

# NOVA SCOTIA PROGRAM OF STUDY CABINETMAKER

Based on the Red Seal Occupational Standard

# Nova Scotia Apprenticeship Program of Study

Cabinetmaker

#### Acknowledgements

The Nova Scotia Apprenticeship Agency (Agency) wishes to acknowledge the contributions of trade advisory committee members, tradespersons, industry establishments, professional associations, labour organizations, training providers, government departments and agencies, and all others who contributed to this publication.

Special thanks are offered to the following representatives who contributed greatly to the original draft of the standard and provided expert advice throughout its development.

Regan Brunette

Jim Cripps Cripps and Sons Woodworking

Sam Cripps and Sons Woodworking

# **Table of Contents**

Acknowledgements	4
Level Structure	6
Program Content (Overview)	7
2022 Occupational Standard Sub-task to Learning Module Comparison	14

# **Level Structure**

#### Level 1

Code	Self-directed Learning Modules	Code	Self-directed Learning Modules
CMK-100	Mentoring I	CMK-115	Drawings, Layout and Planning
CMK-105	Safety	CMK-120	Machining
CMK-110	Tools and Equipment	CMK-125	Cabinet Making I

#### Level 2

Code	Self-directed Learning Modules	Code	Self-directed Learning Modules
CMK-200	Jigs, Templates and Prototypes	CMK-215	Finishing
CMK-205	Laminating	CMK-220	On-Site Installation
CMK-210	Cabinet Making II		

#### Level 3

Code	Self-directed Learning Modules	Code	Self-directed Learning Modules
CMK-300	Automated and Computer Numerical Control (CNC) Equipment	CMK-310	Veneers
CMK-305	Curved Components	CMK-315	Stairs and Balustrades

Code	Self-directed Learning Modules	Code	Self-directed Learning Modules
CMK-400	Mentoring II	CMK-410	Specialized Operations
CMK-405	Architectural Millwork	CMK-415	Program Review

# Program Content (Overview)

Code	Learning Modules		Learning Outcomes
CMK-100	Mentoring I	1	Demonstrate knowledge of effective communication practices as a learner.
		2	Demonstrate knowledge of strategies for learning skills in the workplace.
CMK-105	Safety	1	Demonstrate knowledge of personal protective equipment (PPE) and safety equipment, their applications, maintenance and procedures for use.
		2	Demonstrate knowledge of maintaining a safe work environment.
		3	Demonstrate knowledge of regulatory requirements pertaining to safety, PPE and safety equipment.
CMK-110 Tools and Equi	Tools and Equipment	1	Demonstrate knowledge of hand tools, their applications, maintenance and procedures for use.
		2	Demonstrate knowledge of portable power and pneumatic tools, their applications, maintenance and procedures for use.
		3	Demonstrate knowledge of stationary power tools and equipment, their applications, maintenance and procedures for use.
		4	Demonstrate knowledge of finishing equipment, their applications, maintenance and procedures for use.

Code	Learning Modules		Learning Outcomes
CMK-115	Drawings, Layout and Planning	1	Demonstrate knowledge of drawings and specifications and their applications.
		2	Demonstrate knowledge of procedures to interpret and extract information from drawings and specifications.
		3	Demonstrate knowledge of layout procedures.
		4	Demonstrate knowledge of planning and organizing work according to project specifications and requirements.
		5	Demonstrate knowledge of procedures to handle and store materials, supplies and products.
CMK-120	Machining	1	Demonstrate knowledge of wood and sheet materials and their characteristics.
		2	Demonstrate knowledge of joints, their characteristics and applications.
		3	Demonstrate knowledge of procedures to machine components using stationary and portable power tools.
		4	Demonstrate knowledge of procedures to perform preliminary sanding.
CMK-125	Cabinet Making I	1	Demonstrate knowledge of cabinet components, their characteristics and applications.
		2	Demonstrate knowledge of hardware, their characteristics and applications.

Code	Learning Modules		Learning Outcomes
		3	Demonstrate knowledge of adhesives and fasteners, their characteristics and applications.
		4	Demonstrate knowledge of procedures to dry-fit cabinets.

Code	Learning Modules		Learning Outcomes
CMK-200	Jigs, Templates and Prototypes	1	Demonstrate knowledge of jigs and templates, their characteristics and applications.
		2	Demonstrate knowledge of procedures to fabricate jigs and fixtures.
		3	Demonstrate knowledge of prototypes and their applications.
CMK-205	Laminating	1	Demonstrate knowledge of laminate sheets, their characteristics and applications.
		2	Demonstrate knowledge of procedures to prepare laminate sheets and substrates.
		3	Demonstrate knowledge of procedures to apply laminate sheets to substrates and perform final clean-up.
		4	Demonstrate knowledge of laminated products, and common laminating problems.
		5	Demonstrate knowledge of procedure to laminate wood and composite materials.

Code	Learning Modules		Learning Outcomes
CMK-210	CMK-210 Cabinet Making II	1	Demonstrate knowledge of procedures to assemble cabinet components in shop.
		2	Demonstrate knowledge of procedures to assemble furniture components in shop.
		3	Demonstrate knowledge of procedures to combine cabinet and furniture components into final assemblies in shop.
CMK-215 Fin	Finishing	1	Demonstrate knowledge of procedures to prepare surfaces for finishing.
		2	Demonstrate knowledge of finishing materials, their characteristics and applications
		3	Demonstrate knowledge of procedures to apply finishing materials manually.
		4	Demonstrate knowledge of procedures to spray on finishing materials.
CMK-220 On	On-Site Installation	1	Demonstrate knowledge of procedures to perform modifications and adjustments on-site prior to final installation.
		2	Demonstrate knowledge of procedures to perform on-site assembly and finalize installation of cabinets and countertops.

Code	Learning Modules		Learning Outcomes
CMK-300	Automated and Computer Numerical Control (CNC) Equipment	1	Demonstrate knowledge of automated and CNC Equipment, their applications, maintenance and procedures for use.

Code	Learning Modules		Learning Outcomes
CMK-305	Curved Components	1	Demonstrate knowledge of procedures to build forms.
		2	Demonstrate knowledge of procedures to perform curved laminating.
		3	Demonstrate knowledge of procedures to steam form wood.
CMK-310	Veneers	1	Demonstrate knowledge of veneers, their characteristics and applications.
		2	Demonstrate knowledge of procedures to prepare veneers and substrates.
		3	Demonstrate knowledge of procedures to adhere veneers to substrates.
		4	Demonstrate knowledge of procedures to perform final clean-up of veneered panels.
CMK-315	Stairs and Balustrades	1	Demonstrate knowledge of stairs and balustrades, their components, characteristics and applications.
		2	Demonstrate knowledge of procedures to lay out stair and balustrade components.
		3	Demonstrate knowledge of procedures to machine stair and balustrade components.
		4	Demonstrate knowledge of procedures to assemble stairs and balustrades.
		5	Demonstrate knowledge of procedures to install stairs and balustrades.

Level 4

Code	Learning Modules		Learning Outcomes
CMK-400	Mentoring II	1	Demonstrate knowledge of effective communication practices as a mentor.
			teaching workplace skills.
CMK-405	Architectural Millwork	Demonstrate knowledge of strategies for teaching workplace skills.  1 Demonstrate knowledge of architectural millwork components, their characteristics and applications.  2 Demonstrate knowledge of architectural fixtures, their characteristics and applications.  3 Demonstrate knowledge of procedures to assemble architectural millwork product in shop.  4 Demonstrate knowledge of procedures to install architectural millwork products or site.  5 Demonstrate knowledge of procedures to install moldings.  1 Demonstrate knowledge of solid surface materials, their characteristics and	
		2	
		3	Demonstrate knowledge of procedures to assemble architectural millwork products in shop.
		4	Demonstrate knowledge of procedures to install architectural millwork products onsite.
		5	Demonstrate knowledge of procedures to install moldings.
CMK-410	Specialized Operations	1	Demonstrate knowledge of solid surface materials, their characteristics and applications.
		2	Demonstrate knowledge of procedures to break out materials.
		3	Demonstrate knowledge of procedures to fabricate and install solid surface material.
		4	Demonstrative knowledge of decorative woodwork and applications.

Code	Learning Modules	Learning Outcomes		
		5	Demonstrate knowledge of procedures to perform woodturning.	
		6	Demonstrate knowledge of procedures to repair and refinish woodwork.	
CMK-415	Program Review	1	Demonstrate knowledge of the Occupational Standard and its relationship to the Red Seal Exam.	
		2	Demonstrate knowledge of overall comprehension of the trade in preparation for the Red Seal Exam.	

# 2022 Occupational Standard Sub-task to Learning Module Comparison

Sub-task		Learning Modules			
Task A-1 – Performs safety-related functions					
A-1.01	Maintains safe work environment	CMK-105	Safety		
A-1.02	Uses personal protective equipment (PPE) and safety equipment	CMK-105	Safety		
Task A-2 -	- Maintains tools and equipment				
A-2.01	Maintains hand, portable power and pneumatic tools and equipment	CMK-110	Tools and Equipment		
A-2.02	Maintains stationary power tools	CMK-110	Tools and Equipment		
A-2.03	Maintains automated and computer numerical control (CNC) equipment	CMK-300	Automated and Computer Numerical Control (CNC) Equipment		
A-2.04	Maintains finishing equipment	CMK-110	Tools and Equipment		
Task A-3 -	- Organizes work				
A-3.01	Interprets prints and drawings	CMK-115	Drawings, Layout and Planning		
A-3.02	Plans projects	CMK-115	Drawings, Layout and Planning		
A-3.03	Creates design	CMK-115	Drawings, Layout and Planning		
A-3.04	Performs layout of cabinets, furniture and architectural millwork	CMK-115	Drawings, Layout and Planning		
Task A-4 -	- Performs routine work practices				
A-4.01	Handles materials, supplies and products	CMK-115	Drawings, Layout and Planning		
A-4.02	Fabricates jigs and templates	CMK-200	Jigs, Templates and Prototypes		
A-4.03	Builds prototypes	CMK-200	Jigs, Templates and Prototypes		
A-4.04	Dry-fits components	CMK-125	Cabinet Making I		
A-4.05	Selects hardware	CMK-125	Cabinet Making I		
A-4.06	Selects adhesives and fasteners	CMK-125	Cabinet Making I		
Task A-5 – Uses communication and mentoring techniques					
A-5.01	Uses communication techniques	CMK-100	Mentoring I		
		CMK-400	Mentoring II		
A-5.02	Uses mentoring techniques	CMK-100	Mentoring I		
		CMK-400	Mentoring II		

Sub-task		Learning Modules			
Task B-6 – Performs machining					
B-6.01	Breaks out solid wood	CMK-120	Machining		
B-6.02	Dresses solid wood	CMK-120	Machining		
B-6.03	Shapes solid wood	CMK-120	Machining		
B-6.04	Breaks out sheet materials	CMK-120	Machining		
B-6.05	Machines sheet materials	CMK-120	Machining		
B-6.06	Machines joints	CMK-120	Machining		
B-6.07	Performs preliminary sanding	CMK-120	Machining		
Task B-7 -	Machines components using autom	nated and CI	NC equipment		
B-7.01	Sets up automated and CNC equipment	CMK-300	Automated and Computer Numerical Control (CNC) Equipment		
B-7.02	Operates automated and CNC equipment	CMK-300	Automated and Computer Numerical Control (CNC) Equipment		
Task C-8 -	Creates curved components using v	vood and co	mposite materials		
C-8.01	Builds forms	CMK-305	Curved Components		
C-8.02	Performs curved laminating	CMK-305	Curved Components		
C-8.03	Steam-forms wood	CMK-305	Curved Components		
Task D-9 -	- Laminates wood and composite ma	aterials			
D-09.01	Arranges materials for laminating	CMK-205	Laminating		
D-09.02	Applies adhesive for laminating	CMK-205	Laminating		
D-09.03	Clamps pieces together	CMK-205	Laminating		
Task D-10	- Applies veneers				
D-10.01	Selects veneers sheets	CMK-310	Veneers		
D-10.02	Prepares veneer and substrate	CMK-310	Veneers		
D-10.03	Adheres veneers to substrates	CMK-310	Veneers		
D-10.04	Performs final clean-up of veneered panels	CMK-310	Veneers		
Task D-11 – Applies laminate sheets					
D-11.01	Selects laminate sheets	CMK-205	Laminating		
D-11.02	Prepares laminate sheets and substrate	CMK-205	Laminating		
D-11.03	Adheres laminate sheets to substrates	CMK-205	Laminating		

Sub-task		Learning Modules				
D-11.04	Performs final clean-up of laminate sheets	CMK-205	Laminating			
Task E-12	Task E-12 – Assembles cabinets and furniture					
E-12.01	Assembles cabinet components	CMK-210	Cabinet Making II			
E-12.02	Assembles furniture components	CMK-210	Cabinet Making II			
E-12.03	Combines cabinet and furniture components into final assemblies	CMK-210	Cabinet Making II			
Task E-13	– Assembles architectural millwork					
E-13.01	Assembles architectural millwork components in shop	CMK-405	Architectural Millwork			
E-13.02	Assembles architectural fixtures in shop	CMK-405	Architectural Millwork			
Task F-14	<ul> <li>Prepares surface for finishing</li> </ul>					
F-14.01	Repairs imperfections	CMK-215	Finishing			
F-14.02	Prepares parts for finishing	CMK-215	Finishing			
F-14.03	Performs final sanding of surfaces	CMK-215	Finishing			
Task F-15	<ul> <li>Installs custom wood and laminate</li> </ul>	e flooring				
F-15.01	Prepares finishing materials	CMK-215	Finishing			
F-15.02	Applies finishing material manually	CMK-215	Finishing			
F-15.03	Sprays on finishing materials	CMK-215	Finishing			
Task G-16	- Modifies products to site conditio	ns				
G-16.01	Cuts access holes on site	CMK-220	On-Site Installation			
G-16.02	Scribes product to fit on site	CMK-220	On-Site Installation			
Task G-17	- Installs cabinets and countertops					
G-17.01	Performs final on-site assembly and fastening of cabinets and countertops	CMK-220	On-Site Installation			
G-17.02	Finalizes installation of cabinets and countertops	CMK-220	On-Site Installation			
Task G-18 – Installs architectural millwork products and mouldings						
G-18.01	Performs final on-site assembly and fastening of architectural millwork products	CMK-405	Architectural Millwork			
G-18.02	Installs mouldings	CMK-405	Architectural Millwork			
G-18.03	Finalizes installation of architectural millwork products and mouldings	CMK-405	Architectural Millwork			

Sub-task		Learning Modules				
Task H-19 – Builds stairs and balustrades						
H-19.01	Lays out stair and balustrade components	CMK-315	Stairs and Balustrades			
H-19.02	Machines stair and balustrade components	CMK-315	Stairs and Balustrades			
H-19.03	Assembles stairs and balustrades	CMK-315	Stairs and Balustrades			
H-19.04	Installs stairs and balustrades	CMK-315	Stairs and Balustrades			
Task H-20	Task H-20 – Works with solid surface material and custom countertops					
H-20.01	Breaks out materials	CMK-410	Specialized Operations			
H-20.02	Fabricates solid surface material	CMK-410	Specialized Operations			
H-20.03	Installs solid surface material	CMK-410	Specialized Operations			
Task H-21 – Creates decorative woodwork						
H-21.01	Performs marquetry (NOT COMMON CORE)	CMK-410	Specialized Operations			
H-21.02	Performs carving (NOT COMMON CORE)	CMK-410	Specialized Operations			
H-21.03	Performs woodturning	CMK-410	<b>Specialized Operations</b>			
Task H-22 – Restores woodwork						
H-22.01	Repairs woodwork for restoration purposes	CMK-410	Specialized Operations			
H-22.02	Refinishes woodwork	CMK-410	Specialized Operations			