

# **Lather (Interior Systems Mechanic)**

## **Guide to Course Content**

**2018**



Online: [www.saskapprenticeship.ca](http://www.saskapprenticeship.ca)

*Recognition:*

*To promote transparency and consistency, this document has been adapted from the 2012 Lather (Interior Systems Mechanic) National Occupational Analysis (Employment and Social Development Canada).*

*A complete version of the Occupational Standard can be found at [www.red-seal.ca](http://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 Lather (Interior Systems Mechanic) 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.

**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 Lather trade:** a chart which outlines the model for SATCC technical training sequencing.

# DESCRIPTION OF THE LATHER (INTERIOR SYSTEMS MECHANIC) TRADE

*Lathers handle, erect and install materials that are components in the construction of all or part of a structure. They lay out and install framework for ceiling systems, interior and exterior walls, floors and roofs. Lathers install various types of ceilings (e.g. suspended, spanned, direct contact), shielded walls (e.g. fire, sound, thermal separation) and various sheathing products. They also perform acoustical installations.*

Materials that lathers install include: cold rolled steel components (e.g. steel studs, tracks, channels), metal door and window frames, stucco wire, vapour barriers and insulation, sheathing products (e.g. gypsum and cement products), specialty architectural products and metal lath.

Lathers are employed by construction companies and drywall contractors. They may also be self-employed. In the residential construction industry, they construct, maintain and renovate from single family housings to multi-story apartments. In the commercial, institutional and industrial construction sectors they build, maintain and renovate structures such as commercial buildings, schools, hospitals and manufacturing complexes.

Lathers work both indoors and outdoors year round. They may specialize in individual aspects of the trade such as layout, wall framing and drywall installation. Lathers use a variety of hand and power tools. The installation of metal stud framing and suspended ceilings often requires the use of lasers and powder-actuated tools.

Key attributes for people in this trade are good eye-hand coordination, the ability to work at heights and the ability to pay attention to detail. Lathers must be able to read and interpret information from drawings, blueprints and specifications. The work may require lifting and positioning heavy building materials in a fast-paced environment. The work is physically demanding and requires the use of personal protective equipment. Workers in this trade carry out their work in teams and independently.

*This analysis recognizes similarities and overlaps with the work of carpenters, sheet metal workers, insulators and drywall tapers. With experience, lathers may act as mentors and trainers to apprentices in the trade. They may also advance to positions such as estimators, supervisors, training coordinators and project managers.*

**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 NAIT in Edmonton, AB or SAIT in Calgary, AB, or Levels One and Two by Prairie Arctic Trades Training in Saskatoon or Regina, SK:

Level One: 8 weeks

Level Two: 8 weeks

Level Three: 8 weeks

The information contained in this guide to course content 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 journey person 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 Level <sup>❶</sup>	Science Credit at Grade Level
Lather (Interior Systems Mechanic)	Grade 10	Grade 10
<p><sup>❶</sup> - (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.)</p> <p>*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.</p> <p>For information about high school curriculum, including Math and Science course names, please see:  <a href="http://www.curriculum.gov.sk.ca/#">http://www.curriculum.gov.sk.ca/#</a></p> <p><b>Individuals not meeting the entrance requirements will be subject to an assessment and any required training</b></p>		

# LATHER (INTERIOR SYSTEMS MECHANIC)

## TASK MATRIX CHART

This chart outlines the major work activities, tasks and sub-tasks from the 2012 Lather (Interior Systems Mechanic) National Occupational Analysis. Each sub-task details the corresponding essential skill and level of training where the content is covered.

### A - OCCUPATIONAL SKILLS

<b>A-1 Maintains tools and equipment</b>	<b>1.01 Maintains hand tools</b>  1	<b>1.02 Maintains power tools</b>  1	<b>1.03 Maintains powder-actuated tools</b>  1	<b>1.04 Maintains gas-actuated tools</b>  1	<b>1.05 Maintains pneumatic tools</b>  1
	<b>1.06 Maintains layout and measuring devices</b>  1				
<b>A-2 Organizes work</b>	<b>2.01 Communicates with others</b>  1,2,3	<b>2.02 Uses documentation</b>  1,2,3	<b>2.03 Uses blueprints and drawings</b>  1,2,3	<b>2.04 Plans daily tasks</b>  3	<b>2.05 Estimates materials and supplies</b>  1,2,3
	<b>2.06 Maintains safe work environment</b>  1				
<b>A-3 Performs routine trade activities</b>	<b>3.01 Performs measurements</b>  1,2,3	<b>3.02 Uses scaffolding and access equipment</b>  1	<b>3.03 Uses jigs and templates</b>  2,3	<b>3.04 Prepares work site</b>  1	<b>3.05 Handles materials, supplies and products</b>  1
	<b>3.06 Lays out work</b>  1,2,3	<b>3.07 Applies sealant and gaskets</b>  1,2	<b>3.08 Uses personal protective equipment (PPE) and safety equipment</b>  1		

## B – FRAMING

<b>B-4 Erects non load-bearing steel assemblies</b>	<b>4.01 Frames non load-bearing walls</b>  1	<b>4.02 Frames spanned ceilings</b>  1	<b>4.03 Frames suspended drywall ceilings</b>  1	<b>4.04 Frames non load-bearing bulkheads</b>  1	<b>4.05 Installs metal door and window frames</b>  1
	<b>4.06 Installs backing</b>  1				
<b>B-5 Erects load-bearing steel assemblies</b>	<b>5.01 Frames load-bearing walls</b>  2	<b>5.02 Frames exterior ceilings and soffits</b>  2	<b>5.03 Frames load-bearing bulkheads</b>  2	<b>5.04 Frames load-bearing floors</b>  2	<b>5.05 Frames load-bearing roofs</b>  2

## C – INTERIOR SYSTEMS

<b>C-6 Installs wall systems and components</b>	<b>6.01 Installs demountable walls</b>  2,3	<b>6.02 Installs drywall</b>  1	<b>6.03 Finishes drywall</b>  1	<b>6.04 Installs drywall trims and mouldings</b>  1	<b>6.05 Installs security mesh</b>  2
	<b>6.06 Installs access panels</b>  1,2				
<b>C-7 Installs ceiling systems</b>	<b>7.01 Installs suspended component ceilings</b>  1,3	<b>7.02 Installs non-suspended ceilings</b>  1,3			
	<b>C-8 Installs access flooring systems</b>	<b>8.01 Installs pedestals and supporting hardware</b>  2	<b>8.02 Installs flooring panels</b>  2		

<b>C-9 Installs sound barriers and lead radiation shielding</b>	<b>9.01 Installs sound barriers</b>  2	<b>9.02 Installs lead radiation shielding</b>  3	
<b>C-10 Installs smoke and fire barriers</b>	<b>10.01 Installs shaft wall systems</b>  2	<b>10.02 Seals penetration</b>  2,3	<b>10.03 Encloses beams, columns and staircases to achieve desired fire rating</b>  2,3

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## D – EXTERIOR SYSTEMS

<b>D-11 Installs insulation and membranes</b>	<b>11.01 Installs thermal insulation</b>  1,2	<b>11.02 Installs interior/exterior membranes</b>  1,2	
<b>D-12 Prepares surface for exterior finishes</b>	<b>12.01 Installs exterior sheathing</b>  1	<b>12.02 Installs lath</b>  2,3	<b>12.03 Installs exterior insulation finish systems (NOT COMMON CORE)</b>  2
<b>D-13 Installs exterior finishes</b>	<b>13.01 Fabricates panels</b>  2	<b>13.02 Installs pre-manufactured panels</b>  2,3	



# TRAINING PROFILE CHART

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

<b>Level One</b>	<b>Hours</b>
Codes, Regulations and General Safety	16
Tools, Equipment and Materials	17
Walls	45
Exterior Stucco Preparation	10
Drywall Applications	46
Component Ceiling Systems	30
Air and Moisture Barriers	12
Blueprint Reading	36
Trade Mathematics	28
	240

<b>Level Two</b>	<b>Hours</b>
Fire Resistive and Acoustical Ratings	8
Wind/Load Bearing Wall and Floor Systems	30
Metal Lath Partitions, Walls and Ceilings	14
Shaft Wall Systems	28
Component and Specialty Ceiling Systems	40
Demountable Partition Systems	20
Specialized Systems	28
Exterior Insulation Finish Systems (EIFS)	24
Blueprint Reading	36
Trade Mathematics	12
	240

<b>Level Three</b>	<b>Hours</b>
Advanced Ceiling Systems	56
Renovations, Walls and Fireproofing	30
Specialized Environments	10
Blueprint Reading	63
Business Fundamentals	41
Final Period Practical Project	40
	240

# TECHNICAL TRAINING COURSE CONTENT

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

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<b>Level One</b>	<b>8 weeks</b>	<b>240 hours</b>
<b>Codes, Regulations and Safety</b>		<b>16 hours</b>
<ul style="list-style-type: none"><li>• construction safety</li><li>• project organization</li><li>• study of regulations</li><li>• fire prevention and controls</li><li>• introduction to WHMIS</li></ul>		
<b>NOA topics covered in this section of training:</b>		
<b>A-2 Organizes work</b>		
<ul style="list-style-type: none"><li>• 2.06 maintains safe work environment</li></ul>		
<b>A-3 Performs routine trade activities</b>		
<ul style="list-style-type: none"><li>• 3.06 lays out work</li><li>• 3.08 uses personal protective equipment (PPE) and safety equipment</li></ul>		
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<b>Tools, Equipment and Materials</b>		<b>17 hours</b>
<ul style="list-style-type: none"><li>• hand and power tools</li><li>• scaffolding</li><li>• materials</li><li>• explosive actuated tools</li></ul>		
<b>NOA topics covered in this section of training:</b>		
<b>A-1 Maintains tools and equipment</b>		
<ul style="list-style-type: none"><li>• 1.01 maintains hand tools</li><li>• 1.02 maintains power tools</li><li>• 1.03 maintains powder-actuated tools</li><li>• 1.04 maintains gas-actuated tools</li><li>• 1.05 maintains pneumatic tools</li><li>• 1.06 maintains layout and measuring devices</li></ul>		
<b>A-3 Performs routine trade activities</b>		
<ul style="list-style-type: none"><li>• 3.02 uses scaffolding and access equipment</li><li>• 3.04 prepares work site</li><li>• 3.05 handles materials, supplies and products</li><li>• 3.07 applies sealants and gaskets</li></ul>		
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<b>Walls</b>		<b>45 hours</b>
<ul style="list-style-type: none"><li>• various types and specifications</li><li>• materials and erection</li><li>• metal framing</li><li>• furring systems on existing walls</li><li>• preparations for other trades</li><li>• application of insulation in walls and ceilings</li></ul>		
<b>NOA topics covered in this section of training:</b>		
<b>B-4 Erects non-load bearing steel assemblies</b>		
<ul style="list-style-type: none"><li>• 4.01 frames non load-bearing walls</li></ul>		

- 4.05 installs metal door and window frames
- 4.06 installs backing

**C-6 Installs wall systems and components**

- 6.06 installs access panels

**D-11 Installs insulation and membranes**

- 11.01 installs thermal insulation
- 11.02 installs interior/exterior membranes

**Exterior Stucco Preparation**

**10 hours**

- sheathing and building paper
- stucco wire and coatings

**NOA topics covered in this section of training:**

**D-12 Prepares surface for exterior finishes**

- 12.01 installs exterior sheathing

**Drywall Applications**

**46 hours**

- application, layout and installation
- taping
- drywall ceiling systems

**NOA topics covered in this section of training:**

**B-4 Erects non-load bearing steel assemblies**

- 4.02 frames spanned ceilings
- 4.03 frames suspended drywall ceilings
- 4.04 frames non load-bearing bulkheads

**C-6 Installs wall systems and components**

- 6.02 installs drywall
- 6.03 finishes drywall (NOT COMMON CORE)
- 6.04 installs drywall trims and mouldings
- 6.06 installs access panels

**Component Ceiling Systems**

**30 hours**

- component ceilings
- component baffles

**NOA topics covered in this section of training:**

**C-7 Installs ceiling systems**

- 7.01 installs suspended component ceilings
- 7.02 installs non-suspended ceilings

**D-11 Installs insulation and membranes**

- 11.01 installs thermal insulation

**Air and Moisture Barriers**

**12 hours**

- application of air and moisture barriers
- barrier failures
- exterior insulation finish systems (EIFS)

**NOA topics covered in this section of training:**

**D-11 Installs insulation and membranes**

- 11.02 installs interior/exterior membranes

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**Blueprint Reading****36 hours**

- drawing instruments and techniques
- freehand sketching
- drawing to specifications
- blueprint interpretation

**NOA topics covered in this section of training:****A-2 Organizes work**

- 2.02 uses documentation
- 2.03 uses blueprints and drawings
- 2.05 estimates materials and supplies

**A-3 Performs routing trade activities**

- 3.06 lays out work
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**Trade Mathematics****28 hours**

- basic applied mathematics
- trade problems from basic plans and specifications
- metric systems

**NOA topics covered in this section of training:****A-2 Organizes work**

- 2.03 uses blueprints and drawings
- 2.05 estimates materials and supplies

**A-3 Performs routing trade activities**

- 3.01 performs measurements
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**Level Two****8 weeks****240 hours**

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**Fire Resistive and Acoustical Ratings****8 hours**

- fire and sound ratings
- wall and ceiling designs

**NOA topics covered in this section of training:****A-3 Performs routing trade activities**

- 3.07 applies sealants and gaskets

**C-6 Installs wall systems and components**

- 6.06 installs access panels

**C-9 Installs sound barriers and lead radiation shielding**

- 9.01 installs sound barriers

**C-10 Installs smoke and fire barriers**

- 10.02 seals penetrations
  - 10.03 encloses beams, columns and staircases to achieve desired fire rating
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**Wind/Load Bearing Wall and Floor Systems****30 hours**

- wind bearing framing systems
- composite metal floor systems and load bearing walls
- access floor systems

**NOA topics covered in this section of training:****B-5 Erects load-bearing steel assemblies**

- 5.01 frames load-bearing walls
- 5.03 frames load-bearing bulkheads

- 5.04 frames load-bearing floors
- 5.05 frames load-bearing roofs

**C-8 Installs access flooring systems**

- 8.01 installs pedestals and supporting hardware
- 8.02 installs flooring panels

**Metal Lath Partitions, Walls and Ceilings**

**14 hours**

- fabrication of metal lath partitions, walls and ceilings

**NOA topics covered in this section of training:**

**D-12 Prepares surface for exterior finishes**

- 12.02 installs lath

**Shaft Wall Systems**

**28 hours**

- shaft wall fabrications
- plenum barriers

**NOA topics covered in this section of training:**

**C-6 Installs wall systems and components**

- 6.05 installs security mesh

**C-10 Installs smoke and fire barriers**

- 10.01 installs shaft wall systems

**D-11 Installs insulation and membranes**

- 11.01 installs thermal insulation

**D-12 Prepares surface for exterior finishes**

- 12.02 installs lath

**Component and Specialty Ceiling Systems**

**40 hours**

- concealed suspension ceiling system
- reveal grid and ceiling tile system
- metal linear ceiling systems
- specialty ceilings

**NOA topics covered in this section of training:**

**A-3 Performs routing trade activities**

- 3.03 uses jigs and templates

**Demountable Partition Systems**

**20 hours**

- components and installation

**NOA topics covered in this section of training:**

**C-6 Installs wall systems and components**

- 6.01 installs demountable walls

**Specialized Systems**

**28 hours**

- pre-cast plaster, glass fibre and reinforced gypsum
- component wall treatment and baffles
- jigs and templates

**NOA topics covered in this section of training:**

**A-3 Performs routing trade activities**

- 3.03 uses jigs and templates

**B-5 Erects load-bearing steel assemblies**

- 5.02 frames exterior ceilings and soffits

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### **Blueprint Reading**

**36 hours**

- blueprints for commercial building
- isolating the lather – drywall and acoustical mechanic work
- amplifying drawings with notes
- freehand pictorial drawings
- specified shop projects

**NOA topics covered in this section of training:**

**A-2 Organizes work**

- 2.02 uses documentation
- 2.03 uses blueprints and drawings
- 2.05 estimates materials and supplies

**A-3 Performs routing trade activities**

- 3.06 lays out work

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### **Exterior Insulation Finish Systems (EIFS)**

**24 hours**

- panelization
- on-site application
- air and moisture barriers

**NOA topics covered in this section of training:**

**D-11 Installs insulation and membranes**

- 11.02 installs interior/exterior membranes

**D-12 Prepares surface for exterior finishes**

- 12.03 installs exterior insulation finish systems (EIFS) (NOT COMMON CORE)

**D-13 Installs exterior finishes**

- 13.01 fabricates panels
- 13.02 installs pre-manufactured panels

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### **Trade Mathematics**

**12 hours**

- trade calculations

**NOA topics covered in this section of training:**

**A-2 Organizes work**

- 2.03 uses blueprints and drawings
- 2.05 estimates materials and supplies

**A-3 Performs routing trade activities**

- 3.01 performs measurements

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## **Level Three**

**8 weeks**

**240 hours**

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### **Advanced Ceiling Systems**

**56 hours**

- adjustments and adaptations from regular layouts
- component ceilings
- groined drywall and domed metal lath ceiling
- specialty ceilings
- development and use of jigs and templates
- trim and finish components

**NOA topics covered in this section of training:**

**A-2 Organizes work**

- 2.05 estimates materials and supplies

**A-3 Performs routing trade activities**

- 3.01 performs measurements
- 3.03 uses jigs and templates

**C-7 Installs ceiling systems**

- 7.01 installs suspended component ceilings
- 7.02 installs non-suspended ceilings

**D-12 Prepares surface for exterior finishes**

- 12.02 installs lath

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**Renovations, Walls and Fireproofing**

**30 hours**

- demountable partition systems
- fireproofing
- renovations and additions

**NOA topics covered in this section of training:**

**C-6 Installs wall systems and components**

- 6.01 installs demountable walls

**C-10 Installs smoke and fire barriers**

- 10.02 seals penetrations
- 10.03 encloses beams, columns and staircases to achieve desired fire rating

**D-13 Installs exterior finishes**

- 13.02 installs pre-manufactured panels

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**Specialized Environments**

**10 hours**

- introduction to specialized environments
- radiation protective systems

**NOA topics covered in this section of training:**

**C-9 Installs sound barriers and lead radiation shielding**

- 9.02 installs lead radiation shielding

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**Blueprint Reading**

**63 hours**

- specifications
- blueprints with emphasis on drywall and acoustical mechanic
- working drawings
- job organization

**NOA topics covered in this section of training:**

**A-2 Organizes work**

- 2.02 uses documentation
- 2.03 uses blueprints and drawings
- 2.05 estimates materials and supplies

**A-3 Performs routing trade activities**

- 3.06 lays out work

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**Business Fundamentals**

**41 hours**

- documents and forms
- trade math
- workplace coaching skills
- interprovincial standards

**NOA topics covered in this section of training:**

**A-2 Organizes work**

- 2.02 uses documentation
- 2.04 plans daily tasks
- 2.05 estimates materials and supplies

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**Final Period Practical Project****40 hours**

- Final period practical examination

**NOA topics covered in this section of training:****No specific NOA topic covered**