

Manufacturing Career Cluster

The Manufacturing Career Cluster focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Industrial Welding Statewide Program of Study



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

Suggested LISD Courses:

Principles of Agriculture, Welding I

Level 3

- TJC Welding I #

Level 4

- TJC Welding II #

***CTE Completer: 3 or more courses for 4 or more credits**

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
<ul style="list-style-type: none"> • Participate and compete in SkillsUSA • Job shadow a machinist 	<ul style="list-style-type: none"> • Work in a local business or industry apprenticeship • Join the American Welding Society

Industry-Based Certifications

- API 1104 Welding Pipelines and Related Facilities
- AWS Certified Welder
- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- AWS SENSE Level 1: Entry Welder
- Industrial Technology Maintenance (ITM) - Maintenance Welding
- NCCER Construction Technology Certification Level I
- NCCER Core
- NCCER Welding Level I
- Welding - Job Ready

- OSHA 30 Hour General*
- *IBC sunseting 8/31/24



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 – August 2022

Welding Course Information

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Introduction to Welding	13032250 (1 credit)	None	None
Welding I	13032300 (2 credits)	None	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Welding II/Lab	13032400 (2 credits) 13032410 (3 credits)	Welding I	None

Lindale ISD is in partnership with Tyler Junior College for the partnership for Welding courses.

*Individualized/accelerated course planning may be available for students participating in these programs. See guidance counselor and CTE Director for more information.

FOR ADDITIONAL INFORMATION ON THE MANUFACTURING CAREER CLUSTER,
PLEASE CONTACT: CTE@tea.texas.gov or LISD CTE Director, Teri Hodges, HodgesTC@lisdeagles.net
<https://tea.texas.gov/cte>

Lindale ISD does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Jamie Holder, Title IX Coordinator, 903-881-4000.

Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).