

# NOVA SCOTIA PROGRAM OF STUDY LATHER (INTERIOR SYSTEMS MECHANIC)

Based on the Red Seal Occupational Standard

NSCS V1 | 2023

# Nova Scotia Apprenticeship Program of Study

Lather (Interior Systems Mechanic)

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# Program Overview

#### Level 1

| Code     | Self-directed Learning Modules | Code     | Self-directed Learning Modules     |
|----------|--------------------------------|----------|------------------------------------|
| MENT-700 | Mentoring I                    | LTR -120 | Non-Loadbearing Steel Assemblies I |
| LTR -105 | Safety                         | LTR -125 | Wall Systems and Components I      |
| LTR -110 | Tools and Equipment            | LTR -130 | Insulation                         |
| LTR -115 | Drawings, Layout and Planning  |          |                                    |

#### Level 2

| Code    | Self-directed Learning Modules         | Code     | Self-directed Learning Modules |
|---------|--|----------|--------------------------------|
| LTR-200 | Loadbearing Steel Assemblies           | LTR-215  | Ceiling Systems                |
| LTR-205 | Non-Loadbearing Steel<br>Assemblies II | LTR-220  | Sound Barriers                 |
| LT -210 | Wall Systems and Components            | LTR -225 | Smoke and Fire Barriers        |

| Code     | Self-directed Learning Modules | Code     | Self-directed Learning Modules |
|----------|--------------------------------|----------|--------------------------------|
| MENT-701 | Mentoring II                   | LTR-315  | Exterior Systems               |
| LTR -305 | Access Flooring Systems        | LTR -320 | Program Review                 |
| LTR -310 | Lead Radiation Shielding       |          |                                |

# Program Structure

| Code         | Learning Modules    |         | Learning Outcomes   |
|--------------|---------------------|---------|---|
| MENT-700 Mer | Mentoring I         | 1       | Demonstrate knowledge of effective communication practices as a learner.  |
|              |                     | 2       | Demonstrate knowledge of strategies for learning skills in the workplace.   |
| LTR-105      | Safety              | 1       | Demonstrate knowledge of personal<br>protective equipment (PPE) and safety<br>equipment, their applications,<br>maintenance and procedures for use. |
|              |                     | 2       | Demonstrate knowledge of maintaining a safe work environment.   |
|              |                     | 3       | Demonstrate knowledge of regulatory requirements pertaining to safety, PPE and safety equipment.  |
| LTR -110     | Tools and Equipment | oment 1 | Demonstrate knowledge of hand tools,<br>their applications, maintenance and<br>procedures for use.  |
|              |                     | 2       | Demonstrate knowledge of power tools<br>and equipment, their applications,<br>maintenance and procedures for use.                                   |
|              |                     | 3       | Demonstrate knowledge of layout and<br>measuring devices, their applications,<br>maintenance and procedures for use.                                |
|              |                     | 4       | Demonstrate knowledge of access<br>equipment, their applications,<br>maintenance and procedures for use.  |

| Code    | Learning Modules                      |   | Learning Outcomes  |
|---------|---------------------------------------|---|--|
|         |                                       | 5 | Demonstrate knowledge of regulatory requirements pertaining to access equipment                                    |
|         |                                       | 6 | Demonstrate knowledge of jigs and templates, their characteristics and applications.                               |
|         |                                       | 7 | Demonstrate knowledge of procedures to build jigs and templates.   |
| LTR-115 | Drawings, Layout and Planning         | 1 | Demonstrate knowledge of drawings and specifications and their applications.                                       |
|         |                                       | 2 | Demonstrate knowledge of procedures to<br>interpret and extract information from<br>drawings and specifications.   |
|         |                                       | 3 | Demonstrate knowledge of basic layout procedures.  |
|         |                                       | 4 | Uses documentation and reference materials.  |
|         |                                       | 5 | Demonstrate knowledge of procedures to plan project tasks.   |
|         |                                       | 6 | Demonstrate knowledge of procedures to handle and store materials, supplies and products.                          |
| LTR-120 | Non-Loadbearing Steel<br>Assemblies I | 1 | Demonstrate knowledge of non-<br>loadbearing assemblies, their<br>components, characteristics and<br>applications. |
|         |                                       | 2 | Demonstrate knowledge of procedures used to frame non-loadbearing walls.   |

| Code    | Learning Modules                 | Learning Outcomes |  |  |
|---------|----------------------------------|-------------------|--|--|
|         |                                  | 3                 | Demonstrate knowledge of procedures used to frame spanned ceilings.                    |  |
|         |                                  | 4                 | Demonstrate knowledge of procedures used to frame suspended drywall ceilings.          |  |
|         |                                  | 5                 | Demonstrate knowledge of procedures<br>used to frame non-loadbearing<br>bulkheads.     |  |
|         |                                  | 6                 | Demonstrate knowledge of procedures used to install metal door frames.                 |  |
| LTR-125 | Wall Systems and<br>Components I | 1                 | Demonstrate knowledge of drywall, its characteristics and applications.                |  |
|         |                                  | 2                 | Demonstrate knowledge of procedures to install drywall                                 |  |
|         |                                  | 3                 | Demonstrate knowledge of procedures to install access panels.                          |  |
| LTR-130 | LTR-130 Insulation               | 1                 | Demonstrate knowledge of sealants and gaskets, their characteristics and applications. |  |
|         |                                  | 2                 | Demonstrate knowledge of thermal insulation, their characteristics and applications.   |  |
|         |                                  | 3                 | Demonstrate knowledge of procedures to install thermal insulation.                     |  |

| Code    | Learning Modules                       |   | Learning Outcomes  |
|---------|--|---|--|
| LTR-200 | LTR-200 Loadbearing Steel Assemblies   | 1 | Demonstrate knowledge of loadbearing<br>steel assemblies, their components,<br>characteristics and applications. |
|         |  | 2 | Demonstrate knowledge of procedures used to frame loadbearing walls.   |
|         |  | 3 | Demonstrate knowledge of procedures used to frame exterior ceilings and soffits.                                 |
|         |  | 4 | Demonstrate knowledge of procedures used to frame loadbearing bulkheads.   |
|         |  | 5 | Demonstrate knowledge of procedures used to frame loadbearing floors.  |
| LTR-205 | Non-Loadbearing Steel<br>Assemblies II | 1 | Demonstrate knowledge of metal<br>window frames, their characteristics and<br>applications.                      |
|         |  | 2 | Demonstrate knowledge of procedures used to install metal window frames.   |
|         |  | 3 | Demonstrate knowledge of procedures to install backing.  |
| LTR-210 | Wall Systems and Components<br>II      | 1 | Demonstrate knowledge of procedures to install demountable walls.  |
|         |  | 2 | Demonstrate knowledge of procedures to finish drywall.   |
|         |  | 3 | Demonstrate knowledge of procedures to install drywall trims and mouldings.                                      |
|         |  | 4 | Demonstrate knowledge of procedures to install security mesh.  |

| Code    | Learning Modules                |   | Learning Outcomes  |
|---------|---------------------------------|---|--|
| LTR-215 | LTR-215 Ceiling Systems         | 1 | Demonstrate knowledge of suspended ceilings, their components, characteristics and applications.                     |
|         |                                 | 2 | Demonstrate knowledge of procedures used to install suspended ceilings.  |
|         |                                 | 3 | Demonstrate knowledge of non-<br>suspended ceilings, their components,<br>characteristics and applications.          |
|         |                                 | 4 | Demonstrate knowledge of procedures used to install non-suspended ceilings.  |
| LTR-220 | LTR-220 Sound Barriers          | 1 | Demonstrate knowledge of sound barriers, their characteristics and applications.                                     |
|         |                                 | 2 | Demonstrate knowledge of procedures used to install sound barriers.  |
| LTR-225 | LTR-225 Smoke and Fire Barriers | 1 | Demonstrate knowledge of shaft wall<br>systems, their components,<br>characteristics and applications.               |
|         |                                 | 2 | Demonstrate knowledge of procedures used to install shaft wall systems.  |
|         |                                 | 3 | Demonstrate knowledge penetrations, their characteristics and applications.  |
|         |                                 | 4 | Demonstrate knowledge of procedures used to seal penetrations.   |
|         |                                 | 5 | Demonstrate knowledge procedures used<br>to enclose beams, columns and staircases<br>to achieve desired fire rating. |

| Code     | Learning Modules                |   | Learning Outcomes   |
|----------|---------------------------------|---|---|
| MENT-701 | Mentoring II                    | 1 | Demonstrate knowledge of effective communication practices as a mentor.                             |
|          |                                 | 2 | Demonstrate knowledge of strategies for teaching workplace skills.                                  |
| LTR-305  | LTR-305 Access Flooring Systems | 1 | Demonstrate knowledge of access<br>flooring systems, their characteristics and<br>applications.     |
|          |                                 | 2 | Demonstrate knowledge of procedures to<br>install pedestals and supporting<br>hardware.             |
|          |                                 | 3 | Demonstrate knowledge of procedures to install floor panels.  |
| LTR-310  | Lead Radiation Shielding        | 1 | Demonstrate knowledge of lead radiation<br>shielding, their characteristics and<br>applications.    |
|          |                                 | 2 | Demonstrate knowledge of lead inspection process for radiation.                                     |
|          |                                 | 3 | Demonstrate knowledge of procedures to install lead radiation shielding.                            |
| LTR-315  | Exterior Systems                | 1 | Demonstrate knowledge of<br>interior/exterior membranes, their<br>characteristics and applications. |
|          |                                 | 2 | Demonstrate knowledge of procedures to install interior/exterior membranes.                         |
|          |                                 | 3 | Demonstrate knowledge of procedures to install exterior sheathing.                                  |

| Code    | Learning Modules        | Learning Outcomes |   |  |
|---------|-------------------------|-------------------|---|--|
|         |                         | 4                 | Demonstrate knowledge of procedures to install lath.  |  |
|         |                         | 5                 | Demonstrate knowledge of procedures to fabricate panels.  |  |
|         |                         | 6                 | Demonstrate knowledge of procedures to install pre-manufactured panels.                                 |  |
| LTR-320 | LTR-320 Program Reviews | 1                 | Demonstrate knowledge of the<br>Occupational Standard and its<br>relationship to the Red Seal Exam.     |  |
|         |                         | 2                 | Demonstrate knowledge of overall<br>comprehension of the trade in<br>preparation for the Red Seal Exam. |  |

# 2022 Occupational Standard Sub-task to Learning Module Comparison

| Sub-task Learning Modules |   |              |                               |  |
|---------------------------|---|--------------|-------------------------------|--|
| Task A-1 –                | - Performs safety-related functions                           |              |                               |  |
| A-1.01                    | Maintains safe work environment                               | LTR-105      | Safety                        |  |
| A-1.02                    | Uses personal protective equipment (PPE) and safety equipment | LTR-105      | Safety                        |  |
| Task A-2 –                | <ul> <li>Uses tools and equipment</li> </ul>                  |              |                               |  |
| A-2.01                    | Uses hand tools   | LTR-110      | Tools and Equipment           |  |
| A-2.02                    | Uses power tools and equipment                                | LTR-110      | Tools and Equipment           |  |
| A-2.03                    | Uses powder-actuated tools                                    | LTR-110      | Tools and Equipment           |  |
| A-2.04                    | Uses gas-actuated tools                                       | LTR-110      | Tools and Equipment           |  |
| A-2.05                    | Uses pneumatic tools (NOT<br>COMMON CORE)                     | LTR-110      | Tools and Equipment           |  |
| A-2.06                    | Uses layout and measuring devices                             | LTR-110      | Tools and Equipment           |  |
| A-2.07                    | Uses scaffolding and access equipment                         | LTR-110      | Tools and Equipment           |  |
| Task A-3 –                | - Organizes work  |              |                               |  |
| A-3.01                    | Uses documentation and<br>reference materials                 | LTR-115      | Drawings, Layout and Planning |  |
| A-3.02                    | Uses blueprints and drawings                                  | LTR -115     | Drawings, Layout and Planning |  |
| A-3.03                    | Plans project tasks   | LTR -115     | Drawings, Layout and Planning |  |
| A-3.04                    | Estimates materials and supplies                              | LTR -115     | Drawings, Layout and Planning |  |
| Task A-4 –                | - Performs routine trade activities                           |              |                               |  |
| A-4.01                    | Performs measurements   | LTR-15       | Drawings, Layout and Planning |  |
| A-4.02                    | Uses jigs and templates                                       | LTR-110      | Tools and Equipment           |  |
| A-4.03                    | Handles materials, supplies and products                      | LTR-105      | Drawings, Layout and Planning |  |
| A-4.04                    | Lays out work   | LTR-115      | Drawings, Layout and Planning |  |
| A-4.05                    | Applies sealants and gaskets                                  | LTR-130      | Insulation                    |  |
| Task A-5 –                | - Uses communication and mentorin                             | g techniques |                               |  |
| A-5.01                    | Uses communication techniques                                 | MENT-700     | Mentoring I                   |  |
|                           |   | MENT-701     | Mentoring II                  |  |
| A-5.02                    | Uses mentoring techniques                                     | MENT-700     | Mentoring I                   |  |
|                           |   | MENT-701     | Mentoring II                  |  |

| Sub-task   |  | Learning Modules |  |  |  |
|--|--|------------------|--|--|--|
| Task B-6 – Erects non-leadbearing steel assemblies |  |                  |  |  |  |
| B-6.01   | Frames non-loadbearing walls               | LTR-120          | Non-Loadbearing Steel<br>Assemblies I  |  |  |
| B-6.02   | Frames spanned ceilings                    | LTR-120          | Non-Loadbearing Steel<br>Assemblies I  |  |  |
| B-6.03   | Frames suspended drywall<br>ceilings       | LTR-120          | Non-Loadbearing Steel<br>Assemblies I  |  |  |
| B-6.04   | Frames non-loadbearing<br>bulkheads        | LTR-120          | Non-Loadbearing Steel<br>Assemblies I  |  |  |
| B-6.05   | Installs metal door and window frames      | LTR-120          | Non-Loadbearing Steel<br>Assemblies I  |  |  |
|  |  | LTR-205          | Non-Loadbearing Steel<br>Assemblies II |  |  |
| B-6.06   | Installs backing                           | LTR-205          | Non-Loadbearing Steel<br>Assemblies II |  |  |
| Task B-7 – Erects loadbearing steel assemblies     |  |                  |  |  |  |
| B-7.01   | Frames loadbearing walls                   | LTR-200          | Loadbearing Steel Assemblies           |  |  |
| B-7.02   | Frames exterior ceilings and<br>soffits    | LTR-200          | Loadbearing Steel Assemblies           |  |  |
| B-7.03   | Frames loadbearing bulkheads               | LTR-200          | Loadbearing Steel Assemblies           |  |  |
| B-7.04   | Frames loadbearing floors                  | LTR-200          | Loadbearing Steel Assemblies           |  |  |
| B-7.05   | Frames loadbearing roofs                   | LTR-200          | Loadbearing Steel Assemblies           |  |  |
| Task C-8 – Installs wall systems and components    |  |                  |  |  |  |
| C-8.01   | Installs demountable walls                 | LTR-210          | Wall Systems and Components II         |  |  |
| C-8.02   | Installs drywall                           | LTR-125          | Wall Systems and Components I          |  |  |
| C-8.03   | Finishes drywall                           | LTR-210          | Wall Systems and Components II         |  |  |
| C-8.04   | Installs drywall trims and<br>moldings     | LTD-210          | Wall Systems and Components II         |  |  |
| C-8.05   | Installs security mesh                     | LTD-210          | Wall Systems and Components II         |  |  |
| C-8.06   | Installs access panels                     | LTR-125          | Wall Systems and Components I          |  |  |
| Task C-9 – Installs ceiling systems                |  |                  |  |  |  |
| C-9.01   | Installs suspended ceilings                | LTR-215          | Ceiling Systems                        |  |  |
| C-9.02   | Installs non-suspended ceilings            | LTR-215          | Ceiling Systems                        |  |  |
| Task C-10 – Installs access flooring systems       |  |                  |  |  |  |
| B-10.01  | Installs pedestals and supporting hardware | LTR-305          | Access Flooring Systems                |  |  |
| B-10.02  | Installs floor panels                      | LTR-305          | Access Flooring Systems                |  |  |

| Sub-task   |   | Learning Modules |                          |  |  |
|--|---|------------------|--------------------------|--|--|
| Task C-11 – Installs sound barriers and lead radiation shielding |   |                  |                          |  |  |
| C-11.01  | Installs sound barriers   | LTD-220          | Sound Barriers           |  |  |
| C-11.02  | Installs lead radiation shielding   | LTD-310          | Lead Radiation Shielding |  |  |
| Task C-12 – Installs smoke and fire barriers                     |   |                  |                          |  |  |
| C-12.01  | Installs shaft wall systems   | LTD-225          | Smoke and Fire Barriers  |  |  |
| C-12.02  | Seals penetrations  | LTD-225          | Smoke and Fire Barriers  |  |  |
| C-12.03  | Encloses beams, columns and staircases to achieve desired fire rating     | LTD-225          | Smoke and Fire Barriers  |  |  |
| Task D-13 – Installs insulation and membranes                    |   |                  |                          |  |  |
| D-13.01  | Installs thermal insulation   | LTD-130          | Insulation               |  |  |
| D-13.02  | Installs interior/exterior membranes                                      | LTD-315          | Exterior Systems         |  |  |
| Task D-14 – Prepares surface for exterior finishes               |   |                  |                          |  |  |
| D-14.01  | Installs exterior sheathing   | LTD-315          | Exterior Systems         |  |  |
| D-14.02  | Installs lath   | LTD-315          | Exterior Systems         |  |  |
| D-14.03  | Installs Exterior Insulation Finish<br>System (EIFS) (NOT COMMON<br>CORE) | LTD-315          | Exterior Systems         |  |  |
| Task D-15 – Installs exterior finishes                           |   |                  |                          |  |  |
| D-15.01  | Fabricates panels   | LTD-315          | Exterior Systems         |  |  |
| D-15.02  | Installs pre-manufactured panels  | LTD-315          | Exterior Systems         |  |  |