Lather (Interior Systems Mechanic)

Guide to Course Content

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Recognition:
To promote transparency and consistency, this document has been adapted from the 2021 Lather (Interior Systems Mechanic) Red Seal Occupational Standard (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:

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. The Task Matrix is broken down into the following:

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 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.

TRAINING REQUIREMENTS FOR THE LATHER (INTERIOR SYSTEMS MECHANIC) TRADE

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 5400 hours and at least 3 years in the trade.

There are three levels of technical training delivered by NAIT in Edmonton, AB or SAIT in Calgary, AB:

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 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.

Designated Trade Name	**Math Credit** at the Indicated Grade Level❶	**Science Credit** at Grade Level
Lather (Interior Systems Mechanic)	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

LATHER (INTERIOR SYSTEMS MECHANIC)
TASK MATRIX

This chart outlines the major work activities, tasks and sub-tasks from the 2021 Lather (Interior Systems Mechanic) Red Seal Occupational Standard. Each sub-task details the corresponding essential skill.

A - Performs common occupational skills — 21%

Task A-1 Performs safety-related functions	1.01 Maintains safe work environment	1.02 Uses personal protective equipment (PPE) and safety equipment			
Task A-2 Uses tools and equipment	2.01 Uses hand tools	2.02 Uses power tools	2.03 Uses powder-actuated tools	2.04 Uses gas-actuated tools	2.05 Uses pneumatic tools
	2.06 Uses layout and measuring devices	A-2.07 Uses scaffolding and access equipment			
Task A-3 Organizes work	3.01 Uses documentation and reference materials	3.02 Uses blueprints and drawings	3.03 Plans project tasks	3.04 Estimates materials and supplies	
Task A-4 Performs routine trade activities	4.01 Performs measurements	4.02 Uses jigs and templates	4.03 Handles materials, supplies, and products	4.04 Lays out work	4.05 Applies sealants and gaskets

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

B – Performs framing activities — 30%

Task B-6 Erects non-loadbearing steel assemblies	6.01 Frames non-loadbearing walls	6.02 Frames spanned ceilings	6.03 Frames suspended drywall ceilings	6.04 Frames non-loadbearing bulkheads	6.05 Installs metal door and window frames
	6.06 Installs backing				
Task B-7 Erects loadbearing steel assemblies	7.01 Frames loadbearing walls	7.02 Frames exterior ceilings and soffits	7.03 Frames loadbearing bulkheads	7.04 Frames loadbearing floors	7.05 Frames loadbearing roofs

C – Installs interior systems

36%

Task C-8 **Installs wall systems and components**	**8.01 Installs demountable walls**	**8.02 Installs drywall**	**8.03 Finishes drywall**	**8.04 Installs drywall trims and mouldings**	**8.05 Installs security mesh**
	8.06 Installs access panels				
Task C-9 **Installs ceiling systems**	**9.01 Installs suspended ceiling**	**9.02 Installs non-suspended ceilings**			
Task C-10 Install access flooring systems	**10.01 Installs pedestals and supporting hardware**	**10.02 Installs flooring panels**			
Task C-11 Installs sound barriers and lead radiation shielding	**11.01 Installs sound barriers**	**11.02 Installs lead radiation shielding**			
Task C-12 Installs smoke and fire barriers	**12.01 Installs shaft wall systems**	**12.02 Seals penetrations**	**12.03 Encloses beams, columns and staircases to achieve desired fire rating**		

D – Installs exterior systems

13%

Task D-13 Installs insulation and membranes	**13.01 Installs thermal insulation**	**13.02 Installs interior/exterior membranes**	
Task D-14 Prepares surface for exterior finishes	**14.01 Installs exterior sheathing**	**14.02 Installs lath**	**14.03 Installs exterior insulation finish system (EIFS)**
Task D-15 Installs exterior finishes	**15.01 Fabricates panels**	**15.02 Installs pre-manufactured panels**	

TRAINING PROFILE CHART

This Training Profile Chart represents NAIT and SAIT training at the topic level.

Level One
Codes, Regulations and General Safety
Tools, Equipment and Materials
Walls
Exterior Stucco Preparation
Drywall Applications
Component Ceiling Systems
Air and Moisture Barriers
Blueprint Reading
Trade Mathematics

Level Two
Fire Resistive and Acoustical Ratings
Wind/Load Bearing Wall and Floor Systems
Metal Lath Partitions, Walls and Ceilings
Shaft Wall Systems
Component and Specialty Ceiling Systems
Demountable Partition Systems
Specialized Systems
Exterior Insulation Finish Systems (EIFS)
Blueprint Reading
Trade Mathematics

Level Three
Advanced Ceiling Systems
Renovations, Walls and Fireproofing
Specialized Environments
Blueprint Reading
Business Fundamentals
Final Period Practical Project

TECHNICAL TRAINING COURSE CONTENT

This chart outlines the model for Alberta's NAIT and SAIT technical training.

Level One 8 weeks

Codes, Regulations and Safety

- construction safety
- project organization
- study of regulations
- fire prevention and controls
- introduction to WHMIS

Tools, Equipment and Materials

- hand and power tools
- scaffolding
- materials
- explosive actuated tools

Walls

- various types and specifications
- materials and erection
- metal framing
- furring systems on existing walls
- preparations for other trades
- application of insulation in walls and ceilings

Exterior Stucco Preparation

- sheathing and building paper
- stucco wire and coatings

Drywall Applications

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

Component Ceiling Systems

- component ceilings
- component baffles

Air and Moisture Barriers

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

Blueprint Reading

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

Trade Mathematics

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

Level Two 8 weeks

Fire Resistive and Acoustical Ratings

- fire and sound ratings
- wall and ceiling designs

Wind/Load Bearing Wall and Floor Systems

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

Metal Lath Partitions, Walls and Ceilings

- fabrication of metal lath partitions, walls and ceilings

Shaft Wall Systems

- shaft wall fabrications
- plenum barriers

Component and Specialty Ceiling Systems

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

Demountable Partition Systems

- components and installation

Specialized Systems

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

Blueprint Reading

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

Exterior Insulation Finish Systems (EIFS)

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

Trade Mathematics

- trade calculations

Level Three 8 weeks

Advanced Ceiling Systems

- 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

Renovations, Walls and Fireproofing

- demountable partition systems
- fireproofing
- renovations and additions

Specialized Environments

- introduction to specialized environments
- radiation protective systems

Blueprint Reading

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

Business Fundamentals

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

Final Period Practical Project

- Final period practical examination