Carpenter

Guide to Course Content

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Recognition:
To promote transparency and consistency, portions of this document has been adapted from the 2013 Carpenter National Occupational Analysis (Employment and Social Development Canada).

A complete version of the Occupational Standard can be found at www.red-seal.ca

STRUCTURE OF THE GUIDE TO COURSE CONTENT

To facilitate understanding of the occupation, this guide to course content contains the following sections:

Description of the Carpenter trade: an overview of the trade's duties and training requirements.

Essential Skills Summary: an overview of how each of the nine essential skills is applied in this trade.

Elements of harmonization of apprenticeship training: includes adoption of Red Seal trade name, number of levels of apprenticeship, total training hours (on-the-job and in-school) and consistent sequencing of technical training content. Implementation for harmonization took place progressively. Level one was implemented in 2016/2017, level two 2017/2018, level three 2018/2019, and level four in 2019/2020.

Task Matrix: a chart which outlines graphically the major work activities, tasks and sub-tasks of this standard detailing the essential skills and the level of training where the content is covered.

Block: the largest division within the standard that is comprised of a distinct set of trade activities.

Task: distinct actions that describe the activities within a major work activity.

Sub-task: distinct actions that describe the activities within a task.

Training Profile Chart: a chart which outlines the model for Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) technical training.

Technical Training Course Content for the Carpenter trade: a chart which outlines the model for SATCC technical training sequencing. For the harmonized level of training, a cross reference to the Harmonized apprenticeship technical training sequencing, at the learning outcome level, is provided.

Appendix A: Post Harmonization Training Profile Chart: a chart which outlines the finalized model for SATCC technical training sequencing with a cross reference to the Harmonized apprenticeship technical training sequencing, at the topic level.

DESCRIPTION OF THE CARPENTER TRADE

Carpenters construct, renovate and repair buildings and structures made of wood and other materials.

They can work for a wide array of employers, including new home builders and renovation firms, construction firms, building owners, property managers and tenants, building developers and government departments. Some carpenters are union members and a significant number are self-employed.

While the scope of the carpenter trade includes many aspects of building construction, a growing number of carpenters work for contractors who specialize in such areas of trade practice as concrete forming, framing, finishing, interior systems and renovation. Carpenters are employed in a variety of job environments, including houses under construction or renovation, ICI and infrastructure projects, and plants that pre-fabricate buildings. They must be prepared to work in a variety of working environments.

Safety is of prime importance to all carpenters. In addition to typical risks of injury resulting from slips and falls, falling objects and the use of hand and power tools, carpenters must be aware of constantly changing work surroundings to mitigate the chance of injury to self and others. The proper use of personal protective equipment (PPE) and related training is very important to carpenters regardless of their location of work. Risk/hazard assessments prior to performing tasks are necessary and important.

Some important competencies of a carpenter are good knowledge of mathematics, the ability to use metric and imperial measurements, an understanding of building science, communication and problem solving skills, and the ability to work independently or as part of a team. Other skills present in a competent carpenter are the ability to work at heights, the ability to stand or kneel for long periods of time, manual dexterity and good balance. Carpentry is a physically demanding occupation requiring the lifting of heavy tools and materials. Journeyperson carpenters are expected to mentor apprentices given the hands-on nature of the trade.

Training Requirements: To graduate from each level of the apprenticeship program, an apprentice must successfully complete the required technical training and compile enough on-the-job experience to total at least 1800 hours each year. Total trade time required is 7200 hours and at least 4 years in the trade.

There are four levels of technical training for Carpenter delivered by Saskatchewan Polytechnic at the Moose Jaw and Prince Albert Campuses. Certain training sessions are being offered by Saskatchewan Polytechnic at the Saskatoon and Regina Campuses:

Level One: 7 weeks
Level Two: 7 weeks
Level Three: 7 weeks
Level Four: 7 weeks

The information contained in this document details the technical training delivered for each level of apprenticeship. An apprentice spends approximately 15% of their apprenticeship term in a technical training institute learning the technical and theoretical aspects of the trade. The hours and percentages of technical and practical training may vary according to class needs and progress.

The content of the technical training components is subject to change without notice.

Entrance Requirements for Apprenticeship Training

Your grade twelve transcripts (with no modified classes) or GED 12 is your guarantee that you meet the educational entrance requirements for apprenticeship in Saskatchewan. In fact, employers prefer and recommend apprentices who have completed high school. This ensures the individual has all of the necessary skills required to successfully complete the apprenticeship program, and receive journeyperson certification.

Individuals with “modified” or “general” classes in math or science do not meet our entry requirements. These individuals are required to take an entrance assessment prescribed by the SATCC.

English is the language of instruction in all apprenticeship programs and is the common language for business in Saskatchewan. Before admission, all apprentices and/or “upgraders” must be able to understand and communicate in the English language. Applicants whose first language is not English must have a minimum Canadian Language Benchmark Assessment of six (CLB6).

Note: A CLB assessment is valid for a one-year period from date of issue.

Designated Trade Name	**Math Credit** at the Indicated Grade Level❶	**Science Credit** at Grade Level
Carpenter	Grade 10	Grade 10

❶ - (One of the following) WA – Workplace and Apprenticeship; or F – Foundations; or P – Pre-calculus, or a Math at the indicated grade level (Modified and General Math credits are not acceptable.).

*Applicants who have graduated in advance of 2015-2016, or who do not have access to the revised Science curricula will require a Science at the minimum grade level indicated by trade.

For information about high school curriculum, including Math and Science course names, please see: http://www.curriculum.gov.sk.ca/#

Individuals not meeting the entrance requirements will be subject to an assessment and any required training

ESSENTIAL SKILLS SUMMARY

Essential skills are needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change.

Through extensive research, the Government of Canada and other national and international agencies have identified and validated nine essential skills. These skills are used in nearly every occupation and throughout daily life in different ways.

A series of CCDA-endorsed tools have been developed to support apprentices in their training and to be better prepared for a career in the trades. The tools can be used independently or with the assistance of a tradesperson, trainer, employer, teacher or mentor to:

- understand how essential skills are used in the trades;
- learn about individual essential skills strengths and areas for improvement; and
- improve essential skills and increase success in an apprenticeship program.

The tools are available online or for order at: www.esdc.gc.ca/eng/jobs/les/profiles/index.shtml

The application of these skills may be described throughout this document within the skills and knowledge which support each sub-task of the trade. The most important essential skills for each sub-task have also been identified. The following are summaries of the requirements in each of the essential skills, taken from the essential skills profile. A link to the complete essential skills profile can be found at www.red-seal.ca.

READING

Carpenters need to read work orders, invoices and brief notes from co-workers. They also read and interpret technical documents, drawings, specifications, building codes, regulations, bylaws and standards. Carpenters read notices, bulletins and newsletters to stay up-to-date on workplace issues as well as trade journals and website articles to keep current on industry trends.

DOCUMENT USE

Carpenters scan documents, products and signs for symbols and icons to identify workplace hazards. They complete checklists and forms by checking boxes and entering data, such as dates, times and quantities. They locate data in a variety of tables. Carpenters complete a variety of documents such as log books, work orders and building permit applications.

WRITING

Carpenters write reminders and notes to themselves, customers and co-workers. They write comments in field books, on forms and on schedules about obstacles such as overhead power lines for example. They may also write accident or incident reports depending on the jurisdiction.

ORAL COMMUNICATION

Carpenters speak with suppliers to learn about products, prices and delivery schedules. They talk with co-workers and other tradespeople about timelines, procedures, expectations and other work-related matters. They speak with safety and building inspectors, manufacturer representatives and customers, and they participate in worksite meetings. Carpenters may also provide detailed instructions to co-workers and apprentices.

NUMERACY

Carpenters must have a thorough understanding of basic arithmetic, geometry and trigonometry. They often work with both the metric and the imperial systems of measurement. They perform calculations and apply formulas to determine offsets, elevations and grades. Furthermore, they use formulas to determine area, volume and quantities, and they calculate runs and rises to build stairs and rafters. Carpenters estimate material and time requirements to complete a project.

THINKING

Carpenters decide on the order of tasks based on priorities and delays. They consult with coworkers and other tradespeople when they encounter problems to exchange ideas and select the best approach. They choose tools, methods and products for projects based on project specifications, building code requirements and the availability of products, time and labour. Carpenters evaluate the safety of a work site and potential hazards.

WORKING WITH OTHERS

Carpenters work in pairs some of the time as this promotes efficiency and productivity. They also work with apprentices some of the time to direct, mentor and monitor their work. Carpenters may also work alone when the task may be performed unassisted. Carpenters are often leaders of the construction team, working together on a daily basis with other trades, forepersons, suppliers and engineers to complete the job through combined effort and organized co-operation.

DIGITAL TECHNOLOGY

Carpenters use digital survey equipment, calculators and portable electronic devices to complete numeracy-related tasks such as calculating material requirements. They may use a variety of software such as word processing, spreadsheets, databases, accounting, communication and estimating software. They access information online from suppliers, manufacturers, unions and associations. They may also use the Internet to access training courses and seminars.

CONTINUOUS LEARNING

There is a requirement for ongoing learning to maintain current knowledge of changing codes, regulations, standards and materials for new construction and renovations. It is also very important to apply new skills and methods emerging due to technological and environmental advancements.

ELEMENTS OF HARMONIZATION FOR APPRENTICESHIP TRAINING

At the request of industry, the Harmonization Initiative was launched in 2013 to *substantively align* apprenticeship systems across Canada by making training requirements more consistent in the Red Seal trades. Harmonization aims to improve the mobility of apprentices, support an increase in their completion rates and enable employers to access a larger pool of apprentices.

As part of this work, the Canadian Council of the Directors of Apprenticeship (CCDA) identified four main harmonization priorities in consultation with industry and training stakeholders:

1. Trade name

The official Red Seal name for this trade is Carpenter.

2. Number of Levels of Apprenticeship

The number of levels of technical training recommended for the Carpenter trade is four.

3. Total Training Hours during Apprenticeship Training

The total hours of training, including both on-the-job and in-school training for the Carpenter trade is 7200.

4. Consistent sequencing of training content (at each level) using the most recent Occupational Standard

White boxes are “Topics,” grey boxes are “In Context”. In context means learning that has already taken place and is being applied to the applicable task. Learning outcomes for in context topics are accomplished in other topics in that level.

Level 1 (2016/2017 implementation)	Level 2 (2017/2018 implementation)	Level 3 (2018/2019 implementation)	Level 4 (2019/2020 implementation)
Project Drawings	Project Drawings	Project Drawings	Project Drawings
Specifications	Specifications	Specifications	Specifications
Materials/Fasteners, Adhesives and Connectors	Materials/Fasteners, Adhesives and Connectors	Materials/Fasteners, Adhesives and Connectors	Materials/Fasteners, Adhesives and Connectors
Safety			
Tools and Equipment			
Temporary Access Equipment and Structures			

Level 1 (2016/2017 implementation)	Level 2 (2017/2018 implementation)	Level 3 (2018/2019 implementation)	Level 4 (2019/2020 implementation)
Lifting, Rigging and Hoisting			
Documentation			Project Planning
Site Layout	Site Layout		
Constructs Formwork		Constructs Formwork	
Floor Systems (Engineered and Lumber Framing)			Flooring (Floor Covering)
Wall Systems (Engineered and Lumber Framing)	Wall Systems (Engineered and Lumber Framing)	Wall Systems (Demountable) Wallboard and Finish	
	Ceiling Framing	Ceiling Systems	
	Roof Systems/Trusses	Roof Systems/Trusses	Roof Systems/Trusses
	Roof Covering and Components		
	Jambs/Frames, Doors, Windows and Hardware (Exterior)	Jambs/Frames, Doors, Windows and Hardware (Interior)	Panels, Tiles and Solid Wood Finishes
	Finish Components and Accessories (Exterior)	Finish Components and Accessories (Interior)	
	Stairs • straight	Stairs • concrete	Stairs • geometric
Deck Systems			Renovation

CARPENTER TASK MATRIX CHART

This chart outlines the major work activities, tasks and sub-tasks from the 2013 National Occupational Analysis. Each sub-task details the corresponding essential skill and level of training where the content is covered. *

* Sub-tasks with numbers in the boxes is where the content will be delivered in training.

A - COMMON OCCUPATIONAL SKILLS

A-1 Uses and maintains tools and equipment	**1.01 Maintains hand, power and pneumatic tools** 1	**1.02 Maintains stationary tools** 1	**1.03 Uses powder-actuated tools.** 1	**1.04 Uses lifting, rigging and hoisting equipment** 1	**1.05 Uses layout equipment** 1, 2
A-2 Performs safety related activities	**2.01 Uses personal protective equipment (PPE) and safety equipment** 1	**2.02 Maintains safe work environment** 1			
A-3 Uses building materials	**3.01 Installs fasteners, adhesives and connectors** 1, In Context in 2,3,4	**3.02 Installs membranes and sealants** 1, In Context in 2,3,4	**3.03 Installs foundation protection** 1, In Context in 2,3,4	**3.04 Installs insulating materials** 1, In Context in 2,3,4	
A-4 Builds and uses temporary access structures	**4.01 Uses stationary access equipment** 1	**4.02 Uses mobile access equipment** 1	**4.03 Erects/dismantles scaffolding** 1	**4.04 Modifies specialized scaffolding** 1	

B – PLANNING AND LAYOUT

B-5 Interprets documentation	**5.01 Interprets project drawings** 1, In Context in 2,3,4	**5.02 Interprets specifications** 1, In Context in 2,3,4	**5.03 Interprets safety documentation** 1	**5.04 Interprets workplace documentation** 1

B-6 Organizes work	6.01 Schedules work sequence 1	6.02 Performs site preparation 1	6.03 Performs quantity take off 1	6.04 Organizes materials 1	
B-7 Performs layout	7.01 Performs site layout 1	7.02 Lays out concrete formwork 1,3	7.03 Lays out floor systems 1	7.04 Lays out deck systems 1	7.05 Lays out wall systems 2
	7.06 Lays out ceiling systems 2,3	7.07 Lays out roof systems 2,3,4	7.08 Lays out stairs 2,3,4		

C – CONCRETE

C-8 Constructs formwork	8.01 Erects excavation shoring and underpinning 3	8.02 Erects concrete falsework 3	8.03 Constructs footing forms 1	8.04 Constructs wall and grade beam formwork 1	8.05 Constructs slab on-grade formwork 1
	8.06 Constructs column formwork 3	8.07 Constructs stair formwork 3	8.08 Installs embedded steel 3	8.09 Dismantles formwork 1	
C-9 Installs concrete, cement-based and epoxy products	9.01 Places concrete 1	9.02 Facilitates curing of concrete 1	9.03 Performs basic concrete finishing 1	9.04 Installs pre-case components 3	9.05 Installs grout 3

D – FRAMING

D-10 Constructs floor systems	10.01 Installs engineered floor systems 1	10.02 Constructs dimensional lumber floor framing 1

D-11 Constructs deck systems	11.01 Constructs decks 1	11.02 Installs deck components 1
D-12 Constructs wall systems	12.01 Installs engineered wall systems 2	12.02 Constructs dimensional lumber wall framing 2
D-13 Constructs roof and ceiling systems	13.01 Installs engineered trusses 2,3,4	13.02 Constructs roof and ceiling framing 2,3,4

E – EXTERIOR FINISH

E-14 Installs exterior doors and windows	14.01 Installs exterior jambs/frames 2	14.02 Installs exterior doors 2	14.03 Installs specialty exterior doors 2	14.04 Installs exterior windows 2	14.05 Installs exterior door and window hardware 2
E-15 Installs roofing	15.01 Installs roofing components 2	15.02 Installs roof coverings 2			
E-16 Installs exterior finishes	16.01 Installs exterior wall components 2	16.02 Installs exterior wall coverings 2			

F – INTERIOR FINISH

F-17 Applies wall and ceiling finishes	17.01 Installs wallboard 3	17.02 Applies wall compound 3	17.03 Installs panels, tiles and solid wood finishes 3,4	17.04 Installs suspended ceiling 3	17.05 Installs demountable wall systems 3

F-18 Installs flooring	18.01 Installs underlayment 4	18.02 Installs floor coverings 4	18.03 Installs access flooring 4	
F-19 Installs interior doors and windows	19.01 Installs interior jambs/frames 3	19.02 Installs interior doors 3	19.03 Installs interior windows 3	19.04 Installs interior door and window hardware 3
F-20 Constructs and installs finish components and stairs	20.01 Fabricates finish components 3	20.02 Installs finish components and accessories 3	20.03 Constructs stairs 2,3,4	

G – RENOVATIONS

G-21 Performs renovation-specific support activities	21.01 Removes existing material 4	21.02 Protects structure during renovations 4
G-22 Performs renovation-specific construction activities	22.01 Joins new to existing construction 4	22.02 Changes existing structure during renovations 4

TRAINING PROFILE CHART

This Training Profile Chart represents Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) technical training at the topic level.

Level One	Transcript Code	Hours
Construction Documents	BRPT 100	12
Site Layout	CNST 102	30
Foundations	FNDT 100	45
Concrete	CONC 100	15
Tools	EQPT 100	36
Building Materials	MATE 100	12
Scaffolds and Rigging	SCAF 100	12
Safety Awareness	SFTY 101	12
Floor Framing	FRMG 100	36
		210

Level Two	Transcript Code	Hours
Construction Documents	BRPT 200	27
Exterior Finishes and Accessories	EXFN 200	24
Exterior Windows and Doors	EXFN 201	9
Wall Systems	FRMG 201	36
Roof Framing	FRMG 202	36
Roof Coverings	ROOF 200	12
Transits	CNST 204	30
Wood Stairs	STRS 201	36
		210

Level Three	Transcript Code	Hours
Construction Documents	BPRT 300	30
Doors and Hardware	DOOR 300	33
Interior Finish	INFN 300	42
Commercial Formwork	FNDT 300	42
Roof Framing	FRMG 300	36
Concrete Stairs	STRS 301	27
		210

Level Four	Transcript Code	Hours
Construction Documents	BPRT 401	15
Building Envelope	INSL 400	18
Intersecting Roof	FRMG 400	30
Wood Stairs	STRS 401	36
Interior Finish Components	INFN 400	12
Project Planning	PROJ 402	18
Renovations	RENO 400	12
Cabinets	INFN 401	42
Carpenter Review	REVW 400	27
		210

TECHNICAL TRAINING COURSE CONTENT

This chart outlines the model for Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) technical training sequencing. For the harmonized level of training, a cross reference to the National Occupational Analysis (NOA) apprenticeship technical training sequencing, at the learning outcome level, is provided.

Sub-tasks listed are the minimum to be covered in a topic. Related sub-tasks not listed may be used as a reference and taught “in context” in other topics.

Level One — 7 weeks — 210 hours

Safety Awareness — 12 hours

- Occupational Health & Safety (OH&S) legislation
- personal protective clothing and equipment
- fall protection equipment
- unsafe working environments
- fire safety procedures and control
- types of industrial health hazards

NOA subtasks covered in this section of training:

A-2 Performs safety related activities
A-2.01 Uses personal protective equipment and safety equipment
A-2.02 Maintains safe work environment

B-5 Interprets documentation
5.03 Interprets safety documentation

Tools — 36 hours

- hand tools
- portable power tools
- stationary power tools and equipment
- powder actuated tools

NOA subtasks covered in this section of training:

A-1 Uses and maintains tools and equipment
A-1.01 Maintains hand, power and pneumatic tools
A-1.02 Maintains stationary tools
A-1.03 Uses powder actuated tools
A-1.05 Uses layout instruments

Scaffolds and Rigging — 12 hours

- safe use of ladders and ramps
- erection, maintenance and dismantling of wood and metal access scaffolds
- basic rigging operations

NOA subtasks covered in this section of training:

A-1 Uses and maintains tools and equipment
A-1.04 Uses lifting, rigging and hoisting equipment

A-4 Builds and uses temporary access structures
A-4.01 Uses stationary access equipment
A-4.02 Uses mobile access equipment
A-4.03 Erects/dismantles scaffolding
A-4.04 Modifies specialized scaffolding

Construction Documents — 12 hours

- basic residential construction drawings
- building codes and permit

NOA subtasks covered in this section of training:

B-5 Interprets documentation
B-5.03 Interprets safety documentation
B-5.04 Interprets workplace documentation

Site Layout — 30 hours

- elevations with a builder's level
- building layout with hand tools
- elevations with a laser level

NOA subtasks covered in this section of training:

A-1 Uses and maintains tools and equipment
A-1.05 Uses layout instruments (hand tools, layout instruments up to builders level)

B-7 Performs Layout
B-7.01 Performs site layout

Concrete — 15 hours

- concrete mixtures and admixtures
- concrete testing
- place, finish and cure concrete
- concrete maintenance and repair

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.02 Lays out concrete framework

C-8 Constructs formwork
C-8.03 Constructs footing forms
C-8.04 Constructs wall and grade beam framework
C-8.05 Constructs slab on grade framework
C-8.08 Installs embedded steel
C-8.09 Dismantles formwork

Floor Framing — 36 hours

- beams and supports
- floor systems

- floor sheathing and installation procedures
- deck systems

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.03 Lays out floor systems
B-7.04 Lays out deck systems

D-10 Constructs floor systems
D-10.01 Installs engineered floor systems
D-10.02 Constructs dimensional lumber floor framing

D-11 Constructs deck systems
D-11.01 Constructs deck
D-11.02 Installs deck components

Foundations — 45 hours

- formwork for footings
- grade beam formwork and pilings
- formwork for foundation walls
- foundation drainage, damproofing, waterproofing, and backfilling
- formwork for slabs-on-grade
- concrete reinforcement
- permanent wood foundations

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.02 Lays out concrete framework

C-Constructs Formwork
C-8.03 Constructs footing forms
C-8.04 Constructs wall and grade beam framework
C-8.05 Constructs slab on grade framework
C-8.08 Installs embedded steel
C-8.09 Dismantles formwork

C-9 Installs concrete, cement-based and epoxy products
C-9.01 Places concrete
C-9.02 Facilitates the curing of concrete
C-9.03 Performs basic concrete finishing

Building Materials — 12 hours

- wood and lumber used in the construction process
- engineered panels used in the construction process
- engineered wood products used in the construction process
- storage for various building materials
- fasteners and procedures for their use
- metals used construction

Level One topics from the NOA that are taught in context:

A-3 Uses building materials
B-5 Interprets documentation

For details regarding the In Context Topic, see page 22

Level Two — 7 weeks — 210 hours

Construction Documents — 27 hours

- residential construction drawings

NOA subtasks covered in this section of training:

A-1 Uses and maintains tools and equipment
A-1.05 Uses layout instruments (total station)

Wall Systems — 36 hours

- wall framing systems
- engineered wall systems
- structural timber materials

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.05 Lays out wall systems

D-10 Constructs floor systems
D-10.02 Constructs dimensional lumber floor framing

D-12 Constructs wall systems
12.01 Installs engineered wall systems
12.02 Constructs dimensional lumber wall framing

Roof Framing — 36 hours

- conventional gable and shed roofs
- engineered roof trusses and sheathing
- gable roofs using metric measurements

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.06 Lays out ceiling systems
B-7.07 Lays out roof systems

D-13 Constructs roof and ceiling systems
D-13.01 Installs engineered trusses
D-13.02 Constructs roof and ceiling framing

Roof Coverings — 12 hours

- roof coverings

NOA subtasks covered in this section of training:

E-15 Installs roofing
E-15.01 Installs roofing components
E-15.02 Installs roofing coverings

Exterior Windows and Doors — 9 hours

- exterior windows
- exterior doors

NOA subtasks covered in this section of training:

E-14 Installs exterior doors and windows
E-14.01 Installs exterior jambs/frames
E-14.02 Installs exterior doors
E-14.03 Installs specialty exterior doors
E-14.04 Installs exterior windows
E-14.05 Installs exterior door and window hardware

Exterior Finishes and Accessories — 24 hours

- cornices
- exterior wall covering

NOA subtasks covered in this section of training:

E-16 Installs exterior finishes
E-16.01 Installs exterior wall components
E-16.02 Installs exterior wall coverings

Transits — 30 hours

- basic transit functions
- building layout with transit

NOA subtasks covered in this section of training:

A-1 Uses and maintains tools and equipment
A-1.05 Uses layout instruments (hand tools, layout instruments up to builders level)

Wood Stairs — 36 hours

- basic wood stairs
- straight stairwell openings

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.03 Lays out stairs

F-20 Constructs and installs finish components and stairs
F-20.03 Constructs stairs

Level Two topics from the NOA that are taught in context:

A-3 Uses building materials
B-5 Interprets documentation

For details regarding the In Context Topic, see page 22

Level Three — 7 weeks — 210 hours

Construction Documents — 30 hours

- basic construction freehand sketches
- commercial drawings and specifications

NOA subtasks covered in this section of training:

B-5 Interprets documentation
B-5.01 Interprets project drawings
B-5.02 Interprets specifications

Commercial Formwork — 42 hours

- formwork for columns and piers
- slab and beam formwork
- wall formwork for commercial construction

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.02 Lays out concrete formwork

C-8 Constructs formwork
C-8.01 Erects excavation shoring and underpinning
C-8.02 Erects concrete falsework
C-8.06 Constructs column formwork
C-8.08 Installs embedded steel

C-9 Installs concrete, cement-based and epoxy products
C-9.04 Installs pre-cast components
C-9.05 Installs grout

Concrete Stairs — 27 hours

- formwork for concrete stairs

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.03 Lays out stairs

C-8 Constructs formwork
C-8.07 Constructs stair formwork

F-20 Constructs and installs finish components and stairs
F-20.03 Constructs stairs

Roof Framing — 36 hours

- conventional hip roofs
- engineered roof trusses and install sheathing
- hip roofs using metric measurements

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.07 Lays out roof systems

D-13 Constructs roof and ceiling systems
D-13.01 Installs engineered trusses
D-13.02 Constructs roof and ceiling framing

Interior Finish — 42 hours

- interior wall systems
- finish components and accessories
- ceiling finishes
- various types of flooring

NOA subtasks covered in this section of training:

B-7 Performs layout
B-7.06 Lays out ceiling systems

F-17 Interior Finish
F-17.01 Installs wallboard
F-17.02 Installs wall compound
F-17.03 Installs panels, tiles and solid wood finishes
F-17.04 Installs suspended ceilings
F-17.05 Installs demountable wall systems

F-20 Constructs and installs finish components and stairs
F-20.01 Fabricates finish components
F-20.02 Installs finish components and accessories

Doors and Hardware — 33 hours

- commercial door frames, doors and hardware
- residential door frames, doors and hardware
- specialty doors

NOA subtasks covered in this section of training:

F-19 Installs interior doors and windows
F-19.01 - installs interior jambs/frames
F-19.02 - installs interior doors
F-19.03 - installs interior windows
F-19.04 - installs interior door and window hardware

Level Three topics from the NOA that are taught in context:

A-3 Uses building materials
B-5 Interprets documentation
For details regarding the In Context Topic, see page 22

Level Four — 7 weeks — 210 hours

Construction Documents — 15 hours

- commercial drawings and specification

NOA subtasks covered in this section of training:

B-6 Organizes work
B-6.01 Schedules work sequence
B-6.02 Performs site preparation
B-6.04 Organizes materials

Intersecting Roof — 30 hours

- construct an intersecting roof (imperial)
- calculate an intersecting roof (metric)

NOA subtasks covered in this section of training:

B-7 Performs layouts
B-7.07 Lays out roof systems

D-13 Constructs roof and ceiling systems
D-13.01 Installs engineered trusses
D-13.02 Constructs roof and ceiling framing

Cabinets (Exceeds) — 42 hours

- materials, terminology and design considerations used in the construction of cabinets
- wall cabinets
- base cabinets
- plastic laminate counter tops

This section of training exceeds the minimum sequencing as set out by the Carpenter NOA.

Wood stairs — 36 hours

- stairs and balustrades
- stairwell openings
- winders and geometrical stairs

NOA subtasks covered in this section of training:

B-7 Performs layouts
B-7.03 Lays out stairs

F-20 Constructs and installs finish components and stairs
F-20.03 Constructs stairs

Interior Finish Components — 12 hours

- flooring
- panelling

NOA subtasks covered in this section of training:

F-17 Interior finish
F-17.03 Installs panels, tiles and solid wood finishes

F-18 Installs flooring
F-18.01 Installs underlayment
F-18.02 installs floor covering
F-18.03 Installs access flooring

Renovations — 12 hours

- renovation-specific construction documents
- renovation-specific construction activities

NOA subtasks covered in this section of training:

G-21 Renovations
G-21.01 Removes existing material
G-21.02 Protects structure during renovations
G-22.01 Joins new to existing construction
G-22.02 Changes existing structure during renovations

Project Planning — 12 hours

- quantity take-off
- organizes work

NOA subtasks covered in this section of training:

B-6 Organizes work
6.01 Schedules work sequence
6.02 Performs site preparation
6.04 Organizes materials

Building Envelope — 18 hours

- insulate and seal the building envelope
- fundamentals of building science

NOA subtasks covered in this section of training:

A-3 Uses building materials

A-3.02 Installs membranes and sealants
A-3.03 Installs foundation protection
A-3.04 Installs insulating materials

Carpenter Review (Exceed) **27 hours**

- common occupational skills
- planning and layout
- concrete
- framing
- exterior finish
- interior finish
- renovations

This section of training exceeds the minimum sequencing as set out by the Carpenter NOA.

Level Four topics from the NOA that are taught in context:

A-3 Uses building materials
B-5 Interprets documentation

For details regarding the In Context Topic, see page 22

In Context Topics

In context means learning that has already taken place and is being applied to the applicable task. Learning outcomes for in context topics are accomplished in other topics in that level.

A-3 Uses building materials
A-3.01 Installs fasteners, adhesives and connectors

B-5 Interprets documentation
B-5.01 Interprets project drawings
B-5.02 Interprets specifications

APPENDIX A: POST HARMONIZATION TRAINING PROFILE CHART

This chart which outlines the finalized model for SATCC technical training sequencing with a cross reference to the Harmonized apprenticeship technical training sequencing, at the topic level.

Implementation for harmonization took place progressively. Level one was implemented in 2016/2017, level two 2017/2018, level three 2018/2019, and level four in 2019/2020.

SATCC Level One	Transcript Code	Hours	Pan-Canadian Harmonized Level One
Construction Documents	BRPT 100	12	Project Drawings
			Specifications
			Documentation
Site Layout	CNST 102	30	Site Layout
Safety Awareness	SFTY 101	12	Safety
Foundations	FNDT 100	45	Wall Systems Introduction
Concrete	CONC 100	15	Constructs Formwork
Tools	EQPT 100	36	Tools and Equipment
Building Materials	MATE 100	12	Materials/Fasteners, Adhesives and Connectors
Scaffolds and Rigging	SCAF 100	12	Temporary Access Equipment and Structures
			Lifting, Rigging and Hoisting
Floor Framing	FRMG 100	36	Floor Systems
			Deck Systems
		210	

SATCC Level Two	Transcript Code	Hours	Pan-Canadian Harmonized Level Two
Construction Documents	BPRT 200	27	Project Drawings
			Specifications
Exterior Finishes and Accessories	EXFN 200	24	Materials/Fasteners, Adhesives and Connectors
			Finishes Components and Accessories (Exterior)
Exterior Windows and Doors	EXFN 201	9	Jambs/Frames, Doors, Windows and Hardware (Exterior)
Walls Systems	FRMG 201	36	Wall Systems (Engineered and Lumber Framing)
Roof Framing	FRMG 202	36	Roof Systems/Trusses
			Ceiling Framing
Roof Coverings	ROOF 200	12	Roof Covering and Components
Transits	CNST 204	30	Site Layout
Stairs	STRS 201	36	Stairs
		210	

SATCC Level Three	Transcript Code	Hours	Pan-Canadian Harmonized Level Three
Construction Documents	BRPT 300	30	Project Drawings
			Specifications
Doors and Hardware	DOOR 300	33	Jambs, Frames, Doors, Windows and Hardware (Interior)
Interior Finish	INFN 300	42	Finish Components and Accessories
			Ceiling Systems
			Wall Systems
Commercial Formwork	FNDT 300	42	Constructs Formwork
Roof Framing	FRMG 300	36	Roof Systems/Trusses
Concrete Stairs	STRS 301	27	Stairs
		210	

SATCC Level Four	Transcript Code	Hours	Pan-Canadian Harmonized Level Four
Construction Documents	BPRT 401	15	Project Drawings
			Specifications
Building Envelope	INSL 400	18	Materials/Fasteners, Adhesives and Connectors
Intersecting Roof	FRMG 400	30	Roof Systems/Trusses
Wood Stairs	STRS 401	36	Stairs
Interior Finish Components	INFN 400	12	Flooring
			Panels, Tiles and Solid Wood Finishes
Project Planning	PROJ 402	18	Project Planning
Renovations	RENO 400	12	Renovations
Cabinets	INFN 401	42	Exceeds
Carpenter Review	REVW 400	27	Exceeds
		210	

Exceed Topics

Throughout this guide to course content there are topics which exceed the minimum scope of work as set out in the Carpenter NOA. Industry in Saskatchewan has deemed certain topics to fall within the scope of work of the Carpenter trade in Saskatchewan and therefore require technical training to cover these topics.