



Maintenance & Industrial Manufacturing Academy

Welding

060-BI-WELDING @ SCTHS



The Welding program of study focuses on the development and use of automatic and computer-controlled machines, tools, and robots that perform work on metal or plastic. CTE learners will learn how to modify parts to make or repair machine tools or maintain individual machines, and how to use hand-welding or flame-cutting equipment.

Secondary Courses for High School Credit

Level 1

- Dual Credit Welding Courses with Lee College

Level 2

- Dual Credit Welding Courses with Lee College

Level 3

- Dual Credit Welding Courses with Lee College

Level 4

- Dual Credit Welding Courses with Lee College

Postsecondary Opportunities

Associates Degrees

- Certified Welder or Welder Inspector
- Machine Shop Technology/Assistant
- Operations Management and Supervision
- Occupational Safety and Health Technology/Technician

Bachelor's Degrees

- Welding Engineering Technology/Technician
- Biomedical Technology/Technician
- Operations Management and Supervision
- Environmental Health

Master's, Doctoral, and Professional Degrees

- Welding Engineering Technology/Technician
- Occupational Health and Industrial Hygiene
- Operations Management and Supervision
- Environmental Health

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate and compete in SkillsUSA • Job shadow a machinist	• Work in a local business or industry apprenticeship • Join the American Welding Society

Industry-Based Certifications

- AWS D1.1 Structural Steel
- AWS SENSE Level 1: Entry Welder
- NCCER Core
- NCCER Welding Level I



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Welders, Cutters, Solderers, and Brazers	\$41,350	6,171	9%
Welding Soldering and Brazing Machine Setters, Operators and Tenders	\$40,040	280	9%

Successful completion of the Welding program of study will fulfill requirements of the Business and Industry endorsement.
Revised – October 2022

COURSE INFORMATION

DUAL CREDIT WITH LEE COLLEGE

Manufacturing and Industrial Maintenance students have the opportunity to earn the Certificate of Completion in Welding Helper, Certificate of Completion in Welding Technology, Certificate of Completion in Welding Inspection and Associates of Applied Science in Industrial Welding Technology.

WLDG 1323 Welding Safety, Tools, and Equipment

WLDG 1428 Introduction to Shielded Metal Arc Welding

WLDG 1313 Introduction to Blueprint Reading for Welders

WLDG 2443 Advanced Shielded Metal Arc Welding

WLDG 1337 Introduction to Welding Metallurgy

WLDG 1435 Introduction to Pipe Welding

WLDG 1200 Introduction to Welding

WLDG 1430 Introduction to Gas Metal Arc

WLDG 1312 Intro to Flux Core (FCAW)

WLDG 1434 Introduction to Gas Tungsten Arc Welding

WLDG 2453 Advance Pipe Welding

WLDG 2451 Advanced Gas Tungsten Arc Welding

All courses are subject to change by Lee College. Please see cohort layout document for course order and high school alignment.