

Industrial Electrician RSOS (2021) Subtask to Unit Comparison

RSOS Subtask		Manitoba Unit(s)
Task A-1 – Performs safety-related functions.		
A-1.01	Maintains safe work environment.	A2 Trade Safety Awareness
A-1.02	Uses personal protective equipment (PPE) and safety equipment.	A2 Trade Safety Awareness
A-1.03	Performs lock-out and tag-out procedures.	A2 Trade Safety Awareness
A-1.04	Identifies environmental conditions.	A2 Trade Safety Awareness
Task A-2 – Uses tools and equipment.		
A-2.01	Uses common and specialty tools and equipment.	A6 Residential Wiring Practices
A-2.02	Uses access equipment.	A2 Trade Safety Awareness
A-2.03	Uses rigging, hoisting and lifting equipment.	A2 Trade Safety Awareness (<i>awareness only</i>)
Task A-3 – Organizes work.		
A-3.01	Interprets plans, drawings and specifications.	A5 Residential Electrical Code A6 Residential Wiring Practices B2 Commercial Code Applications C1 Industrial Electrical Code I D2 Industrial Control Systems II
A-3.02	Identifies hazardous installations.	A2 Trade Safety Awareness B2 Commercial Code Applications C1 Industrial Electrical Code I D2 Industrial Control Systems II
A-3.03	Organizes materials and supplies.	A3 Computer and Communication Skills B2 Commercial Code Applications C1 Industrial Electrical Code I D2 Industrial Control Systems II
A-3.04	Plans project tasks and procedures.	A3 Computer and Communication Skills B2 Commercial Code Applications C5 Industrial Control Systems I D2 Industrial Control Systems II
A-3.05	Prepares specific location in facility.	A2 Trade Safety Awareness B2 Commercial Code Applications C5 Industrial Control Systems I D2 Industrial Control Systems II
A-3.06	Finalizes required documentation.	A3 Computer and Communication Skills B2 Commercial Code Applications C5 Industrial Control Systems I D2 Industrial Control Systems II
Task A-4 – Fabricates and installs support components.		
A-4.01	Fabricates support structures.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II

A-4.02	Installs brackets, hangers and fasteners.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
A-4.03	Installs seismic restraint systems.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
Task A-5 – Commissions and decommissions electrical systems.		
A-5.01	Commissions systems.	A6 Residential Wiring Practices B4 Motor Controls C6 AC Machines and Controls D1 Industrial Electrical Code II
A-5.02	Performs shutdown and startup procedures.	A2 Trade Safety Awareness B4 Motor Controls C6 AC Machines and Controls D1 Industrial Electrical Code II
A-5.03	Decommissions systems.	A6 Residential Wiring Practices B4 Motor Controls C6 AC Machines and Controls D1 Industrial Electrical Code II
Task A-6 – Uses communication and mentoring techniques.		
A-6.01	Uses communication techniques.	A3 Computer and Communication Skills
A-6.02	Uses mentoring techniques.	D8 Journey person Trainer
Task B-7 Installs and maintains utility and non-utility supply services and metering equipment.		
B-7.01	Installs single-phase utility and non-utility supply services and metering equipment.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code B2 Commercial Code Applications
B-7.02	Maintains single-phase utility and non-utility supply services and metering equipment.	A5 Residential Electrical Code B1 Commercial Electrical Code B2 Commercial Code Applications
B-7.03	Installs three-phase utility and non-utility supply services and metering equipment.	B2 Commercial Code Applications C1 Industrial Electrical Code I
B-7.04	Maintains three-phase utility and non-utility supply services and metering equipment.	B2 Commercial Code Applications C1 Industrial Electrical Code I
Task B-8 – Installs and maintains protection devices.		
B-8.01	Installs overcurrent protection devices.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
B-8.02	Maintains overcurrent protection devices.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
B-8.03	Installs ground fault, arc fault and surge protection devices.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I

		C6 AC Machines and Controls D1 Industrial Electrical Code II
B-8.04	Maintains ground fault, arc fault and surge protection devices.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code B2 Commercial Code Applications C6 AC Machines and Controls D1 Industrial Electrical Code II
B-8.05	Installs under- and over-voltage protection devices.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code B2 Commercial Code Applications C6 AC Machines and Controls D1 Industrial Electrical Code II
B-8.06	Maintains under- and over-voltage protection devices.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code B2 Commercial Code Applications C6 AC Machines and Controls D1 Industrial Electrical Code II
Task B-9 – Installs and maintains low-voltage distribution systems.		
B-9.01	Installs low-voltage distribution equipment.	A5 Residential Electrical Code B2 Commercial Code Applications C1 Industrial Electrical Code I
B-9.02	Maintains low-voltage distribution equipment.	A5 Residential Electrical Code B2 Commercial Code Applications C1 Industrial Electrical Code I
Task B-10 – Installs and maintains power conditioning systems.		
B-10.01	Installs power conditioning systems.	C3 Power Quality D7 Electrical Measuring Systems
B-10.02	Maintains power conditioning systems.	B2 Commercial Code Applications C3 Power Quality D7 Electrical Measuring Systems
Task B-11 – Installs and maintains bonding, grounding and ground-fault protection and detection systems.		
B-11.01	Installs grounding systems.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
B-11.02	Maintains grounding systems.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
B-11.03	Installs bonding systems.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I
B-11.04	Maintains bonding systems.	B1 Commercial Electrical Code C1 Industrial Electrical Code I
B-11.05	Installs ground-fault protection and detection systems.	B1 Commercial Electrical Code C3 Power Quality C1 Industrial Electrical Code I D1 Industrial Electrical Code II D7 Electrical Measuring Systems
B-11.06	Maintains ground-fault protection and detection systems.	C3 Power Quality C1 Industrial Electrical Code I D1 Industrial Electrical Code II

		D7 Electrical Measuring Systems
Task B-12 – Installs and maintains power generating and conversion systems.		
B-12.01	Installs alternating current (AC) generating systems.	C6 AC Machines and Controls
B-12.02	Maintains alternating current (AC) generating systems.	C6 AC Machines and Controls
B-12.03	Installs direct current (DC) generating and conversion systems.	B6 DC Machines and Controls
B-12.04	Maintains direct current (DC) generating and conversion systems.	B6 DC Machines and Controls
Task B-13 – Installs and maintains renewable energy generating and energy storage systems.		
B-13.01	Installs renewable energy generating and energy storage systems.	B2 Commercial Code Applications C1 Industrial Electrical Code I D1 Industrial Electrical Code II
B-13.02	Maintains renewable energy generating and energy storage systems.	B2 Commercial Code Applications C1 Industrial Electrical Code I D1 Industrial Electrical Code II
Task B-14 – Installs and maintains high-voltage systems.		
B-14.01	Installs high-voltage systems.	C1 Industrial Electrical Code I D1 Industrial Electrical Code II
B-14.02	Maintains high-voltage systems.	C1 Industrial Electrical Code I D5 Predictive and Preventive Maintenance II
Task B-15 – Installs and maintains transformers.		
B-15.01	Installs extra-low voltage transformers.	B2 Commercial Code Applications
B-15.02	Maintains extra-low voltage transformers.	B2 Commercial Code Applications
B-15.03	Installs low voltage single-phase transformers.	B2 Commercial Code Applications
B-15.04	Maintains low voltage single-phase transformers.	B2 Commercial Code Applications
B-15.05	Installs low voltage three-phase transformers.	C1 Industrial Electrical Code I C2 Three Phase Theory and Transformers D1 Industrial Electrical Code II D5 Predictive and Preventive Maintenance II
B-15.06	Maintains low voltage three-phase transformers.	C1 Industrial Electrical Code I C2 Three Phase Theory and Transformers D1 Industrial Electrical Code II D5 Predictive and Preventive Maintenance II
B-15.07	Installs high voltage transformers.	C1 Industrial Electrical Code I D1 Industrial Electrical Code II D5 Predictive and Preventive Maintenance II
B-15.08	Maintains high voltage transformers.	C1 Industrial Electrical Code I D1 Industrial Electrical Code II D5 Predictive and Preventive Maintenance II
Task C-16 – Installs and maintains raceways, cables, conductors and enclosures.		
C-16.01	Installs conductors and cables.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-16.02	Maintains conductors and cables.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I

		D1 Industrial Electrical Code II
C-16.03	Installs conduit, tubing and fittings.	A5 Residential Electrical Code A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-16.04	Installs raceways.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-16.05	Installs boxes and enclosures.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-16.06	Maintains conduit, tubing, fittings, raceways, boxes and enclosures.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
Task C-17 – Installs and maintains branch circuitry and devices.		
C-17.01	Installs luminaires.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-17.02	Maintains luminaires.	A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-17.03	Installs wiring devices.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-17.04	Maintains wiring devices.	A6 Residential Wiring Practices B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
Task C-18 – Installs and maintains heating, ventilation and air-conditioning (HVAC) electrical components.		
C-18.01	Connects power to HVAC systems and associated equipment.	B4 Motor Controls C5 Industrial Control Systems I D2 Industrial Control Systems II
C-18.02	Installs HVAC controls.	B4 Motor Controls C5 Industrial Control Systems I D2 Industrial Control Systems II
C-18.03	Maintains HVAC electrical components.	B4 Motor Controls C5 Industrial Control Systems I D2 Industrial Control Systems II
Task C-19 – Installs and maintains electric heating systems and controls.		
C-19.01	Installs electric heating systems and controls.	A5 Residential Electrical Code B1 Commercial Electrical Code C1 Industrial Electrical Code I C5 Industrial Control Systems I D1 Industrial Electrical Code II D2 Industrial Control Systems II

C-19.02	Maintains electric heating systems and controls.	A5 Residential Electrical Code B2 Commercial Code Applications C1 Industrial Electrical Code I C5 Industrial Control Systems I D1 Industrial Electrical Code II D2 Industrial Control Systems II
Task C-20 – Installs and maintains exit and emergency lighting systems.		
C-20.01	Installs exit and emergency lighting systems.	B2 Commercial Code Applications C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-20.02	Maintains exit and emergency lighting systems.	B2 Commercial Code Applications C1 Industrial Electrical Code I D1 Industrial Electrical Code II
Task C-21 – Installs and maintains cathodic protection systems.		
C-21.01	Installs cathodic protection systems.	B2 Commercial Code Applications C1 Industrial Electrical Code I D1 Industrial Electrical Code II
C-21.02	Maintains cathodic protection systems.	B2 Commercial Code Applications C1 Industrial Electrical Code I D1 Industrial Electrical Code II
Task D-22 – Installs and maintains motor starters and control devices.		
D-22.01	Installs motor starters.	B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II D2 Industrial Control Systems II
D-22.02	Maintains motor starters.	B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II D2 Industrial Control Systems II
D-22.03	Installs motor control devices.	B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II D2 Industrial Control Systems II
D-22.04	Maintains motor control devices.	B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II D2 Industrial Control Systems II
Task D-23 – Installs and maintains drives.		
D-23.01	Installs alternating current (AC) drives.	C4 Electronic Concepts II D4 AC and DC Variable Speed Motor Drives
D-23.02	Maintains AC drives.	C4 Electronic Concepts II D4 AC and DC Variable Speed Motor Drives
D-23.03	Installs direct current (DC) drives.	C4 Electronic Concepts II D4 AC and DC Variable Speed Motor Drives
D-23.04	Maintains DC drives.	C4 Electronic Concepts II D4 AC and DC Variable Speed Motor Drives
Task D-24 – Installs and maintains other fixed equipment and associated controls.		
D-24.01	Installs other fixed equipment and associated controls.	D5 Predictive and Preventive Maintenance II
D-24.02	Maintains other fixed equipment and associated controls.	D5 Predictive and Preventive Maintenance II

Task D-25 – Installs and maintains motors.		
D-25.01	Installs single-phase motors.	B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
D-25.02	Maintains single-phase motors.	B1 Commercial Electrical Code C1 Industrial Electrical Code I D1 Industrial Electrical Code II
D-25.03	Installs three-phase motors.	C1 Industrial Electrical Code I D1 Industrial Electrical Code II
D-25.04	Maintains three-phase motors.	C1 Industrial Electrical Code I D1 Industrial Electrical Code II
D-25.05	Installs direct current (DC) motors.	B6 DC Machines and Controls C6 AC Machines and Controls D9 Pre-Interprovincial Exam Review
D-25.06	Maintains DC motors.	B6 DC Machines and Controls C6 AC Machines and Controls D9 Pre-Interprovincial Exam Review
Task E-26 – Installs and maintains signaling systems.		
E-26.01	Installs fire alarm systems.	D2 Industrial Control Systems II
E-26.02	Maintains fire alarm systems.	D2 Industrial Control Systems II
E-26.03	Installs security and surveillance systems.	D2 Industrial Control Systems II
E-26.04	Maintains security and surveillance systems.	D2 Industrial Control Systems II
Task E-27 – Installs and maintains communication systems.		
E-27.01	Installs communication systems.	A6 Residential Wiring Practices D2 Industrial Control Systems II
E-27.02	Maintains communication systems.	A6 Residential Wiring Practices D2 Industrial Control Systems II
Task F-28 – Installs and maintains building automation systems.		
F-28.01	Installs building automation systems.	D2 Industrial Control Systems II
F-28.02	Maintains building automation systems.	D2 Industrial Control Systems II
Task F-29 – Installs and maintains input/output (I/O) devices.		
F-29.01	Installs discrete input/output (I/O) devices.	C5 Industrial Control Systems I D2 Industrial Control Systems II
F-29.02	Maintains discrete input/output (I/O) devices.	C5 Industrial Control Systems I D2 Industrial Control Systems II
F-29.03	Installs analog input/output (I/O) devices.	C5 Industrial Control Systems I D2 Industrial Control Systems II
F-29.04	Maintains analog input/output (I/O) devices.	C5 Industrial Control Systems I D2 Industrial Control Systems II
Task F-30 – Installs, programs and maintains automated control systems.		
F-30.01	Installs automated control systems.	D2 Industrial Control Systems II D7 Electrical Measuring Systems
F-30.02	Maintains automated control systems.	D2 Industrial Control Systems II D7 Electrical Measuring Systems
F-30.03	Programs automated control systems.	D2 Industrial Control Systems II D7 Electrical Measuring Systems
F-30.04	Optimizes system performance.	D2 Industrial Control Systems II D7 Electrical Measuring Systems

Task F-31 – Installs and maintains pneumatic and hydraulic control systems.		
F-31.01	Installs pneumatic control systems.	D6 Hydraulic and Pneumatic Power Control Systems
F-31.02	Maintains pneumatic control systems.	D6 Hydraulic and Pneumatic Power Control Systems
F-31.03	Installs hydraulic control systems.	D6 Hydraulic and Pneumatic Power Control Systems
F-31.04	Maintains hydraulic control systems.	D6 Hydraulic and Pneumatic Power Control Systems



04-2025