

Tool and Die Maker RSOS (2019) Subtask-to-Unit Comparison

	RSOS Subtask	Manitoba Unit(s)
Task 1	- Performs safety-related functions.	
1.01	Maintains safe work environment.	A1 Trade Safety Awareness,
		A2 Safety
		A13 Introduction to Welding
		B12 Introduction to Grinding Machines
		B13 Computer Numerical Control (CNC) I Machine – Tools
		C6 Basic Die Making (Theory)
4.00	Here were all and a discount in the second	C7 Basic Die Making (Practical)
1.02	Uses personal protective equipment	A1 Trade Safety Awareness,
	(PPE) and safety equipment.	A2 Safety
		A13 Introduction to Welding
		B12 Introduction to Grinding Machines
		B13 Computer Numerical Control (CNC) I Machine – Tools
		C6 Basic Die Making (Theory)
4.00	Lloca baiotina littina vinaina and	C7 Basic Die Making (Practical)
1.03	Uses hoisting, lifting, rigging and	A1 Trade Safety Awareness,
	supporting equipment.	A2 Safety A5 Hoisting, Lifting and Rigging
		A3 Introduction to Welding
		B12 Introduction to Welding B12 Introduction to Grinding Machines
		B13 Computer Numerical Control (CNC) I Machine – Tools
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		Or basic bic waking (Fractical)
Task 2	l 2 - Maintains machine-tools, accessories	s and cutting tools.
2.01	Maintains machine-tools and	A8 Hand and Power Tools
	accessories.	
2.02	Maintains cutting tools.	A8 Hand and Power Tools
	-	B7 Cutting Machine Tools
	- Organizes work.	
3.01	Interprets drawings, specifications and	A3 Learning About Work
	applications.	A6 Basic Drawings
		A11 Basic Layout
		B1 Advanced Drawings
3.02	Plans project activities.	A3 Learning About Work
		A6 Basic Drawings
		A11 Basic Layout
		B1 Advanced Drawings
		C1 Basic Tool Design
	Bartamakan	
	- Performs benchwork.	A11 Pagia Layout
4.01	Performs layout.	A11 Basic Layout
		B2 Mechanical Components
4.00	Finishes works is as	C1 Basic Tool Design
4.02	Finishes workpiece.	A11 Basic Layout
		B2 Mechanical Components
4.02	Inanasta warkaisas	C1 Basic Tool Design
4.03	Inspects workpiece.	A11 Basic Layout
		B2 Mechanical Components
		C1 Basic Tool Design
Table	Linea communication and mantering	la alaminua
ı ask 5	- Uses communication and mentoring	tecnniques.

	RSOS Subtask	Manitoba Unit(s)
5.01	Uses communication techniques.	A1 Trade Safety Awareness
		A2 Safety
		A3 Learning About Work
		B1 Advanced Drawings
5.02	Uses mentoring techniques.	A1 Trade Safety Awareness
		A2 Safety
		A3 Learning About Work
		B1 Advanced Drawings
		C7 Basic Die Making (Practical) D11 Journeyperson Trainer
		DTT Journeyperson Trainer
Task (6 - Operates power saws.	
6.01	Sets up power saws.	A9 Hand and Power Tools
		B5 Power Saws
6.02	Saws straight and angle cuts.	A8 Hand and Power Tools
		B5 Power Saws
		B6 Contour Band Saws
		B7 Cutting Machine Tools
6.03	Cuts irregular shapes.	A8 Hand and Power Tools
		B5 Power Saws
		B6 Contour Band Saws
		B7 Cutting Machine Tools
Task 7	 7 - Operates drill presses.	
7.01	Sets up drill presses.	A8 Hand and Power Tools
	' '	A9 Drills and Drill Presses
7.02	Drills holes using a drill press.	A8 Hand and Power Tools
	J ,	A9 Drills and Drill Presses
7.03	Cuts countersinks, counterbores,	A8 Hand and Power Tools
	chamfers and spot faces using a drill press.	A9 Drills and Drill Presses
7.04	Performs tapping using a drill press.	A8 Hand and Power Tools
		A9 Drills and Drill Presses
		B7 Cutting Machine Tools
7.05	Finishes holes using a drill press.	A8 Hand and Power Tools
		A9 Drills and Drill Presses
Table	Omerates conventional lather	
8.01	8 - Operates conventional lathes. Sets up conventional lathes.	A13 Introduction to Conventional Lathes
0.01	Coto up conventional latiles.	A14 Basic Conventional Lathe Operation
		B9 Advanced Conventional Lathe Operation
8.02	Faces surface using a conventional	A13 Introduction to Conventional Lathes
5.52	lathe.	A14 Basic Conventional Lathe Operation
		B9 Advanced Conventional Lathe Operation
8.03	Turns internal and external surfaces	A13 Introduction to Conventional Lathes
	using conventional lathes.	A14 Basic Conventional Lathe Operation
]	B9 Advanced Conventional Lathe Operation
8.04	Creates holes using conventional	A13 Introduction to Conventional Lathes
	lathes.	A14 Basic Conventional Lathe Operation
		B9 Advanced Conventional Lathe Operation
	9 - Operates conventional milling machine	
9.01	Sets up conventional milling machines.	A16 Introduction to Milling Machines B11 Conventional Milling Machine Operation
9.02	Mills surfaces using conventional milling	A16 Introduction to Milling Machines
J.UZ	machines.	B11 Conventional Milling Machine Operation
9.03	Creates holes and hole features using	A16 Introduction to Milling Machines
3.30	conventional milling machines.	B11 Conventional Milling Machine Operation
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Task '	10 - Operates grinding machines.	
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	RSOS Subtask	Manitoba Unit(s)
10.01	Sets up grinding machines.	B12 Introduction to Grinding Machines
		C5 Grinding Operations I
		D6 Grinding Operations II
10.02	Grinds flat surfaces using a surface	B12 Introduction to Grinding Machines
	grinder.	C5 Grinding Operations I
10.00	Crindo profiles	D6 Grinding Operations II
10.03	Grinds profiles.	B12 Introduction to Grinding Machines
		C5 Grinding Operations I D6 Grinding Operations II
10.04	Grinds internal and external cylindrical	B12 Introduction to Grinding Machines
10.01	and tapered surfaces.	C5 Grinding Operations I
		D6 Grinding Operations II
10.05	Grinds tools and cutters.	B7 Cutting Machine Tools
		B12 Introduction to Grinding Machines
		C5 Grinding Operations I
		D6 Grinding Operations II
10.06	Finishes holes using a honing machine.	B7 Cutting Machine Tools
		B12 Introduction to Grinding Machines C5 Grinding Operations I
		D6 Grinding Operations II
		Do Chinding Operations in
Task 1	1 - Operates computer numerical contro	ol (CNC) machines.
11.01	Performs CNC programming.	B13 Computer Numerical Control (CNC) Machine I – Tools
		C8 Computer Numerical Control (CNC) II – Program Code
		D5 Computer Numerical Control (CNC) III – Operation
11.02	Inputs program data into control	B13 Computer Numerical Control (CNC) Machine I – Tools
	memory.	C8 Computer Numerical Control (CNC) II – Program Code
44.00		D5 Computer Numerical Control (CNC) III – Operation
11.03	Establishes workpiece datum.	B13 Computer Numerical Control (CNC) Machine I – Tools
		C8 Computer Numerical Control (CNC) II – Program Code D5 Computer Numerical Control (CNC) III – Operation
11.04	Verifies program.	B13 Computer Numerical Control (CNC) Machine I – Tools
11.04	vermes program.	C8 Computer Numerical Control (CNC) II – Program Code
		D5 Computer Numerical Control (CNC) III – Operation
11.05	Monitors machining processes*.	B13 Computer Numerical Control (CNC) Machine I – Tools
		C8 Computer Numerical Control (CNC) II – Program Code
		D5 Computer Numerical Control (CNC) III – Operation
Tools 1	2. Operator electrical discharge machi	nee (EDM)
12.01	2 - Operates electrical discharge machine Determines flushing methods.	A7 Fluids and Coolants
12.02	Sets cutting conditions.	B13 Computer Numerical Control (CNC) Machine I – Tools
12.02	Octo outting conditions.	C8 Computer Numerical Control (CNC) II – Program Code
		D5 Computer Numerical Control (CNC) III – Operation
-	3 - Heat treats materials.	
13.01	Selects heat treating processes.	B3 Heat Treatment
13.02	Hardens materials.	B3 Heat Treatment
13.03	Tempers materials.	B3 Heat Treatment
13.04	Anneals materials.	B3 Heat Treatment
13.05	Normalizes materials.	B3 Heat Treatment B3 Heat Treatment
13.06	Case hardens materials.	DO FIGAL FIGALITIES
Task 1	4 - Tests heat treated materials.	
14.01	Performs visual inspection.	B3 Heat Treatment
14.02	Performs hardness test.	B3 Heat Treatment
	5 - Performs production tool design.	
15.01	Identifies production tool requirements.	B8 Precision Measurement II
		B1 Advanced Drawings
		C6 Basic Die Making (Theory)

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		C7 Basic Die Making (Practical)
15.02	Prepares shop sketches.	B8 Precision Measurement II
		B1 Advanced Drawings
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
15.03	Determines production tool material	B8 Precision Measurement II
	specifications and engineered	B1 Advanced Drawings
	components.	C6 Basic Die Making (Theory)
15.04	Dranaras information for designing or	C7 Basic Die Making (Practical) B8 Precision Measurement II
15.04	Prepares information for designing or drafting.	B1 Advanced Drawings
	draiting.	C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		C. Duois Dio maning (Francis)
Task 1	6 - Develops prototype.	
16.01	Selects prototyping technique and	B8 Precision Measurement II
	materials.	C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory) D10 Jigs and Fixtures (Practical)
16.02	Fabricates prototype components.	B8 Precision Measurement II
10.02	abricates prototype components.	C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
16.03	Assembles prototype components.	B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory) D10 Jigs and Fixtures (Practical)
16.04	Inspects prototypes.	B8 Precision Measurement II
10.04	mapedia prototypea.	C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
16.05	Proves out prototypes.	B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical) D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
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Task 1	7 - Fits and assembles production tools	S.
17.01	Verifies dimensions of production tool	B8 Precision Measurement II
	components.	C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
17.00	Dorformo productios tool coordi.	D10 Jigs and Fixtures (Practical)
17.02	Performs production tool assembly.	B8 Precision Measurement II

	RSOS Subtask	Manitoba Unit(s)
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
17.03	Sets production tool timing.	C6 Basic Die Making (Theory)
	·	C7 Basic Die Making (Practical)
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
	8 - Proves out production tools.	Add Davids a Marrows and
18.01	Sets up production tools.	A11 Precision Measurement I
		B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
40.00	Madfine and after a state fall	D10 Jigs and Fixtures (Practical)
18.02	Verifies production part material.	A11 Precision Measurement I
		B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory) D10 Jigs and Fixtures (Practical)
18.03	Develops blank/strip.	A11 Precision Measurement I
10.03	Develops blattivistrip.	B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
18.04	Cycles equipment with production tools.	A11 Precision Measurement I
		B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
18.05	Evaluates production part.	A11 Precision Measurement I
5.55	Transca brandenen kenn	B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System
		D7 Advanced Die Making (Theory)
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	RSOS Subtask	Manitoba Unit(s)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
18.06	Checks production tool for damage.	
	-	A11Precision Measurement I
		B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
40.0=		D10 Jigs and Fixtures (Practical)
18.07	Modifies production tools to enhance	A11Precision Measurement I
	productivity.	B8 Precision Measurement II
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Triedly)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
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Task 1	9 - Repairs and maintains production to	pols.
19.01	Identifies condition of production tools.	A9 Hand and Power Tools
	•	B7 Cutting Machine Tools
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
19.02	Identifies repair procedures.	A9 Hand and Power Tools
		B7 Cutting Machine Tools
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
19.03	Adjust production tool components.	A9 Hand and Power Tools
. 5.55		B7 Cutting Machine Tools
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing
		D4 The Coordinate Measuring System
		D7 Advanced Die Making (Theory)
		D8 Advanced Die Making (Practical)
		D9 Jigs and Fixtures (Theory)
		D10 Jigs and Fixtures (Practical)
19.04	Reconditions production tool	A9 Hand and Power Tools
	components.	B7 Cutting Machine Tools
		C6 Basic Die Making (Theory)
		C7 Basic Die Making (Practical)
		D1 Geometric Dimensioning and Tolerancing

RSOS Subtask	Manitoba Unit(s)
	D4 The Coordinate Measuring System
	D7 Advanced Die Making (Theory)
	D8 Advanced Die Making (Practical)
	D9 Jigs and Fixtures (Theory)
	D10 Jigs and Fixtures (Practical)



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