MASS TIMBER TRAINING NETWORK

Advancing Trades for a Sustainable Future

Mass Timber Training Framework

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Training Framework

Developing the Mass Timber Learning Outcomes

At the heart of the project's curriculum work is a comprehensive set of over 80 mass timber learning outcomes, developed through an iterative, nationally validated process over four rounds of revision. The framework captures the skills and knowledge that participants in mass timber training need to demonstrate upon completion of training to contribute effectively to a mass timber construction project.

The outcomes are organized into nine core curriculum areas and structured across four expanding levels of mastery—from foundational awareness through to advanced application—making them adaptable for short courses, module inserts, or full program integration. They serve as the starting point for the 2 teaching frameworks outlined below and future curriculum development.

Participants

Over 100 MTAT Network members representing 51 organizations contributed to the development of the Learning Outcomes framework, including representatives of 30 Industry partners, 12 post-secondary institutions, 4 government/non-profit organizations, Red Seal Canada, a Carpentry Union, and two Indigenous partner organizations. Participants represented unique perspectives from across Canada, and shared training needs from 11 provinces and territories. The largest group of participants represented the industry in British Columbia, with 42% of contributors, then Ontario (22%), followed by Alberta (8%), Quebec (6%) and Manitoba (6%). The only two areas not represented were the Northwest Territories and Nunavut. Please see the project by the numbers page above for a more detailed list of contributors.

Methodology

The learning outcomes were developed collaboratively with network members using a modified Delphi methodology (Hesson, Kenney, McKenna, 2025) through network meetings and one-on-one consultations, then validated through an anonymous prioritization survey, additional rounds of individual consultation, and small-group validation sessions. Outcomes were also cross-referenced against the current (2022) Red Seal Canada Carpentry occupational standard (RSOS) to identify gaps and avoid duplication.

Numbering system:
The whole number indicate the mass timber learning outcome parent category:

1. Wood Science & Joinery Techniques
2. Mass Timber Materials
3. Pre-Construction Planning, Coordination & Collaboration
4. CAD & Digital Project Delivery
5. Tools for Mass Timber Installation
6. Hardware / Connections for Mass Timber
7. Moisture Management
8. Working on Site (mass timber jobsite readiness)
9. Rigging

The first decimal place notes the level at which the learning outcome appears (1-4) The progression follows Red Seal Occupational Standard (RSOS) logic:

Level 1 = foundational knowledge & basic skills
Level 2 = application & interpretation
Level 3 = analysis & coordination
Level 4 = integration, evaluation, leadership

The second decimal place is an item number. Learning outcomes highlighted in orange are covered in the current Carpentry Red Seal program and can be omitted in training where carpentry training is a prerequisite.

Mass Timber Trades Curriculum Learning Outcomes

This list of learning outcomes captures the skills and knowledge that trades students in mass timber (MT) training need to demonstrate upon completion of training in order to contribute to a mass timber construction project.

Wood Science & Joinery Techniques - 1	
1.11 Describe the cultural significance and history of wood. **1.12 Explain wood as a living material and its basic anatomical structure (earlywood/latewood, cell composition, moisture states).** **1.13 Identify grain direction, wood species, and cuts (flat/vertical).** **1.14 Explain how grain orientation affects cutting, fastening, and finishing.** **1.21 Explain dimensional changes in wood from humidity/temperature.** **1.22 Describe load transfer implications of grain orientation.** 1.23 Compare sustainability properties of MT species and products. **1.31 Analyze how environmental conditions (moisture, UV, fire) affect wood performance & MT performance** 1.32 Explain char layer 1.41 Evaluate life-cycle performance, long-term durability risks, and maintenance strategies for MT structural elements.	**1.15 Read grain orientation in solid wood and align cutting/fastening accordingly.** **1.16 Identify and fit patches using basic joinery techniques.** **1.17 Identify cut of wood (e.g. flat vs. vertical grain)** **1.24 Repair surface damage in MT using steaming, sanding, and basic refinish techniques.** **1.25 Assess grain + machining direction to perform precise joinery operations.** 1.33 Conduct field assessments of engineered members (CLT, glulam, LVL, MPP) for deterioration, delamination, char exposure, checking, and moisture-related issues. 1.42. Develop remediation plans for damaged MT components, including patching, refinishing, and moisture correction steps.
Mass Timber Materials - 2	
2.11 Identify CLT, GLT, DLT, NLT, MPP, SCL products and their uses. 2.12 Describe benefits of MT in sustainability and construction performance. 2.21 Evaluate the sustainability, span capacity, and manufacturing processes of MT products. 2.22 Describe science of MT manufacturing (including moisture fundamentals). 2.31 Investigate emerging MT products and hybrid systems. 2.41 Assess how MT product selection affects constructability, sequencing, tolerances, and long-term performance. 2.42 Evaluate tolerance differences between materials used on a MT build	2.13 Identify MT products in shop drawings. 2.23 Apply safe handling, temporary protection, and storage procedures for MT materials. 2.32 Coordinate MT material handling logistics within a multi-trade environment. 2.43 Recommend MT material solutions for project-specific needs. 2.44 Calculate tolerance differences between materials used on a MT build.

Pre-Construction Planning, Coordination & Collaboration - 3	
3.11 Identify stages of a MT project (pre-planning, fabrication, mobilization, installation). 3.12 Identify benefits of an off-site construction model for MT. **3.13 Identify practices contributing to psychological and cultural safety on a highly collaborative, interdisciplinary site. / MT project.** 3.21 Explain preconstruction sequencing, supply-chain coordination, and BIM roles on a MT project. 3.22 Describe differences between MT roles and traditional construction roles. 3.31 Analyze expectations for collaboration (design-phase input, clash-detection, timeline impacts) on MT projects. 3.41 Evaluate how design-phase decisions affect cost, sequencing, and downstream dependencies on MT projects	**3.14 Use respectful, inclusive language in team communication and trades collaboration.** 3.23 Participate in collaborative processes (early coordination, design intent communication). 3.32 Coordinate delivery, staging, and on-site movement of MT components. **3.33 Apply strategies from respectful-workplace training to real project scenarios.** 3.42 Create a MT construction project timeline showing impacts of deviations and required cross-trade mitigation measures.
CAD & Digital Project Delivery - 4	
4.11 Identify BIM principles and coordination workflows for MT/ offsite projects. 4.12 Explain value of pre-site planning and 3D model trust. 4.21 Explain use of 3D models for sequencing and constructability in offsite construction **4.22 Interpret engineered bracing plans for MT.** 4.31 Analyze digital model elements for staging and structural feasibility. 4.41 Evaluate coordination workflows to identify potential conflicts in prefabricated assemblies.	4.13 Navigate the 3D model of a structure. 4.23 Create basic CAD elements. **4.24 Extract layout info from 3D models.** **4.32 Use digital layout tools for bracing and panel alignment.** 4.33 Read/interpret MT shop drawings and assembly diagrams. 4.42 Create model-based strategies for installation sequencing or field verification of MT.
Tools for Mass Timber Installation - 5	
5.11 Identify specialized MT tools and hazards. **5.12 Describe saw blades, drill bits, and machining properties.** 5.21 Explain how machining methods relate to tolerances and surface finish for MT. 5.31 Assess tool selection needs for complex MT connections or repairs. 5.41 Evaluate quality of tool-based fabrication work.	5.13 Operate basic MT power and hand tools. **5.14 Chisel recess corners accurately.** **5.22 Shape, profile, and finish surfaces to tolerances.** **5.23 Fabricate jigs and demonstrate tool proficiency.** **5.32 Fabricate and fit advanced patch repairs for MT** 5.42 Develop tool-use protocols for advanced MT tasks (specialty cutting, recessing, shaping).

Hardware / Connections for Mass Timber - 6	
6.11 Identify MT building components, hardware, and fasteners. 6.21 Explain torque effects, ductility, and connection behaviour. 6.22 Interpret shop-drawing connection details. 6.31 Analyze connection tolerances vs. conventional carpentry tolerances. 6.32 Explain shear/tension forces and their effect on MT installation. 6.41 Evaluate connection strategies for MT assemblies, including fire, seismic, and long-term considerations.	**6.12 Install standard MT fasteners to specification.** 6.23 Install MT connectors (knife plates, hangers, drag straps). 6.24 Install MT screws at angles correctly. 6.33 Troubleshoot and repair MT connection issues. 6.42 Create connection execution plans for complex MT assemblies.
Moisture Management - 7	
7.11 Describe mold conditions, moisture challenges, and protective wraps for MT. **7.12 Understand climate zones.** 7.21 Explain impacts of saturation and moisture penetration on MT assemblies. 7.31 Analyze causes and consequences of on-site moisture exposure of MT materials. 7.41 Develop moisture management strategies for the full construction cycle.	**7.13 Install moisture protection materials.** **7.14 Calibrate moisture meters.** **7.22 Monitor moisture during concrete topping or slab installation.** 7.32 Implement moisture mitigation and tracking protocols. 7.42 Assign moisture-management responsibilities to stakeholders and coordinate onsite processes.
Working on Site (mass timber jobsite readiness) - 8	
8.11 Identify scope of work and MT-specific risks. 8.12 Describe unique considerations for site organization and sequencing of MT projects 8.21 Explain logistics, tolerances, and coordination with other trades. 8.31 Analyze site workflows and trade interactions. 8.32 Explain the importance of confirming elevation measurements, with a focus on measurements unique to MT builds 8.41 Identify sequencing optimizations and risk mitigations at system level.	**8.13 Use PPE appropriate for a MT site** **8.14 Conduct Field Level Risk Assessments.** **8.15 Survey control points.** **8.22 Use total station for layout.** **8.23 Install membranes / fire protection.** 8.33 Develop task-specific work plans for MT projects. 8.34 Confirm as built measurements with architectural drawings. 8.42 Execute multi-trade coordination based on site constraints.
Rigging - 9	

9.11 Identify rigging equipment, hand signals, knots, fall-protection basics for MT.	**9.12 Perform hand signals, tie knots, prepare and secure loads, use tag lines, locate lifting points.**
9.21 Describe considerations for vertical member tipping and CG balance.	**9.13 Apply lifting practices for cranes**
9.22 Identify different rigging slings, hardware, and below-the-hook lifting devices.	9.23 Land/position MT elements precisely.
9.31 Analyze rigging configurations for MT load scenarios.	9.24 Create a lift plan for a MT beam
9.32 Describe methods and considerations for handling and control of MT loads	**9.25 Calculate load weights for MT**
9.33 Describe methods for identifying centers of gravity and load balance in large wood components	**9.26 Apply lifting practices for multiple-crane sites**
9.41 Calculate loads and select appropriate rigging configurations for engineered assemblies.	9.34 Operate rigging tools (clutches, slings) and implement safe lift plans.
	9.35 Find center of gravity on a rectilinear panel
	9.36 Accurately install lifting points on a rectilinear panel
	9.41 Create a fall protection plan for a medium sized crew
	9.42 Create a lifting plan for a just in time delivery of various panels and beams

Framework 2: Mass Timber for Carpentry Trades Modular Standalone

Framework 2 was designed to be modular and adaptable while capturing the full breadth of identified mass timber learning outcomes not able to fit into framework 1 because of RSOS constraints. Modular framework 2 is built on the nature of mass timber construction, it is an iterative process where each step both informs and is informed by the previous. Delivery of interlocking learning outcomes within framework 2 relies heavily on project work and case studies. To keep in alignment with RSOS training a 30% theory 70% practical ratio to learning modality was adopted. The logic is that trades competency is fundamentally experiential. 30% time in the classroom gives apprentices the conceptual framework however, the 70% shop time is where learning becomes skill.

Numbering system:
The numbers in orange indicate a MT learning outcome. Whole numbers indicate learning outcome parent category (*see learning outcomes table*). First decimal place notes level following RSOS logic:

Level 1 = foundational knowledge & basic skills
Level 2 = application & interpretation
Level 3 = analysis & coordination
Level 4 = integration, evaluation, leadership

The second decimal place is an item number.

Level 1

Wood Science & Joinery Techniques

Theory - 30%	**Practical** - 70%
1.11 Describe the cultural significance and history of wood. **1.12 Explain wood as a living material and its basic anatomical structure (earlywood/latewood, cell composition, moisture states).** **1.13 Identify grain direction, wood species, and cuts (flat/vertical).** **1.14 Explain how grain orientation affects cutting, fastening, and finishing.**	**1.15 Read grain orientation in solid wood and align cutting/fastening accordingly.** **1.16 Identify and fit patches using basic joinery techniques.** **1.17 Identify cut of wood (e.g. flat vs. vertical grain)**

Mass Timber Materials

Theory - 30%	**Practical** - 70%
2.14 Identify CLT, GLT, DLT, NLT, MPP, SCL products and their uses. 2.15 Describe benefits of MT in sustainability and construction performance.	2.16 Identify MT products in shop drawings.

Pre-Construction Planning, Coordination & Collaboration

Theory - 30%	**Practical** - 70%
3.11 Identify stages of a MT project (pre-planning, fabrication, mobilization, installation). 3.12 Identify benefits of an off-site construction model for MT. **3.13 Identify practices contributing to psychological and cultural safety on a highly collaborative, interdisciplinary site. / MT project.**	**3.14 Use respectful, inclusive language in team communication and trades collaboration.**

CAD & Digital Project Delivery

Theory - 30%	**Practical** - 70%
4.11 Identify BIM principles and coordination workflows for MT/ offsite projects. 4.12 Explain value of pre-site planning and 3D model trust.	4.13 Navigate the 3D model of a structure.

Modality & Learning Activities

Level 1:
foundational knowledge & basic skills

Core Anchor: Introductory MT Benchtop Project
MMC small-scale benchtop project gives learners a tangible reference point that connects wood science, materials, tools, hardware, moisture, drawing sets, site safety, and rigging.

Suggested Modalities
• Illustrated case study introduction: instructor-led walkthrough of a real MT project (e.g. Brock Commons or Vienna House) highlighting how each Level 1 topic appears on a real build.
• Direct instruction + demonstration for foundational wood science and material identification (grain, species, MT product types).
• Hands-on shop practice: identify and handle actual MT samples, operate basic MT tools, install fasteners,

Tools for Mass Timber Installation		and apply moisture protection to project mock-up. • 3D model navigation exercise: learners recreate elements of the benchtop project as a 3D model. Lecture on how digital tools support pre-construction planning. • Role-play/simulation: brief scenario-based activity on respectful trades communication and safe rigging hand signals, connecting site-readiness and collaboration outcomes.
Theory - 30%	**Practical** - 70%	
5.11 Identify specialized MT tools and hazards. **5.12 Describe saw blades, drill bits, and machining properties.**	5.13 Operate basic MT power and hand tools. **5.14 Chisel recess corners accurately.**	
Hardware / Connections for Mass Timber		
Theory - 30%	**Practical** - 70%	
6.11 Identify MT building components, hardware, and fasteners.	**6.12 Install standard MT fasteners to specification.**	
Moisture Management		
Theory - 30%	**Practical** - 70%	
7.11 Describe mold conditions, moisture challenges, and protective wraps for MT. **7.12 Understand climate zones.**	**7.13 Install moisture protection materials.** **7.14 Calibrate moisture meters.**	
Working on Site (mass timber jobsite readiness)		
Theory - 30%	**Practical** - 70%	
8.11 Identify scope of work and MT-specific risks. 8.12 Describe unique considerations for site organization and sequencing of MT projects	**8.13 Use PPE appropriate for a MT site** **8.14 Conduct Field Level Risk Assessments.** **8.15 Survey control points.**	
Rigging		
Theory - 30%	**Practical** - 70%	
9.11 Identify rigging equipment, hand signals, knots, fall-protection basics for MT.	**9.12 Perform hand signals, tie knots, prepare and secure loads, use tag lines, locate lifting points.** **9.13 Apply lifting practices for cranes**	

Level 2

Wood Science & Joinery Techniques		**Modality & Learning Activities**
Theory - 30%	**Practical** - 70%	**Level 2:** application & interpretation **Core Anchor: Connections Project**
1.21 Explain dimensional changes in wood from humidity/temperature. **1.22 Describe load transfer implications of grain orientation.**	**1.24 Repair surface damage in MT using steaming, sanding, and basic refinish techniques.** **1.25 Assess grain + machining direction to perform precise joinery operations.**	

1.23 Compare sustainability properties of MT species and products.		MMC MT connections project serves as the through-line. Learners apply skills from multiple modules to a single interconnected build sequence, seeing how decisions in one area (moisture, connections, layout) affect all others. **Suggested Modalities** • Case study analysis: learners examine a real MT project with documented errors, delays, and corrections (e.g. moisture event, connection revision) and trace the downstream impacts across trades and timeline. • Shop project with shop-drawing interpretation: learners extract layout information from a 3D model or 2D shop drawing to set up and assemble project, linking CAD/digital delivery • Collaborative simulation: small teams perform pre-construction coordination roles (designer intent, carpenter, moisture monitor) during assembly, reinforcing the interdisciplinary nature of MT projects. • Guided discovery/problem-solving: instructor introduces a tolerance or connection challenge mid-project;
Mass Timber Materials		
Theory - 30%	**Practical** - 70%	
2.21 Evaluate the sustainability, span capacity, and manufacturing processes of MT products. 2.22 Describe science of MT manufacturing (including moisture fundamentals).	2.23 Apply safe handling, temporary protection, and storage procedures for MT materials.	
Pre-Construction Planning, Coordination & Collaboration		
Theory - 30%	**Practical** - 70%	
3.21 Explain preconstruction sequencing, supply-chain coordination, and BIM roles on a MT project. 3.22 Describe differences between MT roles and traditional construction roles.	3.23 Participate in collaborative processes (early coordination, design intent communication).	
CAD & Digital Project Delivery		
Theory - 30%	**Practical** - 70%	
4.21 Explain use of 3D models for sequencing and constructability in offsite construction **4.22 Interpret engineered bracing plans for MT.**	4.23 Create basic CAD elements. **4.24 Extract layout info from 3D models.**	
Tools for Mass Timber Installation		
Theory - 30%	**Practical** - 70%	
5.21 Explain how machining methods relate to tolerances and surface finish for MT.	**5.22 Shape, profile, and finish surfaces to tolerances.** **5.23 Fabricate jigs and demonstrate tool proficiency.**	
Hardware / Connections for Mass Timber		
Theory - 30%	**Practical** - 70%	
6.21 Explain torque effects, ductility, and connection behaviour. 6.22 Interpret shop-drawing connection details.	6.23 Install MT connectors (knife plates, hangers, drag straps). 6.24 Install MT screws at angles correctly.	
Moisture Management		
Theory - 30%	**Practical - 70%**	
7.21 Explain impacts of saturation and moisture penetration on MT assemblies.	**7.22 Monitor moisture during concrete topping or slab installation.**	

Working on Site (mass timber jobsite readiness)		learners must diagnose and resolve it, mirroring real just-in-time decision-making on site. • Guest speaker / video: industry practitioner shares experience from a real MT site, with emphasis on sequencing, supply-chain coordination, and trade collaboration.
Theory - 30%	**Practical** - 70%	
8.21 Explain logistics, tolerances, and coordination with other trades.	**8.22 Use total station for layout.** **8.23 Install membranes / fire protection.**	
Rigging		
Theory - 30%	**Practical** - 70%	
9.21 Describe considerations for vertical member tipping and CG balance. **9.22 Identify different rigging slings, hardware, and below-the-hook lifting devices.**	9.23 Land/position MT elements precisely. 9.24 Create a lift plan for a MT beam **9.25 Calculate load weights for MT** **9.26 Apply lifting practices for multiple-crane sites**	
Level 3		
Wood Science & Joinery Techniques		**Modality & Learning Activities**
Theory - 30%	**Practical** - 70%	**Level 3:** analysis & coordination **Core Anchor: MMC Connections Project or MMC Full Scale Project** **Suggested Modalities** • Field trip or site visit: where possible, visit an active MT construction site to observe just-in-time delivery, crane operations, multi-trade coordination, and sequencing in action. • Case study with digital model: learners analyse staging and structural feasibility using a 3D model, read MT shop drawings, and develop a task-specific work plan, connecting CAD, site-
3.11 Analyze how environmental conditions (moisture, UV, fire) affect wood performance & MT performance 3.12 Explain char layer	3.13 Conduct field assessments of engineered members (CLT, glulam, LVL, MPP) for deterioration, delamination, char exposure, checking, and moisture-related issues.	
Mass Timber Materials		
Theory - 30%	**Practical** - 70%	
2.31 Investigate emerging MT products and hybrid systems.	2.32 Coordinate MT material handling logistics within a multi-trade environment.	
Pre-Construction Planning, Coordination & Collaboration		
Theory - 30%	**Practical** - 70%	
3.31 Analyze expectations for collaboration (design-phase input, clash-detection, timeline impacts) on MT projects.	3.32 Coordinate delivery, staging, and on-site movement of MT components. **3.33 Apply strategies from respectful-workplace training to real project scenarios.**	
CAD & Digital Project Delivery		
Theory - 30%	**Practical** - 70%	
4.31 Analyze digital model elements for staging and structural feasibility.	**4.32 Use digital layout tools for bracing and panel alignment.**	

	4.33 Read/interpret MT shop drawings and assembly diagrams.	readiness, and pre-construction outcomes. • Project-based assessment: learners complete a field-style assessment of engineered members (deterioration, delamination, moisture) on the shop project and produce a written finding, mirroring professional site documentation. • Scenario-based rigging exercise: learners calculate load weights, locate centre of gravity, and develop a lift plan for a rectilinear panel using the constructability hub or shop mock-up, integrating rigging with site planning outcomes. • Respectful workplace applied scenario: learners reflect on a project scenario involving trade conflict or communication breakdown and apply strategies from respectful-workplace training to propose resolution.
Tools for Mass Timber Installation		
Theory - 30%	**Practical** - 70%	
5.31 Assess tool selection needs for complex MT connections or repairs.	**5.32 Fabricate and fit advanced patch repairs for MT**	
Hardware / Connections for Mass Timber		
Theory - 30%	**Practical** - 70%	
6.31 Analyze connection tolerances vs. conventional carpentry tolerances. 6.32 Explain shear/tension forces and their effect on MT installation.	6.33 Troubleshoot and repair MT connection issues.	
Moisture Management		
Theory - 30%	**Practical** - 70%	
7.31 Analyze causes and consequences of on-site moisture exposure of MT materials.	7.32 Implement moisture mitigation and tracking protocols.	
Working on Site (mass timber jobsite readiness)		
Theory - 30%	**Practical** - 70%	
8.31 Analyze site workflows and trade interactions. 8.32 Explain the importance of confirming elevation measurements, with a focus on measurements unique to MT builds	8.33 Develop task-specific work plans for MT projects. 8.34 Confirm as built measurements with architectural drawings.	
Rigging		
Theory - 30%	**Practical** - 70%	
9.31 Analyze rigging configurations for MT load scenarios. 9.32 Describe methods and considerations for handling and control of MT loads 9.33 Describe methods for identifying centers of gravity and load balance in large wood components	9.34 Operate rigging tools (clutches, slings) and implement safe lift plans. 9.35 Find center of gravity on a rectilinear panel 9.36 Accurately install lifting points on a rectilinear panel	
Level 4		

Wood Science & Joinery Techniques		**Modality & Learning Activities**
Theory - 30%	**Practical** - 70%	**Level 4:** integration, evaluation, leadership **Core Anchor: MMC Full Scale MT Project & Integrated Capstone** **Suggested Modalities** • Capstone project leadership: learners create a MT construction project timeline (with deviation impacts and cross-trade mitigations), a connection execution plan, and a moisture management strategy, then present and defend their decisions to peers and an industry reviewer. • Industry panel or expert review: learners receive feedback from a practicing MT contractor or engineer on their capstone plans, reinforcing real-world standards and multi-stakeholder expectations. • Model-based sequencing exercise: learners use a digital model to identify coordination conflicts in a prefabricated assembly and develop installation sequencing or field verification strategies, directly applying CAD and pre-construction outcomes at a leadership level.
1.41 Evaluate life-cycle performance, long-term durability risks, and maintenance strategies for MT structural elements.	1.42 Develop remediation plans for damaged MT components, including patching, refinishing, and moisture correction steps.	
Mass Timber Materials		
Theory - 30%	**Practical** - 70%	
2.41 Assess how MT product selection affects constructability, sequencing, tolerances, and long-term performance. 2.42 Evaluate tolerance differences between materials used on a MT build	2.43 Recommend MT material solutions for project-specific needs. 2.44 Calculate tolerance differences between materials used on a MT build.	
Pre-Construction Planning, Coordination & Collaboration		
Theory - 30%	**Practical** - 70%	
3.41 Evaluate how design-phase decisions affect cost, sequencing, and downstream dependencies on MT projects	3.42 Create a MT construction project timeline showing impacts of deviations and required cross-trade mitigation measures.	
CAD & Digital Project Delivery		
Theory - 30%	**Practical** - 70%	
4.41 Evaluate coordination workflows to identify potential conflicts in prefabricated assemblies.	4.42 Create model-based strategies for installation sequencing or field verification of MT.	
Tools for Mass Timber Installation		
Theory - 30%	**Practical** - 70%	
5.41 Evaluate quality of tool-based fabrication work.	5.42 Develop tool-use protocols for advanced MT tasks (specialty cutting, recessing, shaping).	
Hardware / Connections for Mass Timber		
Theory - 30%	**Practical** - 70%	
6.41 Evaluate connection strategies for MT assemblies, including fire, seismic, and long-term considerations.	6.42 Create connection execution plans for complex MT assemblies.	
Moisture Management		
Theory - 30%	**Practical** - 70%	

7.41 Develop moisture management strategies for the full construction cycle.	7.42 Assign moisture-management responsibilities to stakeholders and coordinate onsite processes.	• Rigging and safety plan creation: learners develop a full fall-protection plan and a just-in-time lifting plan for a mixed delivery of MT panels and beams, integrating load calculations, rigging configuration, and multi-trade site coordination. • Peer teaching or mentorship activity: learners demonstrate a tool protocol, repair technique, or connection strategy to peers, building the communication and leadership skills needed to guide junior workers on a MT site.
Working on Site (mass timber jobsite readiness)		
Theory - 30%	**Practical** - 70%	
8.41 Identify sequencing optimizations and risk mitigations at system level.	8.42 Execute multi-trade coordination based on site constraints.	
Rigging		
Theory - 30%	**Practical** - 70%	
9.41 Calculate loads and select appropriate rigging configurations for engineered assemblies.	**9.42 Create a fall protection plan for a medium sized crew** 9.43 Create a lifting plan for a just in time delivery of various panels and beams	