



Curriculum Map

Knox Technical Center – District IRN#051144

Welding Certification Program

Course Sequence		Total Theory Hours	Total Laboratory Hours	Total Course Hours
Course #	Course Name			
WLD101	<p><i>Introduction to Welding</i></p> <ul style="list-style-type: none"> • Orientation • Computer Applications • Safety in the Welding Shop • Shop Math • Rigging • Bench Tools • Non-Precision Measure • Fasteners • Precision Measurement • Material ID • Blue Print Reading • Layout Procedures 	19	58	77
WLD102	<p><i>Welding Fundamentals & Terminology</i></p> <ul style="list-style-type: none"> • Base Metal Preparation • Welding Joints, Positions, & Symbols • Fabrication Fundamental Techniques • Oxy/Acetylene Operations • Blue Print Reading 	9	14	23
WLD103	<p><i>Shielded Metal Arc Welding (SMAW): Electric Arc Operations</i></p> <ul style="list-style-type: none"> • Equipment & Supplies • Shielded Metal Arc Welding • Blue Print Reading • Term Employability 	18	71	89
WLD201	<p><i>Gas Metal Arc Welding (GMAW): MIG Welding Operations</i></p> <ul style="list-style-type: none"> • Blue Print Reading • Gas Metal & Flux Cored Arc Welding 	26	138	164
WLD202	<p><i>Plasma Arc / Air Carbon Arc Operations</i></p> <ul style="list-style-type: none"> • Blue Print Reading • Plasma Arc Cutting • Term Employability 	9	16	25

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WLD301	<i>Gas Tungsten Arc Welding (GTAW): TIG Welding Operations</i> <ul style="list-style-type: none"> • Blue Print Reading • TIG Welding Procedures • Term Employability 	22	114	136
WLD302	<i>OHSA 10/Environmental</i>	12		12
WLD401	<i>SMAW Pipe Welding Introduction</i> <ul style="list-style-type: none"> • Introduction to pipe welding • Transition to the Workplace • AWS Practice and Testing • Term Employability 	18	141	159
Totals		133	552	685

Hours in session = 685 total hours

Calendar August 2, 2021 – June 1, 2022

Program approved by the Ohio Department of Higher Education (ODHE)

Curriculum approved by the Council on Occupational Education (COE)

Certifications: OSHA-10

American Welding Society D1.1 Certification

- Term 1 – SMAW 3G
- Term 2 - GMAW 3G Vertical & FCAW 3G
- Term 3 – Advanced SMAW
- Term 4 – GTAW (TIG)
 - Introduction to Pipe Welding in Term 4 (no certification)