate minimum score reached on the exam.



Assunpink Center
1085 Old Trenton Road
Trenton, NJ 08690
609.586.57144

Industry Valued Credentials & Certifications

OSHA 10 certification
AWS Certified Welder
NOCTI Job Ready - Welding (4372)

Articulation Agreements

Mercer County Community College



SCAN FOR MORE

Updated on 09/12/2025

www.mcts.edu • Magic Happens Here