

Welder (WDA) Apprenticeship Curriculum Mapping

Program Curriculum

A collection of 15 CTS courses has been developed to align with the current Welder Apprenticeship Course Outline. These courses, when combined, cover the First Period technical training content.

Alberta Apprenticeship Training Profile First Period	CTS Course Alignment to Apprenticeship First Period Topics	Assessment
Topic	CTS Course Number and Name	
SECTION ONE – WORKPLACE SAFETY AND TOOLS		
Safety Legislation, Regulations and Industry Policy in the Trades	WDA3900: Apprenticeship Safety	
Climbing, Lifting, Rigging and Hoisting		
Hazardous Materials and Fire Protection		
Alberta's Industry Network		
Welding Safety		
Welder Apprenticeship Program Orientation		
Hand Tools	WDA3401: Tools & Equipment	
Power Tools		
Materials Handling		
Oxyfuel Equipment	WDA3403: Oxyfuel & Plasma Arc	
Oxyfuel Cutting		
Plasma Arc Cutting and Gouging		
SECTION TWO – WELDING TECHNOLOGY AND PROPERTIES OF METAL		
Electricity	WDA3406: Electricity & Metals	
Metal Identification		
Heat Treatment		
Joint and Weld Types	WDA3407: Symbols & Drawings	
Welding Symbols		
Drawing Interpretation		
Distortion	WDA3408: Weld Faults	
Weld Faults		
Hardfacing		

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Topic	CTS Course Number and Name	
SECTION THREE – GMAW, FCAW, MCAW AND SAW		
Wire-Feed Welding Equipment Power Sources	WDA3411: Wire-Feed Welding	
Wire-Feed Welding Filler Metals and Feeders		
Wire-Feed Welding Shielding Gases	WDA3413: Gases & Maintenance	
Wire Welding Maintenance and Troubleshooting		
GMAW on Mild Steel	WDA3415: GMAW on Mild Steel	
FCAW and MCAW on Mild Steel	WDA3420: FCAW & MCAW	
GMAW, FCAW and MCAW Groove Welds on Mild Steel	WDA3423: Mild Steel Welds	
GMAW, FCAW and MCAW on Mild Steel Pipe	WDA3427: Mild Steel Pipe Welds	
Aluminum and Aluminum Welding	WDA3429: Aluminum & SAW	
GMAW on Aluminum		
Submerged Arc Welding (SAW)		
SECTION FOUR – TRADE MATH		
Fractions	WDA3432: Welding Math 1	
Decimals		
Percentage and Ratios		
Geometric Formulas	WDA3437: Welding Math 2	
Metric and Imperial Measure		
CTS COURSES THAT ALLOW STUDENTS ADDITIONAL PRACTICAL TIME		
	WDA3445: WDA Practicum A	
	WDA3450: WDA Practicum B	
	WDA3455: WDA Practicum C	
	WDA3460: WDA Practicum D	