

WELDING TECHNOLOGY



What Is Welding Technology?

Welding is the most common method of permanently joining metal parts. Metals are heated to a liquid state, causing them to flow together to achieve a strong bond. Welders operate electric and gas welding rigs to cut and join steel, iron, or other metals. Sheet metal is used as a building material in many military construction projects. Ships, tanks, and aircraft are made of heavy metal armor. Welders and metal workers make and install sheet metal products, such as roofs, air ducts, gutters, and vents. They also make custom parts to repair the structural parts of ships, submarines, landing craft, buildings, and equipment.

Job Outlook

The outsourcing of welding positions to foreign countries and companies has resulted in the displacement of American workers. As America proceeds to rebuild its infrastructure, the need for skilled and trained steel and metal workers here at home is greater than ever, and the number of welding jobs and opportunities continues to grow.

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One Community College Drive | Hazard, KY 41701 | (606) 436-5721 | hazard.kctcs.edu



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KENTUCKY COMMUNITY AND TECHNICAL COLLEGE SYSTEM

WELDING TECHNOLOGY

CURRICULUM AND OTHER INFORMATION WELDING TECHNOLOGY DIPLOMA & CERTIFICATES

DIPLOMA

COMBINATION WELDER

General Education	Credits
ENG 101 Writing I OR.....	3
TEC 200 Technical Communications OR	(3)
MT 110 Applied Mathematics OR.....	3
MT 116 Technical Mathematics OR.....	(3)
MT 146 Contemporary College Mathematics OR	(3)
MT 150 College Algebra	(3)
Subtotal	6

Technical Core

Computer Literacy.....	(0-3)
WLD 100 Oxy-Fuel Systems OR.....	2
WLD 110 Cutting Processes	(2)
WLD 101 Oxy-Fuel Systems Lab OR.....	2
WLD 111 Cutting Processes Lab.....	(3)
WLD 120 Shielded Metal Arc Welding (SMAW).....	2
WLD 121 Shielded Metal Arc Welding (SMAW) Fillet Lab.....	3
WLD 123 Shielded Metal Arc Welding (SMAW) Groove Welds with Backing Lab OR	3
WLD 225 Shielded Metal Arc Welding (SMAW) Open Groove Lab	(3)
WLD 130 Gas Tungsten Arc Welding (GTAW)	2
WLD 131 Gas Tungsten Arc Welding (GTAW) Fillet Lab.....	3
WLD 133 Gas Tungsten Arc Welding (GTAW) Groove Lab.....	3
WLD 140 Gas Metal Arc Welding (GMAW)	2
WLD 141 Gas Metal Arc Welding (GMAW) Fillet Lab	3
WLD 143 Gas Metal Arc Welding (GMAW) Groove Lab	3
WLD 170 Blueprint Reading for Welding	2
WLD 171 Blueprint Reading for Welding Lab.....	3
WLD 220 Welding Certification.....	2
WLD 221 Welding Certification Lab	3
WLD 298 Welding Practicum OR	1-4
WLD 299 Cooperative Work Experience	(1-4)
Technical Elective*	2-3
Subtotal	41-49
Total Credits	47-55

*Technical Electives

	Credits
WPP 200 Workplace Principles	3
WLD 151 Basic Welding A	2
WLD 161 Submerged Arc Welding Lab	1
WLD 181 Advanced Welding Systems Lab	1
WLD 191 Plasma Arc Welding Systems Lab	1
WLD 147 Flux Cored Arc Welding Lab	1
WLD 145 Gas Metal Arc Welding Aluminum Lab.....	1
WLD 251 Welding Automation Lab.....	1
WLD 253 Pipe Fitting and Template Development Lab.....	1
WLD 229 Shielded Metal Arc Welding Pipe Lab B.....	3
WLD 240 Materials Technology.....	2
BEX 100 Basic Electricity for Non-Majors	3
BEX 101 Basic Electricity Lab for Non-Majors.....	2
FEX 100 Fundamentals of Electricity for Non-Majors	3

(This is not an exclusive list. Other courses may be approved at the discretion of the Program Coordinator.)

CERTIFICATES

GAS WELDER	
Total Credits	4
TACK WELDER	
Total Credits	7-10
ARC WELDER	
Total Credits	24-25
PRODUCTION LINE WELDER	
Total Credits	19-20
AWS National Skills Standards Level I	
Total Credits	33-34
PIPELINE WELDER	
Total Credits	28-40
WELDER HELPER	
Total Credits	2-5

Contact Information:

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