



# WELDING TECHNOLOGY

WHITEWATER CAREER CENTER

## PROGRAM OVERVIEW

Welding Technology includes classroom and lab experiences that develop skills in oxy-fuel cutting and shielded metal arc welding. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used to enforce safety at all times. Instructional activities emphasize properties of metals, safety issues, print reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success. Welding II students focus on completing the AWS (American Welding Society) Sense Level 1 industry certification. Successful students have opportunities to complete internships at local companies during the spring semester.

## YOU WILL LEARN

- 4 major welding processes along with oxy-fuel & plasma cutting
- How to weld in flat, vertical, horizontal, & overhead positions
- How to read welding symbols & understand blueprints

## GET YOURSELF READY

To be successful, do well in all academic classes, be on track for graduation, and have a good work ethic. The following courses will help prepare you for the Welding Technology program:

- Preparing for College and Careers
- Introduction to Manufacturing
- Other Technology Courses



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# Early College Career Program WELDING TECHNOLOGY

## CERTIFICATIONS & DUAL CREDITS

AWS (American Welding Society) SENSE (Level 1):

Entry Level Welder in SMAW

Entry Level Welder in GMAW

Entry Level Welder in FCAW

Entry Level Welder in GTAW

Ivy Tech Dual College Credits

INDT 114	Introduction to Welding	3 credits
WELD 100	Welding Processes	3 credits
WELD 108	Shielded Metal Arc Welding I	3 credits
WELD 206	Shielded Metal Arc Welding II	3 credits
WELD 109	Oxy-Fuel Gas Welding & Cutting	3 credits
WELD 207	Gas Metal Arc Welding	3 credits
WELD 208	Gas Tungsten Arc Welding	3 credits
WELD 272	Adv Gas Metal Arc Welding II	3 credits
WELD 273	Adv Gas Tungsten Arc Welding II	3 credits

\* Dual credits offered are subject to change before the 2022-2023 year due to change in state requirements.

Industry certifications are earned in year two.  
Dual credits are earned during year one and two.

Earn the Ivy Tech Certificate in Structural Welding at WCC. Take dual credit classes at your high school to work toward the next steps of a Technical Certificate and/or Associate in Applied Science at Ivy Tech:

- Dual Credit Speech
- Dual Credit Math
- Dual Credit English
- Dual Credit Physical Science

## NEXT CAREER STEPS

Students who have earned the Ivy Tech Certificate in Structural Welding are eligible to participate in Ivy Tech Richmond's graduation ceremony. Students can also go on to earn a Technical Certificate in Welding Technology or an Associate of Applied Science in Industrial Technology. Other options are to enter full-time employment, enter apprenticeships, join the military, and/or continue education and training on the job and in college.

## POTENTIAL CAREERS

- Welder, Cutter, Solderer, & Brazer \$44,360
- Assembler & Fabricator \$35,650
- General Maintenance & Repair Worker \$41,020
- Industrial Engineering Technician \$58,860
- Industrial Production Manager \$113,370
- Industrial Engineer \$91,630

INDIANA MEAN WAGE

All career and salary information is cited from the U.S. Department of Labor Bureau of Labor Statistics, May 2020 State Occupational Employment & Wage Estimates.

## TRANSCRIPT INFORMATION

NEXT LEVEL PROGRAM OF STUDY

Cluster: Advanced Manufacturing Pathway: Welding Technology

### WELDING TECHNOLOGY YEAR I

DOE Course Codes:

7110	Principles of Welding Technology	1 credit per semester
7111	Shielded Metal Arc Welding	1 credit per semester
7101	Gas Welding Processes	1 credit per semester

Co-requisites: Courses must be taken concurrently

Recommended Grade Levels: 11, 12

### WELDING TECHNOLOGY YEAR II

DOE Course Codes:

5778 Welding Technology II 3 credits per semester

Prerequisite: Year I

Recommended Grade Level: 12

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