

Agricultural Equipment Technician (AEA) Apprenticeship Curriculum Mapping

Program Curriculum

A collection of 15 CTS courses has been developed to align with the current Agricultural Equipment Technician 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 – STANDARD WORKPLACE SAFETY, MATERIALS & TOOLS		
Safety Legislation, Regulations and Industry Policy in the Trades	AEA3900: Apprenticeship Safety	
Climbing, Lifting, Rigging and Hoisting		
Hazardous Materials and Fire Protection		
Communication		
Materials, Fastening Devices and Sealing Systems	AEA3400: Tools & Materials	
Precision Measuring Tools		
Hand Tools		
SECTION TWO – ELECTRIC WELDING AND OXYFUEL CUTTING		
Welding Safety	AEA3405: Welding Equipment	
Oxyfuel Equipment		
SMAW (Shielded Metal Arc Welding)	AEA3410: Electric Welding	
GMAW (Gas Metal Arc Welding)		
SECTION THREE – BASIC ELECTRICAL		
Electrical Fundamentals	AEA3415: Electrical Fundamentals	
Magnetism Fundamentals		
Voltage		
Electrical Current	AEA3420: Current & Resistance	
Electrical Resistance		
Introduction to Lead-acid Battery	AEA3425: Batteries & Diagnostics	
Diagnostic Procedures	AEA3430: Electrical Diagnostics	

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SECTION FOUR – BASIC HYDRAULICS		
Hydraulic Fundamentals	AEA3435: Hydraulic Fundamentals	
Hydraulic System Components: Reservoir, Filters, Hoses and Coolers		
Hydraulic System Components: Pumps, Valves, Cylinders and Accumulators	AEA3440: Hydraulic Systems	
Hydraulic Systems		
SECTION FIVE – AGRICULTURAL EQUIPMENT		
Tractor Performance	AEA3445: Farm Equipment 1	
Steering Systems on Agricultural Equipment		
Cutting Equipment (includes all types of crop-cutting equipment)		
Baling Equipment	AEA3450: Farm Equipment 2	
Tillage Implements	AEA3455: Farm Equipment 3	
Other Types of Agricultural Equipment		
SECTION SIX – POWER TRAIN I		
Clutch Fundamentals and Service	AEA3460: Power Transmission	
Driveline Fundamentals and Service		
Gearing Principles	AEA3465: Gears & Axles	
Drive Axle and Differential Fundamentals		
CTS COURSES THAT ALLOW STUDENTS ADDITIONAL PRACTICAL TIME		
	AEA3470: AEA Practicum A	
	AEA3475: AEA Practicum B	
	AEA3480: AEA Practicum C	
	AEA3485: AEA Practicum D	