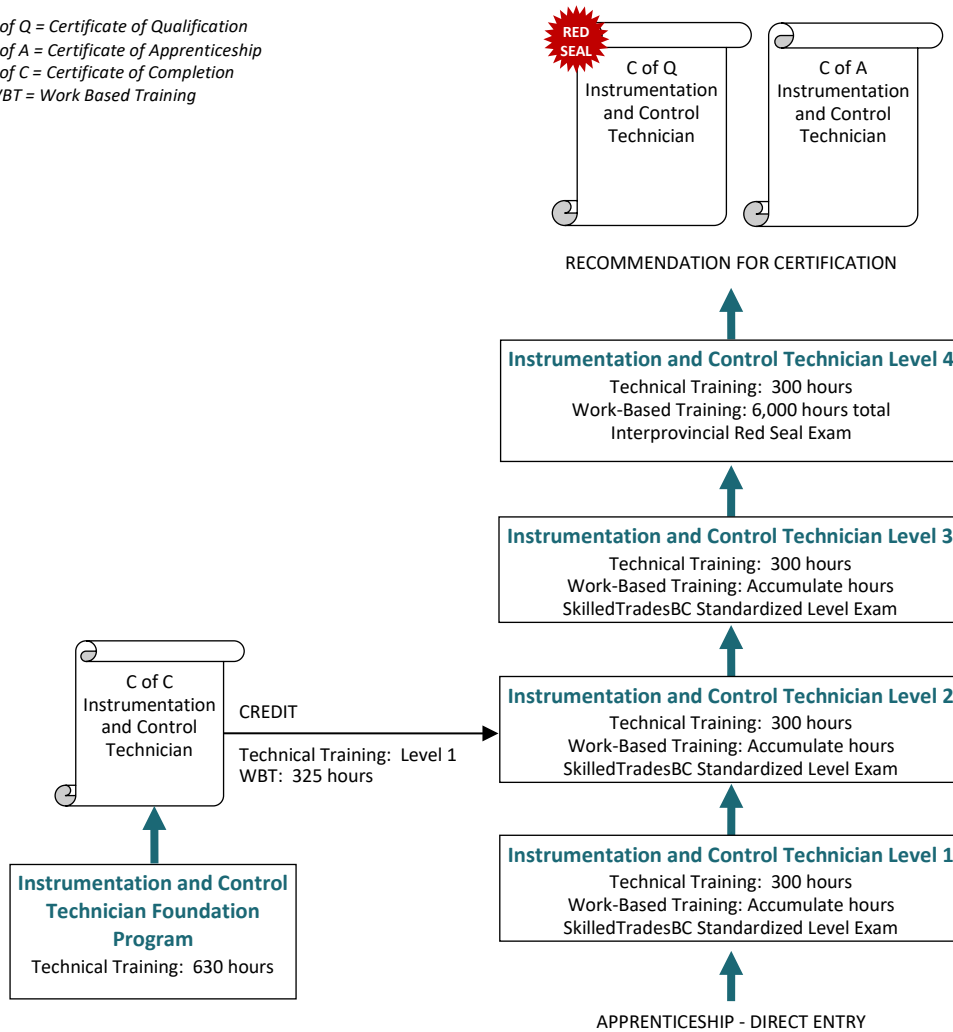


Program Credentialing Model

Apprenticeship pathway

This graphic provides an overview of the Instrumentation and Control Technician (Industrial Instrument Mechanic) apprenticeship pathway.

C of Q = Certificate of Qualification
C of A = Certificate of Apprenticeship
C of C = Certificate of Completion
WBT = Work Based Training



CROSS-PROGRAM CREDITS

Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program

None

Training Topics and Suggested Time Allocation – Level 1

INSTRUMENTATION AND CONTROL TECHNICIAN

		% of Time Allocated to:			
		% of Time	Theory	Practical	Total
Line A	PERFORM SAFETY RELATED FUNCTIONS	3%	80%	20%	100%
A1	Maintain safe work environment		✓		
A2	Use personal protective equipment (PPE) and safety equipment		✓		
A3	Perform lock-out and tag-out procedures		✓	✓	
A4	Service and calibrate personal safety systems		✓		
Line B	USE TOOLS AND EQUIPMENT	3%	80%	20%	100%
B1	Use hand and power tools		✓		
B2	Use test equipment		✓	✓	
B3	Use access equipment		✓		
B4	Use rigging, hoisting and lifting equipment		✓		
Line C	ORGANIZE WORK	5%	80%	20%	100%
C2	Use computers and related applications		✓	✓	
C3	Apply codes, standards and regulations		✓		
C4	Use trade related diagrams, drawings and schematics		✓	✓	
Line D	USE COMMUNICATION AND MENTORING TECHNIQUES	2%	60%	40%	100%
D1	Use communication techniques		✓		
Line E	INSTALL AND SERVICE PROCESS MEASURING AND INDICATING DEVICES	15%	40%	60%	100%
E1	Calibrate and service indicating and recording devices		✓	✓	
E2	Install and service pressure measuring devices		✓	✓	
Line F	INSTALL AND SERVICE PNEUMATIC AND HYDRAULIC EQUIPMENT	8%	40%	60%	100%
F1	Apply the principles of air supply		✓	✓	
F2	Install tubing and fittings		✓	✓	
F3	Install and service pneumatic systems		✓	✓	
Line G	INSTALL AND SERVICE ELECTRICAL AND ELECTRONIC EQUIPMENT	30%	40%	60%	100%
G1	Apply the principles of electrical theory		✓		
G2	Perform wiring installations using the Canadian Electrical Code (CEC)		✓		
G3	Apply the principles of DC electricity		✓	✓	
G4	Apply the principles of AC electricity		✓	✓	
G5	Apply Boolean logic and principles of digital electronics		✓	✓	
Line H	INSTALL AND SERVICE FINAL CONTROL ELEMENTS	28%	40%	60%	100%
H1	Install and service regulators and relief valves		✓	✓	

		% of Time Allocated to:			
		% of Time	Theory	Practical	Total
H2	Install and service control valves and actuators		✓	✓	
H3	Install and service valve positioners		✓	✓	
Line J	INSTALL AND SERVICE CONTROL SYSTEMS AND PROCESS CONTROL	6%	40%	60%	100%
J3	Install and service programmable logic controllers (PLC)		✓	✓	
Total Percentage for Instrumentation and Control Technician Level 1		100%			