## Apprenticeship Manitoba

## Plumber RSOS (2016) Subtask to Unit Comparison

	RSOS Subtask	Manitoba Unit(s)
Task	1 – Performs safety-related funct	
1.01	Maintains safe work environment.	A1.a Safety Related Functions
		All Units from Level 1 through Level 4
1.02	Uses personal protective equipment	A1.a Safety Related Functions
	(PPE) and safety equipment.	All Units from Level 1 through Level 4
1.03	Performs lock-out and tag-out	All Units from Level 1 through Level 4
	procedures.	
Task	2 – Uses and maintains tools and	l equipment
2.01	Uses common tools and equipment.	A2a Plumbing Tools and Equipment
2.01		All Units from Level 1 through Level 4
2.02	Uses access equipment.	A2c Access Equipment
2.02	Uses rigging, hoisting, lifting and	A2b Hoisting and Lifting and Rigging
2.05	positioning equipment.	Azb Holsting and Litting and Higging
2.04	Rigs loads for cranes.	A2b Hoisting and Lifting and Rigging
2.05	Uses welding equipment.	A2d Fuel Brazing and Cutting
2.06	Uses soldering and brazing equipment.	A5a Materials & Pipe, Tube and Tubing and fundamentals
		(Theory)
		A6a Pipe, Tube and Tubing and fundamentals (Practical)
2.07	Uses oxy-fuel equipment.	A2d Fuel Brazing and Cutting
	3 – Organizes work.	
3.01	Organizes project tasks and	B1b Commissioning
	procedures.	D1c Job Planning
3.02	Organizes materials and supplies.	A5a Materials & Pipe, Tube and Tubing and fundamentals
		(Theory)
		A6a Pipe, Tube and Tubing and fundamentals (Practical)
Tack	4 – Performs routine trade activit	tios
4.01	Performs piping system layout.	
4.01	Penomis piping system layout.	A3c Drawings A7a Residential Sanitary Drainage Systems
		B3a Interior Drainage, Waste and Vent (DWV) Systems II C2a Commercial Waste Systems
		C2b Rural Water Supply
		C3a Water Service
		C4a Potable Water Distribution
		C4a Potable Water Distribution
4.00	Calculates nine lengths	D11a Gas Piping Systems
4.02	Calculates pipe lengths.	A8a Mathematics and Science I
		B5a Mathematics and Science II
		C9a Mathematics III
		C9b Trade Science III
4.00		D7a Pre-IP Trade Mathematics IV & Science Review
4.03	Calculates piping offsets.	A8a Mathematics and Science I
		B5a Mathematics and Science II
		C9a Mathematics III
		C9b Trade Science III
		D7a Pre-IP Trade Mathematics IV & Science Review
4.04	Installs piping supports.	A5a Materials & Pipe, Tube and Tubing and fundamentals
		(Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals

	RSOS Subtask	Manitoba Unit(s)
		<ul> <li>(Practical)</li> <li>A7a Residential Sanitary Drainage Systems</li> <li>B3a Interior Drainage, Waste and Vent (DWV) Systems II</li> <li>B4a Piping Valves II</li> <li>B4b Hydronic System Control</li> <li>C2a Commercial Waste Systems</li> <li>D2a Private Sewage Disposal Systems.</li> </ul>
4.05	Installs sleeves.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical) A7a Residential Sanitary Drainage Systems B3a Interior Drainage, Waste and Vent (DWV) Systems II B4a Piping Valves II B4b Hydronic System Control C2a Commercial Waste Systems D2a Private Sewage Disposal Systems.
4.06	Commissions systems.	B1b Commissioning
4.07	Protects piping systems, equipment and structure from damage.	B1a Routine Trade Activities II
4.08	Coordinates excavation and backfilling of trenches.	A3a Routine Trade Activities I
4.09	Installs fire stopping devices and materials.	B1a Routine Trade Activities II
Task	5 - Uses communication and mer	ntoring techniques.
5.01	Uses communication techniques.	D1b Communication and Trade Documentation A4a Introduction to Computers D1c Job Planning
5.02	Uses mentoring techniques.	D1a Mentoring/Coaching
Task	6 – Prepares pipe.	
6.01	Inspects tube, tubing, pipe and fittings before installation.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical) A7a Residential Sanitary Drainage Systems B3a Interior Drainage, Waste and Vent (DWV) Systems II C2a Commercial Waste Systems C4a Potable Water Distribution C4b Cross Connection Control C5a Hydronic Systems (Cooling and Low Pressure Heating) D6a Process Piping
6.02	Cuts tube, tubing and pipe.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical) A7a Residential Sanitary Drainage Systems B3a Interior Drainage, Waste and Vent (DWV) Systems II C2a Commercial Waste Systems C4a Potable Water Distribution C4b Cross Connection Control C5a Hydronic Systems (Cooling and Low Pressure Heating) D6a Process Piping
6.03	Bends tube, tubing and pipe.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical)

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		<ul> <li>A7a Residential Sanitary Drainage Systems</li> <li>B3a Interior Drainage, Waste and Vent (DWV) Systems II</li> <li>C2a Commercial Waste Systems</li> <li>C4a Potable Water Distribution</li> <li>C4b Cross Connection Control</li> <li>C5a Hydronic Systems (Cooling and Low Pressure Heating)</li> <li>D6a Process Piping</li> </ul>
6.04	Prepares tube, tubing and pipe connections.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical) A7a Residential Sanitary Drainage Systems B3a Interior Drainage, Waste and Vent (DWV) Systems II C2a Commercial Waste Systems C4a Potable Water Distribution C4b Cross Connection Control C5a Hydronic Systems (Cooling and Low Pressure Heating) D6a Process Piping
Task	7 – Joins tube, tubing and pipe.	
7.01	Joins copper tube, tubing and pipe.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical)
7.02	Joins plastic pipe and tubing.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical)
7.03	Joins steel pipe.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical)
7.04	Joins cast iron pipe.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical)
7.05	Joins specialized pipe.	A5a Materials & Pipe, Tube and Tubing and fundamentals (Theory) A6a Materials & Pipe, Tube and Tubing and fundamentals (Practical)
Teels		
1ask 8.01	<b>8 – Installs, tests and services s</b> Sizes pipe for sewers.	C1a Storm and Combinations Drainage Systems
0.01		Ca Storm and Combinations Drainage Systems C8a Sketching/Blueprint Reading
8.02	Installs manholes and catch basins.	C1a Storm and Combinations Drainage Systems C8a Sketching/Blueprint Reading
8.03	Installs piping for sewers.	C1a Storm and Combinations Drainage Systems C8a Sketching/Blueprint Reading
8.04	Tests manholes, catch basins and piping for sewers.	C1a Storm and Combinations Drainage Systems C8a Sketching/Blueprint Reading
8.05	Services manholes, catch basins and piping for sewers.	C1a Storm and Combinations Drainage Systems C8a Sketching/Blueprint Reading
<b>Task</b> 9.01	9 – Installs, tests and services services of Plans installation of sewage treatment	ewage treatment systems. D2a Private Sewage Disposal Systems

	RSOS Subtask	Manitoba Unit(s)
	systems.	
9.02	Installs sewage treatment system components.	D2a Private Sewage Disposal Systems
9.03	Tests sewage treatment systems and components.	D2a Private Sewage Disposal Systems
9.04	Services sewage treatment systems and components.	D2a Private Sewage Disposal Systems
Task syste		nterior drainage, waste and vent (DWV)
10.01	Sizes pipe for interior drainage, waste	A7a Residential Sanitary Drainage Systems
10.01	and vent (DWV) systems.	B3a Interior Drainage, Waste and Vent (DWV) Systems II C2a Commercial Waste Systems
		C2b Rural Water Supply
10.02	Installe underground nining and	D2a Private Sewage Disposal Systems
10.02	Installs underground piping and components for interior drainage, waste	B3a Interior Drainage, Waste and Vent (DWV) Systems II C2a Commercial Waste Systems
	and vent (DWV) systems.	C2b Rural Water Supply
		D2a Private Sewage Disposal Systems
10.03	Installs piping and components for	B3a Interior Drainage, Waste and Vent (DWV) Systems II
	interior drainage, waste and vent (DWV)	C2a Commercial Waste Systems
	above-ground systems.	C2b Rural Water Supply
		D2a Private Sewage Disposal Systems
10.04	0	B3a Interior Drainage, Waste and Vent (DWV) Systems II
	(DWV) systems.	C2a Commercial Waste Systems
		C2b Rural Water Supply
10.05	Convises sisting and components for	D2a Private Sewage Disposal Systems B3a Interior Drainage, Waste and Vent (DWV) Systems II
10.05	Services piping and components for interior drainage, waste and vent (DWV)	C2a Commercial Waste Systems
	systems.	C2b Rural Water Supply
	Systems.	D2a Private Sewage Disposal Systems
Task	11 – Installs, tests and services w	vater services.
11.01	Sizes pipe for water services.	C2a Commercial Waste Systems
		C2b Rural Water Supply
		C4a Potable Water Distribution
44.00	lastella minima ferrustar comúnec	C4b Cross Connection Control
11.02	Installs piping for water services.	C2a Commercial Waste Systems C2b Rural Water Supply
		C4a Potable Water Distribution
		C4b Cross Connection Control
11.03	Installs water service equipment.	C2a Commercial Waste Systems
		C2b Rural Water Supply
		C4a Potable Water Distribution
		C4b Cross Connection Control
11.04	Tests water service piping and	C2a Commercial Waste Systems
	components.	C2b Rural Water Supply
		C4a Potable Water Distribution
		C4b Cross Connection Control
11.05	Services water services.	C2a Commercial Waste Systems
		C2b Rural Water Supply
		C4a Potable Water Distribution
		C4b Cross Connection Control
Task	12 – Installs, tests and services p	otable water distribution systems.
12.01	Sizes piping and equipment for potable	C4a Potable Water Distribution
0 1	water distribution systems.	C3b Rural Water Supply
12.01		C3b Rural Water Supply D3a Water Treatment Systems C3b Rural Water Supply

	RSOS Subtask	Manitoba Unit(s)
	distribution systems.	C4a Potable Water Distribution
		D3a Water Treatment Systems
12.03	Installs potable water distribution	C3b Rural Water Supply
12.00	equipment.	C4a Potable Water Distribution
		D3a Water Treatment Systems
12.04	Installs cross-connection control	C4b Cross Connection Control
12.04	devices.	
12.05	Tests potable water distribution	C4a Potable Water Distribution
	systems.	C3b Rural Water Supply
		D3a Water Treatment Systems
12.06	Services potable water distribution	C4a Potable Water Distribution
	systems.	C3b Rural Water Supply
		D3a Water Treatment Systems
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	13 – Installs, tests and services p	
13.01	Sizes pressure systems.	C6a Specialized Systems I (includes residential irrigation,
		compressed air, green systems)
		C6b Specialty Piping Systems
		D3a Water Treatment Systems
		D4a Low Pressure Steam Systems
		D5a Specialized Systems II (includes fuel systems, medical
		gas systems)
40.00		D6a Process Piping
13.02	Installs piping for pressure systems.	C6a Specialized Systems I (includes residential irrigation,
		compressed air, green systems)
		C6b Specialty Piping Systems
		D3a Water Treatment Systems
		D4a Low Pressure Steam Systems
		D5a Specialized Systems II (includes fuel systems, medical
		gas systems)
40.00	la stelle e suis se sut an el se sus sus sute fan	D6a Process Piping
13.03	Installs equipment and components for	C6a Specialized Systems I (includes residential irrigation,
	pressure systems.	compressed air, green systems)
		C6b Specialty Piping Systems
		D3a Water Treatment Systems
		D4a Low Pressure Steam Systems
		D5a Specialized Systems II (includes fuel systems, medical
		gas systems) D6a Process Piping
13.04	Tests pressure systems.	C6a Specialized Systems I (includes residential irrigation,
13.04	resis pressure systems.	compressed air, green systems)
		C6b Specialty Piping Systems
		D3a Water Treatment Systems
		D4a Low Pressure Steam Systems
		D5a Specialized Systems II (includes fuel systems, medical
		gas systems)
		D6a Process Piping
13.05	Services pressure systems.	C6a Specialized Systems I (includes residential irrigation,
15.05	Dervices pressure systems.	compressed air, green systems)
		C6b Specialty Piping Systems
		D3a Water Treatment Systems
		D4a Low Pressure Steam Systems
		D5a Specialized Systems II (includes fuel systems, medical
		gas systems)
		D6a Process Piping
Task	14 - Installs, tests and services r	blumbing fixtures and appliances.
14.01	Installs fixture supports.	B2a Residential Plumbing Fixtures and Accessories
	••	B2b Appliances (includes gas)
		B2c Piping Valves I

	RSOS Subtask	Manitoba Unit(s)
		B2d Hot Water Storage Tanks and Heaters B2e Commercial/Institutional Plumbing Fixtures and Accessories
14.02	Installs plumbing fixtures and appliances.	B2a Residential Plumbing Fixtures and Accessories B2b Appliances (includes gas) B2c Piping Valves I B2d Hot Water Storage Tanks and Heaters B2e Commercial/Institutional Plumbing Fixtures and Accessories
14.03	Tests plumbing fixtures and appliances.	B2a Residential Plumbing Fixtures and Accessories B2b Appliances (includes gas) B2c Piping Valves I B2d Hot Water Storage Tanks and Heaters B2e Commercial/Institutional Plumbing Fixtures and Accessories
14.04	Services plumbing fixtures and appliances.	B2a Residential Plumbing Fixtures and Accessories B2b Appliances (includes gas) B2c Piping Valves I B2d Hot Water Storage Tanks and Heaters B2e Commercial/Institutional Plumbing Fixtures and Accessories
Taala		
	15 Installs, tests and services wa	
15.01	Sizes water treatment equipment.	D3a Water Treatment Systems
15.02	Installs water treatment equipment.	D3a Water Treatment Systems
15.03	Tests water treatment equipment.	D3a Water Treatment Systems
15.04	Services water treatment equipment.	D3a Water Treatment Systems
Task	16 - Installs, tests and services Ic	bw pressure steam systems.
16.01	Sizes piping and components for low pressure steam systems.	D4a Low Pressure Steam Systems
16.02	Installs piping and components for low pressure steam systems.	D4a Low Pressure Steam Systems
16.03	Tests piping and components for low pressure steam systems.	D4a Low Pressure Steam Systems
16.04	Services piping and components for low pressure steam systems.	D4a Low Pressure Steam Systems
-		ydronic heating and cooling piping systems.
17.01	Sizes piping and components for hydronic systems.	B4a Piping Valves II B4b Hydronic System Control C5a Hydronic Systems (Cooling and Low Pressure Heating) C4b Cross Connection Control
17.02	Installs piping and components for hydronic systems.	B4a Piping Valves II B4b Hydronic System Control C5a Hydronic Systems (Cooling and Low Pressure Heating) C4b Cross Connection Control
17.03	Tests piping and components for hydronic systems.	B4a Piping Valves II B4b Hydronic System Control C5a Hydronic Systems (Cooling and Low Pressure Heating) C4b Cross Connection Control
17.04	Services piping and components for hydronic systems.	B4a Piping Valves II B4b Hydronic System Control C5a Hydronic Systems (Cooling and Low Pressure Heating)

	RSOS Subtask	Manitoba Unit(s)
		C4b Cross Connection Control
Task	18 - Installs, tests and services h	ydronic heating and cooling generating
syste		yaronic nearing and cooling generating
18.01	Installs hydronic heating generating	B4a Piping Valves II
	systems.	B4b Hydronic System Control
		C5a Hydronic Systems (Cooling and Low Pressure Heating) C4b Cross Connection Control
18.02	Installs hydronic cooling generating	B4a Piping Valves II
10.02	systems.	B4b Hydronic System Control
		C5a Hydronic Systems (Cooling and Low Pressure Heating) C4b Cross Connection Control
18.03	Tests hydronic heating and cooling	B4a Piping Valves II
	generating systems.	B4b Hydronic System Control
		C5a Hydronic Systems (Cooling and Low Pressure Heating)
18.04	Services hydronic heating and cooling	C4b Cross Connection Control B4a Piping Valves II
10.04	generating systems.	B4b Hydronic System Control
		C5a Hydronic Systems (Cooling and Low Pressure Heating)
		C4b Cross Connection Control
Took	10 Installs tests and services h	verania avatam controla and transfer unita
19.01	Installs hydronic system controls	ydronic system controls and transfer units. B4b Hydronic System Control
13.01		B6a Fundamentals Of Electrical Appliances and Controls
		C5a Hydronic Systems (Cooling and Low Pressure Heating)
		D4a Low Pressure Steam Systems
19.02	Installs hydronic transfer units.	B2d Hot Water Storage Tanks and Heaters
		B4b Hydronic System Control
		C5a Hydronic Systems (Cooling and Low Pressure Heating) D4a Low Pressure Steam Systems
19.03	Tests hydronic system controls and	B4b Hydronic System Control
10.00	transfer units	B6a Fundamentals Of Electrical Appliances and Controls
		C5a Hydronic Systems (Cooling and Low Pressure Heating)
		D4a Low Pressure Steam Systems
19.04	Services hydronic system controls and	B4b Hydronic System Control
	transfer units.	B6a Fundamentals Of Electrical Appliances and Controls C5a Hydronic Systems (Cooling and Low Pressure Heating)
		D4a Low Pressure Steam Systems
		on-potable fire protection systems.
20.01	Installs non-potable fire protection systems.	C6b Specialty Piping Systems
20.02	Tests non-potable fire protection systems.	C6b Specialty Piping Systems
20.03	Services non-potable fire protection systems.	C6b Specialty Piping Systems
Task	21 - Installs, tests and services fi	ow-through fire protection systems.
21.01	Installs non-potable fire protection	C6b Specialty Piping Systems
	systems.	
21.02	Tests non-potable fire protection systems.	C6b Specialty Piping Systems
21.03	Services non-potable fire protection systems.	C6b Specialty Piping Systems
Tecl	22 Installs to the and some	ten duine eveteme
	22 - Installs, tests and services s	C6b Specialty Piping Systems
22.01	Installs piping and equipment for standpipe systems.	
22.02	Tests standpipe systems.	C6b Specialty Piping Systems

RSOS Subtask		Manitoba Unit(s)
22.03	Services standpipe systems.	C6b Specialty Piping Systems
Task	23 - Installs, tests and services s	pecialized systems.
23.01	Installs piping for specialized systems.	D5a Specialized Systems II (includes fuel systems, medical gas systems)
23.02	Installs equipment and components for specialized systems.	D5a Specialized Systems II (includes fuel systems, medical gas systems)
23.03	Tests specialized systems.	D5a Specialized Systems II (includes fuel systems, medical gas systems)
23.04	Services specialized systems.	D5a Specialized Systems II (includes fuel systems, medical gas systems)
Task	24 - Installs, tests and services p	rocess piping systems.
24.01	Installs piping for process piping systems.	D6a Process Piping
24.02	Installs equipment and components for process piping systems.	D6a Process Piping
24.03	Tests process piping systems.	D6a Process Piping
24.04	Services process piping systems.	D6a Process Piping



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