Bricklayer

Guide to Course Content

2022

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Saskatchewan Apprenticeship and Trade Certification Commission

Online: www.saskapprenticeship.ca
Recognition:
To promote transparency and consistency, this document has been adapted from the 2016 Bricklayer National Occupational Analysis (Employment and Social Development Canada).

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

Note:

For the 2022-2023 school year, Bricklayer Apprenticeship technical training is Harmonized for Levels 1 and 2.

Non-harmonized Level 3 training is not available in Saskatchewan for the 2022-2023 technical training year.

Harmonized Level 3 training will be implemented in the Saskatchewan curriculum for the 2023-24 semester.

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

Essential Skills Summary: an overview of how each of the eight 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 will take place progressively. Level one will be implemented in 2021/2022, level two 2022/2023 and level three 2023/2024.

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.

Major Work Activity (MWA): 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 Bricklayer 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.

The Red Seal Bricklayer Curriculum Outline, which provides additional detail of the Harmonized technical training, can be found at www.red-seal.ca

DESCRIPTION OF THE BRICKLAYER TRADE

Bricklayers lay concrete block, brick, pre-cut stone and other materials in the construction or repairing of structures.

Bricklayers build and repair walls, floors, arches, pavings, partitions, fireplaces, chimneys, smokestacks, furnaces, kilns and other structures. They work with materials such as brick, natural stone, manufactured stone, tiles, precast masonry panels, glass blocks, concrete blocks, light-weight insulated panels, other masonry units, insulation and membranes. They erect, install, maintain, repair and alter various masonry. The structures vary in complexity from a simple masonry walkway to an ornate exterior on a multi-level building.

Bricklayers use wheelbarrows and forklifts to transport materials. They use hand and power tools to cut and trim masonry units to required size. Trowels are used to spread mortar to bond layers of masonry units together. Measuring and layout tools such as a plumb line, level and laser level are used to ensure proper alignment.

Bricklayers work on industrial, commercial, institutional and residential buildings. They may specialize in stonework, restoration work or ornamental work. They may also specialize in installing refractories in high-temperature environments or installing corrosion resistant materials to line corrosive environments such as tanks and vessels.

Key attributes for people in this trade are manual dexterity, mechanical aptitude, the ability to problem solve and think sequentially, and the ability to work at heights. Bricklaying is physically demanding work and requires considerable effort in lifting heavy materials, climbing, bending, kneeling, working in confined spaces and working on scaffolding. Bricklayers need to have an eye for detail in order to create accurate and aesthetically pleasing work.

Most of the work is performed outdoors exposing bricklayers to the elements. The winterization of job sites allows the work to continue year round. Construction safety and accident prevention is a priority.

This analysis recognizes similarities or overlaps with the work of other trades such as tilesetters, concrete finishers, carpenters, and drywall finisher and plasterers.

Experienced bricklayers may advance to supervisory positions for masonry contractors or in other related fields such as construction management, estimating or building inspection. They may also become contractors.

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 1500 hours each year. Total trade time required is 6000 hours and at least 4 years in the trade.

There are three levels of technical training delivered by Saskatchewan Polytechnic in Saskatoon:

Level One:	8 weeks
Level Two:	8 weeks
Level Three:	8 weeks

The information contained in this document serves as a guide for employers and apprentices, as well as briefly summarizes the training delivered at each level of apprenticeship training. An apprentice spends approximately 15% of the 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
Bricklayer	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

Bricklayers require strong reading skills to read a variety of documentation such as job specifications, manufacturers' directions for product preparation and application, job site, company and jurisdictional safety requirements, and correspondence from suppliers and contractors.

DOCUMENT USE

Bricklayers interpret blueprints, read assembly drawings and make sketches of items to be built. They complete forms such as time sheets, incident reports, request for information (RFI), personal safety information (PSI) and field level risk assessments (FLRA).

WRITING

Bricklayers use writing skills to complete documents such as lists of materials, incident reports, and time sheets. They may correspond in writing with co-workers regarding supplies or work to be done.

ORAL COMMUNICATION

Bricklayers talk with suppliers, delivery personnel, customers and co-workers, and co-ordinate activities with other trades. They give directions to apprentices, liaise with supervisors and participate in meetings.

NUMERACY

Bricklayers measure the length, height and width of structures to be built and calculate angles of arches when constructing openings. They estimate mix ratios by weight and volume. Bricklayers estimate the amount of time and material required to complete a job.

THINKING SKILLS

Bricklayers use problem solving skills to address issues that may arise on the job such as design changes or omissions. Bricklayers plan the materials and equipment they need for a job and schedule tasks according to priority, sequence and to meet the needs of other trades on site.

WORKING WITH OTHERS

Bricklayers usually work in a team environment although they may work alone on some jobs. Many jobs are done with a fellow worker. Therefore, they must cooperate and coordinate with others to ensure consistent work. Bricklayers may perform supervisory functions and guide or monitor the work performance of others.

DIGITAL TECHNOLOGY

Bricklayers may use digital devices to complete numeracy related tasks and to communicate with others. They may access online information posted by suppliers and manufacturers to stay current on industry trends and practices. Bricklayers may also access databases to retrieve forms such as change orders and to retrieve architectural drawings. Bricklayers may use computer controlled layout equipment such as surveying equipment and smart levels to measure distances and horizontal and vertical angles of brick structures.

CONTINUOUS LEARNING

Bricklayers learn continuously through experience and creativity on the job. They may attend sessions provided by manufacturers of new products. Bricklayers may also attend specialty in-person or online courses, for example safety or landscaping with bricks, blocks and stone, or reference pamphlets, booklets or manuals on specific topics. Bricklayers may need to expand their skills by getting additional certifications such as scaffold building, welding, hoisting and rigging and confined space.

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 Bricklayer.

2. Number of Levels of Apprenticeship

The number of levels of technical training recommended for the Bricklayer trade is three.

3. Total Training Hours during Apprenticeship Training

The total hours of training, including both on-the-job and in-school training for the Bricklayer trade is 6000.

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

Implementation for harmonization will take place progressively. Level one is to be implemented in 2022/2023, level 2 2023/2024 and level 4 2024/2025

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 (2022/2023 implementation)	Level 2 (2023/2024 implementation)	Level 3 (2024/2025 implementation)
	Context	Context
	Tools and Equipment	Tools and Equipment
	Substrate Preparation	Substrate Preparation
		Natural Stone Walls
	Scaffolding	Scaffolding
		Prefabricated Masonry

Level 1 (2021/2022 implementation)	Level 2 (2022/2023 implementation)	Level 3 (2023/2024 implementation)
Safety-Related Functions		
Tools and Equipment		
Scaffolding		
Organizes work	Organizes work	Organizes work
Communication Techniques		Mentoring Techniques
Substrate Preparation		
Fundamental Masonry Tasks		
Mortars, Grouts and Adhesives	Mortars, Grouts and Adhesives	Mortars, Grouts and Adhesives
Masonry Walls	Masonry Walls	
		Horizontal Masonry Surfaces
	Prefabricated Masonry	
	Surface-Bonded Masonry Units	
	Natural Stone Walls	
		Natural Stone Cladding (Mechanically-Fastened)
		Chimneys
		Fireplaces
		Refractories
		Corrosion Resistant Materials
	Masonry Work (Rebuilds)	
	Masonry Work (Repairs and cleans)	Masonry Work (Repairs and cleans)
	Glass Block	
		Ornamental and Sculpted Masonry Units
	Arches	Arches (Removes, repairs and installs)

BRICKLAYER TASK MATRIX CHART

This chart outlines the major work activities, tasks and sub-tasks from the 2021 Bricklayer Red Seal Occupational Standard.

The Task Matrix Chart will be updated every year until Harmonization implementation is complete. Implementation for harmonization will take place progressively. Level one to be implemented in 2021/2022, level 2 in 2022/2023 and level 3 in 2023/2024

*Sub-tasks with numbers in the boxes are where the content will be delivered in training. Harmonization for the Bricklayer trade has been fully implemented for each technical training level.

A – PERFORMS COMMON OCCUPATIONAL SKILLS

Task A-1 Performs safety-related functions	**A-1.01 Maintains safe work environment** 1	**A-1.02 Uses personal protective equipment (PPE) and safety equipment** 1		
Task A-2 Uses and maintains tools and equipment	**A-2.01 Maintains tools and equipment** 1 In context levels 2,3	**A-2.02 Uses rigging, hoisting and lifting equipment** 1 In context levels 2,3	**A-2.03 Uses access equipment** 1 In context levels 2,3	
Task A-3 Uses scaffolding	**A-3.01 Erects scaffolding** 1 In context levels 2,3	**A-3.02 Dismantles scaffolding** 1 In context levels 2,3	**A-3.03 Maintains scaffolding** 1 In context levels 2,3	
Task A-4 Organizes work	**A-4.01 Uses drawings and specifications** 1, 2	**A-4.02 Plans daily tasks and activities** 1	**A-4.03 Prepares jobsite and materials** 1	**A-4.04 Protects surrounding areas** 1

Task A-5 **Uses communication and mentoring techniques**	**A-5.01** **Uses communication techniques** **1**	**A-5.02** **Uses mentoring techniques**

B – PERFORMS GENERAL MASONRY PRACTICES

Task B-6 Performs substrate preparation	**B-6.01** **Prepares vertical substrates and foundations** **1** **In context levels 2,3**	**B-6.02** **Applies parging** **1** **In context levels 2,3**	**B-6.03** **Installs anchoring/tie systems** **1** **In context levels 2,3**	**B-6.04** **Installs membrane and flashing** **1** **In context levels 2,3**
	B-6.05 **Installs insulation** **1** **In context levels 2,3**			
Task B-7 Performs fundamental masonry tasks	**B-7.01** **Lays out wall and coursing** **1**	**B-7.02** **Finishes joints** **1**	**B-7.03** **Cleans new masonry surfaces** **1**	**B-7.04** **Seals masonry surfaces** **1**
Task B-8 **Uses mortars, grouts and adhesives**	**B-8.01** **Mixes mortar, concrete, grout and adhesives** **1, 2**	**B-8.02** **Uses mortars** **2**	**B-8.03** **Uses concrete and grout** **1, 2**	**B-8.04** **Uses adhesives** **1, 2**

C – BUILDS MASONRY SYSTEMS

Task C-9 **Builds masonry walls**	**C-9.01** **Builds non-load-bearing walls** **1**	**C-9.02** **Builds load-bearing walls** **2**

Task C-10 **Builds horizontal masonry surfaces**	**C-10.01** **Prepares horizontal substrate**	**C-10.02** **Lays masonry units on horizontal surfaces**
Task C-11 **Builds and installs prefabricated masonry**	**C-11.01** **Builds prefabricated masonry** **2** **In context level 3**	**C-11.02** **Erects prefabricated masonry** **2** **In context level 3**
Task C-12 Installs surface-bonded masonry units	**C-12.01** **Prepares substrate for surface-bonded masonry units** **2**	**C-12.02** **Applies surface-bonded masonry units** **2**

D – BUILDS NATURAL STONE SYSTEMS

Task D-13 **Builds natural stone walls**	**D-13.01** **Prepares natural stone** **2** **In context level 3**	**D-13.02** **Lays natural stone** **2** **In context level 3**	**D-13.03** **Damp cures walls** **2** **In context level 3**
Task D-14 Performs mechanically-fastened natural stone cladding procedures	**D-14.01** **Prepares substrate for cladding**	**D-14.02** **Prepares natural stone for cladding**	**D-14.03** **Installs natural stone cladding**

E – BUILDS CHIMNEYS AND FIREPLACES

Task E-15 **Builds chimneys**	**E-15.01** **Builds foundation supports for chimneys**	**E-15.02** **Lays masonry units to build chimneys**	**E-15.03** **Installs flue lining**	**E-15.04** **Installs related flashings**
	E-15.05 **Installs caps**			
Task E-16 **Builds fireplaces**	**E-16.01** **Builds foundation for hearth, firebox, backup material and veneer**	**E-16.02** **Builds hearth, firebox and backup**	**E-16.03** **Installs damper**	**E-16.04** **Builds smoke chamber**
	E-16.05 **Prepares existing fireplace for insert**	**E-16.06** **Faces fireplaces and inserts**		

F – INSTALLS REFRACTORIES AND CORROSION RESISTANT MATERIALS

Task F-17 Installs and maintains refractories	**F-17.01** **Prepares for installation of refractories and accessories**	**F-17.02** **Prepares mortar for refractories**	**F-17.03** **Removes existing refractories**	**F-17.04** **Installs refractories**

	F-17.05 Repairs refractories			
Task F-18 Installs and maintains corrosion resistant materials	F-18.01 Prepares for installation of corrosion resistant materials and accessories	F-18.02 Prepares mortar for corrosion resistant materials	F-18.03 Removes existing corrosion resistant materials	F-18.04 Installs corrosion resistant materials
	F-18.05 Repairs corrosion resistant materials			

G – PERFORMS RESTORATION

Task G-19 Rebuilds masonry work	G-19.01 Disassembles unit masonry 2	G-19.02 Prepares restoration work area 2	G-19.03 Reinstalls masonry and accessories 2	
Task G-20 Repairs and cleans existing masonry work	G-20.01 Removes deteriorated masonry units 2	G-20.02 Repoints joints 2	G-20.03 Repairs masonry units 2	G-20.04 Reinstalls masonry units and accessories 2
	G-20.05 Cleans existing masonry surfaces 2			

H – PERFORMS ADDITIONAL MASONRY

Task H-21 Installs glass blocks	**H-21.01** **Prepares work area for installation of glass blocks** **2**	**H-21.02** **Lays glass blocks** **2**
Task H-22 Installs ornamental and sculpted masonry	**H-22.01** **Prepares for installation of ornamental and sculpted masonry units**	**H-22.02** **Installs ornamental and sculpted masonry units**

Task H-23 **Builds arches**	**H-23.01** **Prepares location for installation of arch** **2**	**H-23.02** **Builds template** **2**	**H-23.03** **Places template** **2**	**H-23.04** **Installs arch masonry units** **2**
	H-23.05 **Removes template** **2**			

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 and Sketching	BRPT 124	18
Tools and Equipment	EQPT 134	24
Masonry Materials	MATE 121	12
Mortars Grouts and Adhesives	MSON 124	24
Layout and Fundamental Tasks	MSON 104	18
Building Enclosure & Substrate Preparation	MSON 105	24
General Safety & Job-site Communication	SFTY 121	18
Scaffolding	SCAF 121	12
Masonry Systems 1	MSON 106	90
		240

Level Two	Transcript Code	Hours
Construction Documents 2	BPRT 221	30
Basic Masonry Arches	CNST 203	42
Stone Masonry	MSON 200	42
Surface Bonded Masonry	MSON 204	30
Masonry Restoration 1	MSON 205	36
Masonry Systems 2	MSON 206	60
		240

***Non-harmonized Level 3 Bricklayer is currently not being taught in Saskatchewan for the 2022/23 schoolyear.**

Level Three	Transcript Code	Hours
Construction Documents and Sketching	BPRT 320	33
Refractories	CNST 323	24
Masonry Restoration	MSON 327	24
Estimating	ESTM 320	12
Masonry Overlays	MSON 325	21
Advanced Bricklaying Techniques	MSON 326	24
Reinforced Masonry	MSON 329	30
Trade Mathematics	MATH 320	18
Masonry Review	REV 320	36
Practicum	PRAC 320	18
		240

TECHNICAL TRAINING COURSE CONTENT

This chart outlines the model for Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) technical training sequencing.

Implementation for harmonization will take place progressively. Level one to be implemented in 2021/2022, level 2 in 2022/2023 and level 3 in 2023/2024.

Level One 8 weeks 240 hours

18 hours

Construction Documents and Sketching

- Identify construction documents
- Interpret measurement systems and scales
- Identify construction drawing language
- Compare various types of drawings
- Perform basic math used in construction

RSOS topics covered in this section of training:

A-4 Organizes Work
A-4.01 Uses drawings and specifications

- identify requirements
- interpret specifications
- draw sketches
- demonstrate knowledge of drawings and specifications
- demonstrate knowledge of procedures to draw sketches

24 hours

Tools and Equipment

- Identify measuring and layout tools
- Identify masonry hand tools
- Identify portable power tools used in the masonry trade
- Identify tools and equipment used to mix mortar and grout
- Identify tools and equipment used for moving materials
- Operate tools and equipment used in the masonry trade
- Describe the safe use of powder actuated tools

RSOS topics covered in this section of training:

A-2 Uses and maintains tools and equipment
A-2.01 Maintains tools and equipment

- repair or replace defective or damaged tools and equipment
- clean and store tools and equipment
- document tool and equipment maintenance
- identify, tag and remove worn, damaged and defective tools
- lubricate equipment
- sharpen tools
- demonstrate knowledge of maintaining tools and equipment
- demonstrate knowledge of procedures to maintain tools and equipment

12 hours

Masonry Materials

- Describe clay products
- Describe concrete products
- Describe additional masonry products

RSOS topics covered in this section of training:

B-7 Performs fundamental masonry tasks
B-7.01 Lays out wall and coursing

- determine wall location and floor grade
- perform layout using techniques
- mark off location of masonry units
- adjust bond
- demonstrate knowledge of laying out wall and coursing
- demonstrate knowledge of procedures to lay out wall and coursing

C-9 Builds masonry walls
C-9.01 Builds non-load bearing wall

- select and use tools and equipment
- determine wall properties
- install reinforcements
- build leads
- cut masonry units
- maintain bond
- lay masonry units
- adjust joint thickness
- install lintels
- build in accessories
- brace and support walls
- demonstrate knowledge of non-load bearing walls
- demonstrate knowledge of procedures to build non-load bearing walls

24 hours

Mortars, Grouts and Adhesives

- Identify the characteristics and properties of mortar
- Mix mortar to a workable state
- Perform mortar joint finishes
- Describe concrete design and mixing
- Identify adhesives used in masonry construction
- Identify building code requirements for mortar and concrete

RSOS topics covered in this section of training:

B-7 Performs fundamental masonry tasks
B-7.02 Finishes joints.

- select joint finish
- assess mortar readiness
- tool joints
- fill voids in joints
- remove excess mortar and retool joint

- demonstrate knowledge of procedures to finish joints

B-8 Uses mortar, grouts and adhesives

B-8.01 Mixes mortar, grout and adhesives

- select mortar, concrete, grout and adhesive
- verify that water supply is clean and potable
- adjust mixing conditions
- measure components
- add mixture
- add aggregate
- use mixing equipment
- time mixing
- assess readiness of product
- demonstrate knowledge of mortar, concrete, grout and adhesives
- demonstrate knowledge of procedures to mix mortar, concrete, grout and adhesives

B-8.03 Uses concrete and grout

- assess wall
- prime holes
- select processes
- place concrete and grout
- fill voids
- demonstrate knowledge of concrete and grout
- demonstrate knowledge of procedures to apply concrete and grout

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18 hours

Layout and Fundamental Tasks

- Practice job-site setup
- Perform building layout procedures
- Identify masonry unit positions and bond patterns
- Describe procedures for masonry wall layout
- Describe cleaning and sealing new masonry surfaces

RSOS topics covered in this section of training

A-4 Organizes work

A-4.02 Plans daily tasks and activities.

- schedule tasks
- sequence tasks
- estimate amount of time required for tasks
- demonstrate knowledge of planning daily tasks and activities
- demonstrate knowledge of procedures to plan daily tasks and activities

A-4.03 Prepares jobsite and materials.

- estimate and confirm amount of material required
- coordinate delivery of materials
- perform site assessment
- set up mixing area
- place materials on job-site
- store and protect materials
- weatherize installation location
- provide ventilation for heaters
- store hazardous materials

- demonstrate knowledge of preparing jobsite and materials
- demonstrate knowledge of procedures to prepare jobsite and materials

A-4.04 Protects surrounding areas.
- determine surrounding areas requiring protection
- assess risks to surrounding areas
- restrict dust creation using techniques
- set up protective materials
- demonstrate knowledge of protecting surrounding areas
- demonstrate knowledge of procedures to protect surrounding areas

B-7 Performs fundamental masonry tasks
B-7.01 Lays out walls and coursing.
- determine wall location and floor grade
- perform layout using techniques
- mark off location of masonry unites
- adjust bond
- demonstrate knowledge of laying out wall and coursing
- demonstrate knowledge of procedures to lay out wall and coursing

B-7.03 Cleans new masonry surfaces.
- remove access mortar
- select cleaner
- prepare cleaner
- pre-soak, brush and scrub surfaces
- apply cleaner
- rinse surface
- check surface
- demonstrate knowledge of cleaning masonry surfaces
- demonstrate knowledge of procedures to clean masonry surfaces

B-7.04 Seals masonry surfaces.
- select sealant
- verify that surface is clean and dry
- apply sealant using methods
- demonstrate knowledge of sealing masonry surfaces
- demonstrate knowledge of procedures to seal masonry surfaces

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24 hours

Building Enclosure & Substrate Preparation

- Describe substrates, foundations and parging procedures.
- Identify masonry anchors and ties.
- Describe the building enclosure.
- Identify air barriers.
- Identify vapour barriers.
- Identify insulations.

RSOS topics covered in this section of training.

B-6 Performs substrate preparation
B-6.01 Prepares vertical substrates and foundations.
- wash and dry substrate
- fill holes and cracks in substrate
- remove glues, old membranes and accessories

- replace deteriorated material
- prime substrate
- fasten mesh to substrate
- demonstrate knowledge of preparing substrates and foundations
- demonstrate knowledge of procedures to prepare substrates and foundations

B-6.02 Applies parging.

- dampen substrate
- apply bonding agents to substrate
- mix parging material
- trowel on parging material to substrate
- demonstrate knowledge of preparing parging
- demonstrate knowledge of procedures to apply parging

B-6.03 Installs anchor and tie systems.

- select type of anchoring/tie systems
- determine vertical and horizontal spacing of anchors and ties
- fasten anchors and ties to substrate
- attach ties to anchors
- demonstrate knowledge of anchoring/tie system
- demonstrate knowledge of procedures to install anchoring/tie systems

B-6.04 Installs membranes and flashing.

- select base flashing
- attach base flashing and membrane
- seal seams and tears to membrane, and cuts and joints in flashing
- complete building envelope
- demonstrate knowledge of membranes and flashings
- demonstrate knowledge of procedures to install membranes and flashings

B-6.05 Installs insulation

- select insulation
- cut and fit insulation
- secure insulation to substrate and membrane
- demonstrate knowledge of insulation
- demonstrate knowledge of procedures to install insulation

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18 hours

General Safety and Jobsite Communications

- Identify occupational health and safety regulations
- Select personal protective equipment
- Identify fall protection equipment
- Identify unsafe working environments and hazard control
- Practice hazard identification and control
- Identify WHMIS 2015 (GHS)
- Use effective communication techniques

RSOS topics covered in the section of training.

A-1 Performs safety related functions

A-1.01 Maintains safe work environment

- handle, store and dispose of hazardous materials
- define work perimeters and contain contaminants or other hazards
- follow tag procedures
- participate in field level risk assessments (FLRA) meetings

- maintain work area
- perform safety inspections
- identify safety concerns in work environment
- identify and respect physical limitations of self and others
- identify location of safety zone containing components
- document items
- demonstrate knowledge of maintaining safe work environments
- demonstrate knowledge of procedures to maintain safe work environments

A-1.02 Uses PPE and safety equipment

- apply local, provincial, territorial and national safety regulations and standards
- identify company and site policies and site hazards requiring use of PPE and safety equipment
- select and use PPE and safety equipment
- maintain and store PPE and safety equipment
- identify damaged PPE
- identify Canadian Standards Association (CSA) approved PPE and safety equipment
- ensure fit of PPE
- confirm respirator fit
- report and replace damaged or faulty equipment

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12 hours

Scaffolding

- Describe the safe use of ladders and scaffolding
- Describe the erection, maintenance, and dismantling of metal access scaffolds
- Identify basic rigging operations

RSOS topics covered in this section of training.

A-2 Uses and maintains tools and equipment

A-2.02 Uses rigging, hoisting and lifting equipment.

- select rigging, hoisting and lifting equipment
- locate centre of gravity of load
- secure load
- communicate with personnel involved in lift
- recognize safe lifting locations or points
- calculate weight of material
- operate forklift
- stabilize load during lift
- inspect rigging, hoisting and lifting equipment
- maintain and store rigging, hoisting and lifting equipment
- remove worn, damaged or expired rigging, hoisting and lifting equipment
- demonstrate knowledge of operating and maintaining rigging, hoisting and lifting equipment
- demonstrate knowledge of operating and maintaining material handling equipment
- demonstrate knowledge of procedures to operate and maintain rigging, hoisting and lifting equipment
- demonstrate knowledge of procedures to operate and maintain material handling equipment

A-2.03 Uses access equipment.

- select access equipment
- recognize safe lifting locations
- inspect access equipment
- operate access equipment
- tag and remove defective access equipment
- demonstrate knowledge of operating and maintaining access equipment
- demonstrate knowledge of procedures to operate and maintain access equipment

A-3 Uses Scaffolds

A-3.01 Erects scaffolding.

- select scaffolding
- inspect scaffolding
- identify hazards before and when erecting access equipment
- use scaffolding within operating limitations
- lay out scaffolding
- install scaffolding and their components
- set up swing stage components
- level and secure scaffolding
- install means of access and egress
- install safety accessories
- demonstrate knowledge of scaffolding
- demonstrate knowledge of procedures to erect scaffolding

A-3.02 Dismantles scaffolding.

- remove components and safety accessories
- lower components using rigging, hoisting and lifting equipment
- remove tie-ins
- sort and prepare components for transportation
- demonstrate knowledge of scaffolding
- demonstrate knowledge of procedures to dismantle scaffolding, their components and safety accessories.

A-3.03 Maintains scaffolding.

- inspect scaffolding
- replace damaged or missing scaffolding components and safety accessories
- clean and store scaffolding
- demonstrate knowledge of scaffolding
- demonstrate knowledge of procedures to maintain and store scaffolding

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90 hours

Masonry Systems 1

- Identify masonry wall systems.
- Identify masonry wall elements.
- Identify ornamental bond patterns.
- Identify building code requirements for masonry wall systems.
- Describe procedures for laying masonry units.
- Construct various wall systems.

RSOS topics covered in this section of training.

C-9 Builds masonry walls

C-9.01 Builds non-load bearing walls.

- Select and use tools and equipment
- Determine wall properties
- Install reinforcements
- Build leads
- Cut masonry units
- Maintain bond
- Lay masonry units
- Adjust joint thickness
- Install lintels
- Build in accessories
- Brace and support walls
- Demonstrates knowledge of non-load bearing walls
- Demonstrate knowledge of procedures to build non-load bearing walls

Level Two | 8 weeks | 240 hours

30 hours

Construction Documents 2

- Interpret various types of drawings.
- Use residential construction documents.
- Solve geometric problems in the construction industry.
- Perform material estimating procedures.

RSOS topics covered in this section of training:

A-4 Organizes work

A-4.01 Uses drawings and specifications

- identify requirements
- interpret specifications
- draw sketches
- demonstrate knowledge of drawings and specifications
- demonstrate knowledge of procedures to draw sketches

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42 hours

Basic Masonry Arches

- Identify types of arches and their components
- Calculate arch geometries
- Construct a temporary arch support
- Construct a rough masonry arch

RSOS topics covered in this section of training:

H-23 Builds arches

H-23.01 Prepares location for installation of arch

- determine location of arch
- lay up wall to abutment height
- determine and install reinforcing
- build support system and template
- demonstrate knowledge of arches
- demonstrate knowledge of procedures to prepare location to build arch

H-23.02 Builds template

- determine type, location, span, rise and depth of arch template
- determine structural strength requirements for template
- lay out and cut template
- assemble template
- demonstrate knowledge of arches
- demonstrate knowledge of procedures to construct template

H-23.03 Places template

- position template on support system
- adjust and shim template
- shore template
- demonstrate knowledge of arches
- demonstrate knowledge of procedures to place template

H-23.04 Installs masonry arch units

- determine material lay-up requirements and keystone location
- calculate and cut skewback

- calculate spacing
- calculate number, size and shape of arch masonry units
- shape arch masonry units
- lay arch masonry units
- cut creepers
- install tray and step flashing
- demonstrate knowledge of arches
- demonstrate knowledge of procedures to install arch masonry units

H-23.05 Removes template

- determine if mortar has cured
- remove any shims and shoring materials
- remove template
- clean and point joints in arch soffit
- demonstrate knowledge of arches
- demonstrate knowledge and procedures to remove templates

42 hours

Stone Masonry

- Identify classifications of stone.
- Prepare stone for installation.
- Identify techniques for laying stone.
- Construct a natural full bed stone wall.

RSOS topics covered in this section of training:

D-13 Builds natural stone walls

D-13.01 Prepares natural stone

- cull defective or undesirable stones
- remove debris
- resize units
- dress unit surfaces
- determine anchoring system
- determine style and pattern for stone and joint finish
- demonstrate knowledge of natural stone walls
- demonstrate knowledge of procedures to prepare natural stone

D-13.02 Lays natural stone

- select colour, strength and consistency of mortar
- apply mortar bed
- set stone on mortar bed and plumb
- maintain joint size and alignment
- follow rules of bonding and pattern practices
- tool joints
- demonstrate knowledge of laying natural stone
- demonstrate knowledge of procedures to lay natural stone

D-13.03 Damp cures walls

- mist completed assembly
- apply and secure moist burlap or plastic
- demonstrate knowledge of damp curing walls
- demonstrate knowledge of damp curing walls

30 hours

Surface Bonded Masonry

- Identify surface bonded masonry
- Prepare substrate for surface bonded masonry
- Apply surface bonded masonry units

RSOS topics covered in this section of training:

C-12 Installs surface bonded masonry units

C-12.01 Prepares substrate for surface-bonded masonry units.

- install weatherproofing components
- installs cement board or backing material
- apply scratch coat
- demonstrate knowledge of preparing substrate for surface-bonded masonry units
- demonstrate knowledge of procedures to prepare substrate for surface-bonded masonry units

C-12.02 Applies surface bonded masonry units.

- Dampen substrate and back of surface-bonded masonry unit
- Butter backs of surface-bonded masonry units
- Apply and finish joints for surface-bonded masonry units
- Clean and seal surface-bonded masonry units
- Demonstrate knowledge of installing surface-bonded masonry units
- Demonstrate knowledge of procedures to install surface-bonded masonry units

36 hours

Masonry Restoration 1

- Analyze restoration requirements for existing buildings
- Demonstrate restoration procedures

RSOS topics covered in this section of training:

G-19 Rebuilds masonry work

G-19.01 Disassembles unit masonry

- determine plan of action
- shore surrounding masonry
- record placement of masonry units
- remove mortar and masonry units
- clean salvaged masonry units for reassembly
- store salvaged masonry units
- demonstrate knowledge of rebuilding masonry
- demonstrate knowledge of procedures to disassemble unit masonry

G-19.02 Prepares restoration work area

- removing remaining mortar
- clean and restore or replace accessories
- repair backup wall and existing membrane
- demonstrate knowledge of rebuilding masonry
- demonstrate knowledge of procedures to prepare restoration area

G-19.03 Reinstalls masonry and accessories

- place and secure related accessories

- match appearance and composition of new material to existing material
- lay new or salvaged masonry units
- demonstrate knowledge of rebuilding masonry
- demonstrate knowledge of procedures to reinstall masonry and accessories

G-20 Repairs and cleans existing masonry work

G-20.01 Removes deteriorated masonry units.

- determine and follow plan of action
- shore surrounding masonry
- record placement of masonry units
- document shape, size and finished face of non-salvageable masonry units
- remove mortar and entire or damaged portion of masonry unit
- document failures in material
- clean salvaged masonry units for re-installation
- store salvaged masonry units
- demonstrate knowledge of removing deteriorated masonry units
- demonstrate knowledge of procedures to remove deteriorated masonry units

G-20.02 Repoints joints

- remove deteriorated mortar from existing joints
- clean void
- pre-moisten area to be repointed
- fill, compress and tool joints
- mist joints or cover them with wet burlap
- protect surfaces form environmental conditions
- demonstrate knowledge of repointing joints
- demonstrate knowledge of procedures to repoint joints

G-20.03 Repairs masonry units

- determine and follow plan of action
- drill masonry
- mix repair compound
- fill voids, rebuild portions of existing material, or mould masonry units
- rejoin severed or cracked masonry units
- reattach masonry units to backup wall
- replace deteriorated masonry unit face
- support refaced masonry units
- demonstrate knowledge of repairing masonry units
- demonstrate knowledge of procedures to repair masonry units

G-20.04 Reinstalls masonry units and accessories

- match appearance and composition of existing mortar
- pre-moisten adjacent surfaces
- lay out repaired masonry units
- apply mortar to unit and adjacent surfaces
- compress and tool joints
- mist joints or cover with wet burlap
- demonstrate knowledge of reinstalling masonry units and accessories
- demonstrate knowledge of procedures to reinstall masonry units and accessories

G-20.05 Cleans existing masonry surfaces

- determine cleaning method
- test cleaning method
- mix and apply restoration cleaning agents

- prevent absorption of restoration cleaning agents
- use micro-abrasive cleaners
- rinse cleaned area with water
- demonstrate knowledge of cleaning existing masonry
- demonstrate knowledge of procedures to clean existing masonry

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60 hours

Masonry Systems 2

- Identify load-bearing masonry assemblies
- Identify reinforced masonry principles
- Construct reinforced masonry
- Identify prefabricated masonry
- Construct glass block masonry

RSOS topics covered in this section of training:

C-9 Builds masonry walls

C-9.02 Builds load bearing-walls

- select and use tools and equipment
- determine wall properties
- install reinforcements and structural accessories
- build leads
- cut masonry units
- maintain bond
- lay masonry units
- adjust joint thickness
- shore up openings
- install lintels
- build in accessories
- batter and slope retaining walls
- brace and support walls
- install drainage systems on retaining walls
- demonstrates knowledge of load-bearing walls
- demonstrate knowledge of procedures to build load-bearing walls
- c-11 builds and installs prefabricated masonry

C-11.01 Builds prefabricated masonry

- align and level units of prefabricated masonry
- build panel to gauge
- prepare forms or jigs
- add masonry materials to forms
- remove forms or jigs
- demonstrate knowledge of building and installing prefabricated masonry units
- demonstrate knowledge of procedures to build prefabricated masonry units

C-11.02 Erects prefabricated masonry

- verify that substrate has been prepared using anchoring systems
- align and set panels and anchors in place
- repair damaged masonry on site
- seal joints
- demonstrate knowledge of erecting prefabricated masonry units
- demonstrate knowledge of procedures to erect prefabricated masonry units

H-21 Installs glass blocks

H-21.01 Prepares work area for installation of glass blocks

- determine size of opening or dimension of wall for laying up class blocks
- level base surface
- prepare sill surface
- install track to set glass block
- demonstrate knowledge of glass blocks, their characteristics and applications
- demonstrate knowledge of procedures to install glass blocks

H-21.02 Lays glass blocks

- maintain mortar consistency
- install spacers and expansion strips
- lay up glass blocks
- insert joint reinforcing and anchors
- joint glass blocks
- clean glass blocks
- demonstrate knowledge of glass blocks, their characteristics and applications
- demonstrate knowledge of procedures to install glass blocks

Level Three

*Non-harmonized Level 3 Bricklayer is currently not being taught in Saskatchewan for the 2022/23 schoolyear.

Construction Documents and Sketching

- Interpret specifications and contracts
- Interpret drawings and details for renovations
- Interpret institutional, commercial and industrial type drawings

Refractories

- Common refractory vessels and their use
- Types of refractory materials
- Use of refractory materials

Masonry Restoration

- Describe restoration procedures
- Perform restoration procedures

Estimating

- Estimate of materials for a commercial building
- Estimating procedures for masonry construction

Masonry Overlays

- Decorative wall design
- Decorative wall construction
- Identify procedures in overlay work

Advanced Bricklaying Techniques

- Building layout details
- Layout of the storey pole
- Planning a job

Reinforced Masonry

- Reinforced masonry principles, uses materials and placement
- Construction of reinforced masonry

Trade Mathematics

- Mathematical calculations involving decimals, fractions and percents
- Metric and imperial system of weights and measures
- Trade problems involving algebra
- Building material estimation involving concrete

Masonry Review

- Work related activities
- Masonry systems
- Chimney and fireplace types, masonry heaters and refractory materials
- Construction and layout of masonry arches
- Restoration requirements
- Refractories and corrosion resistant materials
- Miscellaneous masonry

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.

Tools and Equipment

A-2 Uses and maintains tools and equipment

A-2.01 Maintains tools and equipment

- repair or replace defective or damaged tools and equipment
- clean and store tools and equipment
- document tool and equipment maintenance
- identify, tag and remove worn, damaged and defective tools
- lubricate equipment
- sharpen tools
- demonstrate knowledge of maintaining tools and equipment
- demonstrate knowledge of procedures to maintain tools and equipment

A-2.02 Uses rigging, hoisting and lifting equipment.

- select rigging, hoisting and lifting equipment
- locate centre of gravity of load
- secure load
- communicate with personnel involved in lift
- recognize safe lifting locations or points
- calculate weight of material
- operate forklift
- stabilize load during lift
- inspect rigging, hoisting and lifting equipment
- maintain and store rigging, hoisting and lifting equipment
- remove worn, damaged or expired rigging, hoisting and lifting equipment
- demonstrate knowledge of operating and maintaining rigging, hoisting and lifting equipment
- demonstrate knowledge of operating and maintaining material handling equipment
- demonstrate knowledge of procedures to operate and maintain rigging, hoisting and lifting equipment
- demonstrate knowledge of procedures to operate and maintain material handling equipment

A-2.03 Uses access equipment.

- select access equipment
- recognize safe lifting locations
- inspect access equipment
- operate access equipment
- tag and remove defective access equipment
- demonstrate knowledge of operating and maintaining access equipment
- demonstrate knowledge of procedures to operate and maintain access equipment

A-2.03 Uses access equipment.

- select access equipment
- recognize safe lifting locations
- inspect access equipment
- operate access equipment
- tag and remove defective access equipment
- demonstrate knowledge of operating and maintaining access equipment

- demonstrate knowledge of procedures to operate and maintain access equipment

Scaffolding

A-2 Uses and maintains tools and equipment

A-2.01 Maintains tools and equipment

- repair or replace defective or damaged tools and equipment
- clean and store tools and equipment
- document tool and equipment maintenance
- identify, tag and remove worn, damaged and defective tools
- lubricate equipment
- sharpen tools
- demonstrate knowledge of maintaining tools and equipment
- demonstrate knowledge of procedures to maintain tools and equipment

A-2.02 Uses rigging, hoisting and lifting equipment.

- select rigging, hoisting and lifting equipment
- locate centre of gravity of load
- secure load
- communicate with personnel involved in lift
- recognize safe lifting locations or points
- calculate weight of material
- operate forklift
- stabilize load during lift
- inspect rigging, hoisting and lifting equipment
- maintain and store rigging, hoisting and lifting equipment
- remove worn, damaged or expired rigging, hoisting and lifting equipment
- demonstrate knowledge of operating and maintaining rigging, hoisting and lifting equipment
- demonstrate knowledge of operating and maintaining material handling equipment
- demonstrate knowledge of procedures to operate and maintain rigging, hoisting and lifting equipment
- demonstrate knowledge of procedures to operate and maintain material handling equipment

A-2.03 Uses access equipment.

- select access equipment
- recognize safe lifting locations
- inspect access equipment
- operate access equipment
- tag and remove defective access equipment
- demonstrate knowledge of operating and maintaining access equipment
- demonstrate knowledge of procedures to operate and maintain access equipment

Substrate Preparation

B-6 Performs substrate preparation

B-6.01 Prepares vertical substrates and foundations.

- wash and dry substrate
- fill holes and cracks in substrate
- remove glues, old membranes and accessories
- replace deteriorated material
- prime substrate
- fasten mesh to substrate

- demonstrate knowledge of preparing substrates and foundations
- demonstrate knowledge of procedures to prepare substrates and foundations

B-6.02 Applies parging.

- dampen substrate
- apply bonding agents to substrate
- mix parging material
- trowel on parging material to substrate
- demonstrate knowledge of preparing parging
- demonstrate knowledge of procedures to apply parging

B-6.03 Installs anchor and tie systems.

- select type of anchoring/tie systems
- determine vertical and horizontal spacing of anchors and ties
- fasten anchors and ties to substrate
- attach ties to anchors
- demonstrate knowledge of anchoring/tie system
- demonstrate knowledge of procedures to install anchoring/tie systems

B-6.04 Installs membranes and flashing.

- select base flashing
- attach base flashing and membrane
- seal seams and tears to membrane, and cuts and joints in flashing
- complete building envelope
- demonstrate knowledge of membranes and flashings
- demonstrate knowledge of procedures to install membranes and flashings

B-6.05 Installs insulation

- select insulation
- cut and fit insulation
- secure insulation to substrate and membrane
- demonstrate knowledge of insulation
- demonstrate knowledge of procedures to install insulation

Prefabricated Masonry

C-11.01 Builds prefabricated masonry

- align and level units of prefabricated masonry
- build panel to gauge
- prepare forms or jigs
- add masonry materials to forms
- remove forms or jigs
- demonstrate knowledge of building and installing prefabricated masonry units
- demonstrate knowledge of procedures to build prefabricated masonry units

C-11.02 Erects prefabricated masonry

- verify that substrate has been prepared using anchoring systems
- align and set panels and anchors in place
- repair damaged masonry on site
- seal joints
- demonstrate knowledge of erecting prefabricated masonry units
- demonstrate knowledge of procedures to erect prefabricated masonry units

Natural Stone Walls

D-13 Builds natural stone walls

D-13.01 Prepares natural stone

- cull defective or undesirable stones
- remove debris
- resize units
- dress unit surfaces
- determine anchoring system
- determine style and pattern for stone and joint finish
- demonstrate knowledge of natural stone walls
- demonstrate knowledge of procedures to prepare natural stone

D-13.02 Lays natural stone

- select colour, strength and consistency of mortar
- apply mortar bed
- set stone on mortar bed and plumb
- maintain joint size and alignment
- follow rules of bonding and pattern practices
- tool joints
- demonstrate knowledge of laying natural stone
- demonstrate knowledge of procedures to lay natural stone

D-13.03 Damp cures walls

- mist completed assembly
- apply and secure moist burlap or plastic
- demonstrate knowledge of damp curing walls
- demonstrate knowledge of damp curing walls

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 will be implemented progressively. Level one has been implemented in 2022/2023, level two will be 2023/2024 and level three 2024/2025.

SATCC Level One	Transcript Code	Hours	Pan-Canadian Harmonized Level One
Construction Documents 1	BPRT 134	18	Drawings and Specifications • Interpreting residential construction documents and the use of basic math
Tools and Equipment	EQPT 134	24	Uses and Maintains Tools and Equipment
Masonry Materials	MATE 121	12	Clay and Concrete Masonry Materials
Mortars, Grouts and Adhesives	MSON 124	24	Identifying Mortar and Grout Characteristics and Properties • mixing and handling procedures • identifying building code
Layout and Fundamental Tasks	MSON 104	18	Elevations, Jobsite Preparation and Building Layout
Building Enclosure and Substrate Preparation	MSON 105	24	Components, Properties and Characteristics of Building Enclosures • installation procedures • building code requirements
General Safety and Job-Site Communication	SFTY 121	18	Health and Safety Regulations
Scaffolding	SCAF 121	12	Types of Scaffolding and Procedures • rigging and hoisting processes
Masonry Systems 1	MSON 106	90	Masonry Wall Systems
		240	

SATCC Level Two	Transcript Code	Hours	Pan-Canadian Harmonized Level Two
*in context	*in context		*Tools and Equipment
			* Substrate Preparation
			* Scaffolding
Construction Documents 2	BPRT 221	30	Drawing and Specifications • Using residential construction documents • Solve geometric problems and perform material estimating procedures
Basic Masonry Arches	CNST 203	42	Identify Arches and Components • calculate arch geometries • construct masonry arch
Stone Masonry	MSON 200	42	Identify stone • prepare stone for installation • stone laying techniques • stone construction
Surface Bonded Masonry	MSON 204	30	Prepare and apply surface bonded masonry
Masonry Restoration 1	MSON 205	36	Analyze restoration requirements and demonstrate restoration procedures
Masonry Systems 2	MSON 206	60	Identify load-bearing, reinforced, prefabricated and glass block masonry • construct reinforced and glass block masonry
		240	

***Non-harmonized Level 3 Bricklayer is currently not being taught in Saskatchewan for the 2022/23 schoolyear.**

SATCC Level Three	Transcript Code	Hours	Non-Harmonized Level Three
*in context	*in context		*Tools and Equipment
			* Substrate Preparation
			* Natural Stone Walls
			*Scaffolding
			*Prefabricated Masonry
Construction Documents and Sketching	BPRT 320		• Specifications, drawings, details and contracts
Refractories	CNST 323		• Refractory vessels/ materials
Masonry Restoration	MSON 327		• Restoration procedures
Advanced Bricklaying Techniques	MSON 326		• Building layout details/ job planning • Storey poles
Reinforced Masonry	MSON 329		• Reinforced masonry principles
Trade Mathematics	MATH 320		• Building material calculations
Estimating	ESTM 320		• Estimation of materials
Masonry Overlays	MSON 325		• Decorative wall construction
Masonry Review	REV 320		• Review
Practicum	PRAC 320		• Practicum project construction

Exceed Topics

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