

# NOVA SCOTIA PROGRAM OF STUDY CABINETMAKER

Based on the Red Seal Occupational Standard

# Nova Scotia Apprenticeship Program of Study

Cabinetmaker

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# **Level Structure**

#### Level 1

Code	Self-directed Learning Modules	Code	Self-directed Learning Modules
MENT-700	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
MENT-701	Mentoring II	CMK-410	Specialized Operations
CMK-405	Architectural Millwork	CMK-415	Program Review

# Program Content (Overview)

Code	Learning Modules		Learning Outcomes
MENT-700	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 Equipment		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	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-S		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.
	Equipment		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	perform curved laminating.  3 Demonstrate knowledge of procedures to steam form wood.  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	
		2	
		3	machine stair and balustrade
		4	
		5	

Level 4

Code	Learning Modules		Learning Outcomes
MENT-701	Mentoring II	1	Demonstrate knowledge of effective communication practices as a mentor.  Demonstrate knowledge of strategies for teaching workplace skills.
CMK-405	MK-405 Architectural Millwork	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 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	in  1 De	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.	
		c	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	MENT-700	Mentoring I		
		MENT-701	Mentoring II		
A-5.02	Uses mentoring techniques	MENT-700	Mentoring I		

Sub-task		Learning Modules			
		MENT-701	Mentoring II		
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 auto	mated 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	wood 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 n	naterials			
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	<ul><li>Applies veneers</li></ul>				
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		

Sub-task		Learning Modules				
D-11.03	Adheres laminate sheets to substrates	CMK-205	Laminating			
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	<ul> <li>Assembles architectural millworl</li> </ul>	k				
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 lamina</li> </ul>	te 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 conditions						
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						

Sub-task		Learning Modules			
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		
Task H-19	<ul> <li>Builds stairs and balustrades</li> </ul>				
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	- Works with solid surface materia	al 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	Specialized Operations		
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		