



NOVA SCOTIA  
**APPRENTICESHIP**  
AGENCY

# **NOVA SCOTIA**

## **PROGRAM OF STUDY**

### **CONSTRUCTION CRAFT WORKER**

Based on the Red Seal Occupational Standard



# **Nova Scotia Apprenticeship Program of Study**

## **Construction Craft Worker**

## Acknowledgements

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## Program Overview

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### Level 1

Code	Self-directed Learning Modules	Code	Self-directed Learning Modules
CCW-100	Workplace Mentoring I	CCW-130	Site Work
CCW-105	Safety	CCW-135	Excavation, Backfill and Compaction
CCW-110	Tools and Equipment	CCW-140	Enclosures and Fencing
CCW-115	Drawings and Documentation	CCW-145	Masonry Work
CCW-120	Safety Watches	CCW-150	Traffic Control
CCW-125	Rigging, Hoisting, Lifting and Access Equipment		

### Level 2

Code	Self-directed Learning Modules	Code	Self-directed Learning Modules
CCW-200	Workplace Mentoring II	CCW-215	Utilities and Pipeline
CCW-205	Formwork	CCW-220	Roadwork
CCW-210	Concrete Work	CCW-225	Program Review

## Program Structure

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### Level 1

Code	Learning Modules		Learning Outcomes
CCW-100	Mentoring I	1	Demonstrate knowledge of effective communication practices as a learner.
		2	Demonstrate knowledge of strategies for learning skills in the workplace.
CCW-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.
CCW-110	Tools and Equipment	1	Demonstrate knowledge of hand tools, their applications, maintenance and procedures for use.
		2	Demonstrate knowledge of power tools, their applications, maintenance and procedures for use.
		3	Demonstrate knowledge of powder-actuated tools and their applications.
		4	Demonstrate knowledge of stationary tools, their applications, maintenance and procedures for use.

Code	Learning Modules	Learning Outcomes
CCW-115	Drawings and Documentation	5 Demonstrate knowledge of sandblasters, their applications, maintenance and procedures for use.
		6 Demonstrate knowledge of mobile equipment, their applications, maintenance and procedures for use.
		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 procedures to establish grades and elevations.
CCW-120	Safety Watches	4 Demonstrate knowledge of trade documentation and its use.
		1 Demonstrate knowledge of safety watch requirements and procedures.
CCW-125	Rigging, Hoisting, Lifting and Access Equipment	1 Demonstrate knowledge of rigging equipment, their applications, maintenance and procedures for use.
		2 Demonstrate knowledge of hoisting and lifting equipment, their applications, maintenance and procedures for use.
		3 Demonstrate knowledge of access equipment, their applications, maintenance and procedures for use.
		4 Demonstrate knowledge of regulatory requirements pertaining to rigging, hoisting, lifting and access equipment.



Code	Learning Modules	Learning Outcomes	
CCW-130	Site Work	1	Demonstrate knowledge of procedures to clear and prepare sites.
		2	Demonstrate knowledge of procedures to handle and store construction materials.
		3	Demonstrate knowledge of procedures to install membranes and insulating materials.
		4	Demonstrate knowledge of procedures to perform onsite general housekeeping and maintenance activities.
CCW-135	Excavation, Backfill and Compaction	1	Demonstrate knowledge of excavating, backfilling and compacting.
		2	Demonstrate knowledge of precautions to be taken while performing excavation, backfill and compaction.
CCW-140	Enclosures and Fencing	1	Demonstrate knowledge of hoarding/enclosures and fencing and their applications.
		2	Demonstrate knowledge of procedures to erect and dismantle hoarding/enclosures.
		3	Demonstrate knowledge of procedures to install permanent and temporary fencing.
CCW-145	Masonry Work	1	Demonstrate knowledge of masonry materials and products and their applications.
		2	Demonstrate knowledge of procedures to mix mortars and grouts.

Code	Learning Modules	Learning Outcomes	
CCW-150	Traffic Control	3	Demonstrate knowledge of procedures to prepare for and support masonry work.
		1	Demonstrate knowledge of worksite traffic control requirement and procedures.

## Level 2

Code	Learning Modules	Learning Outcomes	
CCW-200	Mentoring II	1	Demonstrate knowledge of effective communication practices as a mentor.
		2	Demonstrate strategies for teaching workplace skills.
CCW-205	Formwork	1	Demonstrate knowledge of concrete formwork, its components and applications.
		2	Demonstrate knowledge of procedures to install and inspect formwork and shoring.
		3	Demonstrate knowledge of expansion, control and isolation joints and their application.
		4	Demonstrate knowledge of procedures to remove and maintain formwork.
CCW-210	Concrete Work	1	Demonstrate knowledge of concrete, its properties, characteristics and applications.
		2	Demonstrate knowledge of concrete components and mixtures.

Code	Learning Modules	Learning Outcomes
CCW-215		3 Demonstrate knowledge of procedures to place, finish and cure concrete.
		4 Demonstrate knowledge of procedures to modify concrete.
		5 Demonstrate knowledge of procedures to apply grout, epoxies and caulking.
	Utilities and Pipeline	1 Demonstrate knowledge of utilities and pipeline, their components and applications.
		2 Demonstrate knowledge of procedures to install pipe and components for water and sewer systems.
		3 Demonstrate knowledge of procedures to test for and repair water breaks and leaks.
		4 Demonstrate knowledge of environmental considerations and procedures for constructing right of ways.
		5 Demonstrate knowledge of pipeline construction and maintenance.
CCW-220	Road Work	1 Demonstrate knowledge of procedures to place, lay or spread road surface materials.
		2 Demonstrate knowledge of procedures to repair road surfaces.
		3 Demonstrate knowledge of culverts, barriers and signage, their applications and procedures for use.

Code	Learning Modules	Learning Outcomes	
CCW-225	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.

Something to discuss with Donna is that almost everything in level 2 is non-mandatory, approximately 7 out of 32 trade skills.

Maybe we could have everyone have the mandatory safety, routine work practices, site prep, etc. required by all and then require all skills signed off in one environment – masonry work or utilities and pipeline or concrete and formwork or roadwork?

## 2015 Occupational Standard Sub-task to Learning Module Comparison

Sub-task		Learning Modules	
<b>Task A-1 – Performs Safety Related Functions</b>			
A-1.01	Maintains safe work environment	CCW-105	Safety
A-1.02	Uses personal protective equipment (PPE) and safety equipment	CCW-105	Safety
<b>Task A-2 – Uses and maintains tools and equipment</b>			
A-2.01	Maintains hand, power and powder-actuated tools.	CCW-110	Tools and Equipment
A-2.02	Uses rigging and hoisting equipment.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
A-2.03	Uses stationary equipment.	CCW-110	Tools and Equipment
A-2.04	Uses sandblaster.	CCW-110	Tools and Equipment
A-2.05	Uses mobile equipment.	CCW-110	Tools and Equipment
<b>Task A-3 – Organizes work</b>			
A-3.01	Uses documentation.	CCW-115	Drawings and Documentation
A-3.02	Communicates with others.	CCW-100	Mentoring I
		CCW-200	Mentoring II
<b>Task A-4 – Performs routine work practices</b>			
A-4.01	Handles construction materials.	CCW-130	Site Work
A-4.02	Performs site housekeeping and maintenance.	CCW-130	Site Work
A-4.03	Erects hoarding/enclosures.	CCW-140	Enclosures and Fencing
A-4.04	Installs membranes.	CCW-130	Site Work
A-4.05	Installs insulating materials.	CCW-130	Site Work
A-4.06	ishes grades and elevations.	CCW-115	Drawings and Documentation
		N/A	Integrated throughout
A-4.07	Performs traffic control.	CCW-150	Traffic Control
A-4.08	Installs permanent and temporary fencing.	CCW-140	Enclosures and Fencing
<b>Task B-5 – Prepares site</b>			
B-5.01	Clears site.	CCW-130	Site Work

Sub-task		Learning Modules	
B-5.02	Sets up site facilities.	CCW-130	Site Work
B-5.03	Assists in installation of pilings.	CCW-130	Site Work
B-5.04	Builds access and egress roads.	CCW-130	Site Work
<b>Task B-6 – Performs ground work</b>			
B-6.01	Locates underground utilities.	CCW-135	Excavation, Backfill and Compaction
B-6.02	Performs excavation.	CCW-135	Excavation, Backfill and Compaction
B-6.03	Installs excavation shoring.	CCW-135	Excavation, Backfill and Compaction
B-6.04	Performs backfill and compaction.	CCW-135	Excavation, Backfill and Compaction
<b>Task B-7 – Services site</b>			
B-7.01	Addresses suspected hazardous materials.	CCW-130	Site Work
B-7.02	Controls water runoff.	CCW-130	Site Work
B-7.03	Sets up temporary lighting.	CCW-130	Site Work
B-7.04	Sets up generators and compressors.	CCW-130	Site Work
B-7.05	Performs site restoration.	CCW-130	Site Work
B-7.06	Manages tool crib.	CCW-130	Site Work
B-7.07	Recycles materials.	CCW-130	Site Work
<b>Task B-8 – Performs basic demolition</b>			
B-8.01	Cuts materials.	CCW-125	Site Work
B-8.02	Dismantles existing structures and components.	CCW-125	Site Work
<b>Task B-9- Performs safety watches</b>			
B-9.01	Monitors hazardous gases.	CCW-120	Safety Watches
B-9.02	Performs fire watch.	CCW-120	Safety Watches

Sub-task		Learning Modules	
B-9.03	Performs bottle watch.	CCW-120	Safety Watches
B-9.04	Performs confined space watch.	CCW-120	Safety Watches
B-9.05	Monitors heaters.	CCW-120	Safety Watches
<b>Task C-10 – Uses scaffolding</b>			
C-10.01	Erects scaffolding.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
C-10.02	Inspects scaffolding.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
C-10.03	Maintains scaffolding.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
C-10.04	Tends to scaffold erectors.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
C-10.05	Dismantles scaffolding.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
<b>Task C-11 – Uses Access Equipment</b>			
C-11.01	Uses ladders.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
C-11.02	Uses power-elevated work platforms.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
C-11.03	Inspects access equipment.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
C-11.04	Maintains access equipment.	CCW-125	Rigging, Hoisting, Lifting and Access Equipment
<b>Task D-12 – Forms concrete</b>			
D-12.01	Installs formwork and shoring.	CCW-205	Formwork
D-12.02	Inspects assembled formwork.	CCW-205	Formwork
D-12.03	Dismantles formwork.	CCW-205	Formwork
D-12.04	Maintains formwork.	CCW-205	Formwork
<b>Task D-13 – Places and finishes concrete</b>			
D-13.01	Mixes concrete.	CCW-210	Concrete Work
D-13.02	Transports concrete on site.	CCW-210	Concrete Work
D-13.03	Places concrete.	CCW-210	Concrete Work
D-13.04	Installs components in concrete.	CCW-210	Concrete Work
D-13.05	Assists with finishing concrete.	CCW-210	Concrete Work
D-13.06	Controls concrete curing process.	CCW-210	Concrete Work

Sub-task		Learning Modules	
<b>Task D-14 – Modifies concrete</b>			
D-14.01	Drills/cores concrete.	CCW-210	Concrete Work
D-14.02	Prepares concrete for resurfacing.	CCW-210	Concrete Work
D-14.03	Performs concrete repair and refinishing.	CCW-210	Concrete Work
D-14.04	Creates expansion, control and isolation joints.	CCW-205	Formwork
		CCW-210	Concrete Work
<b>Task D-15 – Places/applies grout, epoxies and caulking</b>			
D-15.01	Places/applies grout.	CCW-210	Concrete Work
D-15.02	Places/applies epoxies.	CCW-210	Concrete Work
D-15.03	Applies caulking.	CCW-210	Concrete Work
<b>Task E-16 – Prepares for masonry work</b>			
E-16.01	Sets up masonry materials.	CCW-145	Masonry Work
E-16.02	Mixes mortars and grouts.	CCW-145	Masonry Work
<b>Task E-17 – Tends to bricklayers</b>			
E-17.01	Cuts masonry units.	CCW-145	Masonry Work
E-17.02	Installs lintels and rough bucks.	CCW-145	Masonry Work
E-17.03	Washes masonry units.	CCW-145	Masonry Work
E-17.04	Installs refractory materials.	CCW-145	Masonry Work
E-17.05	Uses fireproofing materials.	CCW-145	Masonry Work
<b>Task F-18 – Installs utility piping for water and sewer installations</b>			
F-18.01	Installs pipe for water systems.	CCW-215	Utilities and Pipeline
F-18.02	Installs pipe for sewer systems.	CCW-215	Utilities and Pipeline
F-18.03	Installs catch basins and manholes.	CCW-215	Utilities and Pipeline
F-18.04	Modifies existing pipe.	CCW-215	Utilities and Pipeline
F-18.05	Assists with testing water and sewer lines.	CCW-215	Utilities and Pipeline
<b>Task F-19 – Performs pipeline activities</b>			
F-19.01	Constructs right of ways.	CCW-215	Utilities and Pipeline
F-19.02	Performs pipeline installation.	CCW-215	Utilities and Pipeline
F-19.03	Performs pipeline maintenance.	CCW-215	Utilities and Pipeline
<b>Task G-20 – Installs road surface materials</b>			
G-20.01	Places road surface materials.	CCW-220	Roadwork
G-20.02	Repairs road surfaces.	CCW-220	Roadwork



Sub-task		Learning Modules	
<b>Task G-21 – Installs roadwork components</b>			
G-21.01	Installs barriers.	CCW-220	Roadwork
G-21.02	Installs road markings and signs.	CCW-220	Roadwork
G-21.03	Installs culverts.	CCW-220	Roadwork