



9192

ADVANCED FRAMING (12B)

40S/40E/40M

A Carpentry Course

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Course Description

In this course, students will extend what they learned in 9189 Framing. It includes all of the objectives found in Unit B3: Temporary Access Equipment and Structures from *Carpenter Level 1*, from Apprenticeship Manitoba.

Goal 1: Describe and apply appropriate **health and safety** practices.

GLO 1.1: Describe and apply appropriate **health and safety** practices.

SLO 12B.1.1.1 Demonstrate an understanding of and adherence to health and safety practices.

GLO 1.2: Demonstrate knowledge of the ***Trade Safety Awareness Manual***.

No applicable SLOs.

Goal 2: Demonstrate the identification, installation, and management of **materials**.

GLO 2.1: Demonstrate the identification, installation, and management of **materials**.

SLO 12B.2.1.1 Demonstrate the identification, installation, and management of materials.

Goal 3: Demonstrate the identification, use, and management of **tools, equipment, fasteners, and adhesives**.

GLO 3.1: Demonstrate the identification, use, and management of **tools and equipment**.

SLO 12B.3.1.1 Define terminology associated with temporary access equipment and structures. (B3.1)

SLO 12B.3.1.2 Identify hazards and describe safe work practices pertaining to temporary access equipment and structures. (B3.2)

- SLO 12B.3.1.3 Interpret codes, regulations, and information found on drawings and specifications pertaining to temporary access equipment, structures, and hoarding. (B3.3)
- lighting
 - ventilation
 - temperature
 - moisture
- SLO 12B.3.1.4 Identify types of temporary access equipment and structures and their components, and describe their applications, limitations, and procedures for use. (B3.4)
- stationary access equipment
 - ladders
 - ramps
 - temporary stairs
 - mobile access equipment
 - elevating work platforms
 - telescoping booms
 - articulated booms
 - scaffolding
 - wood
 - metal
 - welded frame
 - tube-and-clamp
 - systems
 - specialty access equipment
 - swing stages
 - boatswain’s chairs (bosun’s chairs)
- SLO 12B.3.1.5 Identify types of material-handling equipment, and describe their applications and procedures for use. (A3.5)
- aerial work platforms
 - forklifts
 - telehandlers
 - skidsteers

GLO 3.2: Demonstrate the identification, use, and management of **fasteners and adhesives.**

- SLO 12B.3.2.1 Demonstrate the identification, use, and management of fasteners and adhesives.
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Goal 4: Demonstrate the basic **skills** of carpentry.

GLO 4.1: Demonstrate the skills related to **project drawings and specifications**.

SLO 12B.4.1.1 Identify types of specification documents and describe their applications. (B2.3) *(This objective is also taught in course #9189.)*

- code books
- contract specifications
- manufacturers' specifications
- energy efficiency guides
- safety manuals/instructions
- operating manuals
- permits

GLO 4.2: Demonstrate the carpentry skills related to **layout, measurement, and assembly**.

SLO 12B.4.2.1 Calculate ratios/proportions. (B1.4)

- like-ratios
- mechanical advantage
- percentages
- similar triangles

SLO 12B.4.2.2 Apply geometrical principles. (B1.5) *(This objective is also taught in course # 8585.)*

- bisecting angles/lines
- ellipses/spring line
- perpendicular parallel lines
- Pythagorean theorem
- basic trigonometry

SLO 12B.4.2.3 Demonstrate the process of framing floors, walls, and roofs.

GLO 4.3: Demonstrate the ability to determine **elevations** and lay out **building lines**.

No applicable SLOs.

GLO 4.4: Demonstrate the knowledge and skills associated with **concrete foundations**.

No applicable SLOs.

Goal 5: Follow the **ethical and legal standards** that pertain to carpentry.

GLO 5.1: Demonstrate an awareness of the **ethical and legal expectations** of carpenters.

- SLO 12B.5.1.1 Interpret regulations and specifications pertaining to tools and equipment. (A3.3)
- certification
 - training

Goal 6: Demonstrate **employability skills**.

GLO 6.1: Demonstrate **employability skills**.

- SLO 12B.6.1.1 Demonstrate regular attendance and punctuality.
- SLO 12B.6.1.2 Demonstrate accountability by taking responsibility for own actions.
- SLO 12B.6.1.3 Demonstrate adaptability and effort.
- SLO 12B.6.1.4 Demonstrate the ability to accept and follow direction and feedback.
- SLO 12B.6.1.5 Demonstrate teamwork skills.
- SLO 12B.6.1.6 Demonstrate the ability to stay on task and use time effectively.

GLO 6.2: Demonstrate **critical thinking** skills.

- SLO 12B.6.2.1 Demonstrate problem-solving skills.

GLO 6.3: Demonstrate respectful interactions with individuals of different **cultures**.

- SLO 12B.6.3.1 Demonstrate an awareness of cultural differences in the workplace.

Goal 7: Demonstrate an awareness of **sustainability** as it pertains to carpentry.

GLO 7.1: Describe the impact of the construction industry on **human sustainability** and the health and well-being of carpenters.

- SLO 12B.7.1.1 Demonstrate an awareness of the sustainability of the carpenter's working conditions.
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GLO 7.2: Describe the construction industry's **sustainability practices** and impact on the environment.

SLO 12B.7.2.1 Demonstrate the efficient use of materials.

Goal 8: Demonstrate an understanding of the **structure and scope** of carpentry.

GLO 8.1: Describe the **scope of** carpentry.

SLO 12B.8.1.1 Demonstrate an awareness of the scope of framing.

GLO 8.2: Describe **apprenticeship, post-secondary education, and employment opportunities.**

SLO 12B.8.2.1 Describe employment opportunities in framing.

Goal 9: Demonstrate an understanding of the **evolution** of carpentry, including its **technological progression and emerging trends.**

GLO 9.1: Demonstrate an understanding of the **evolution** of carpentry, including its **technological progression and emerging trends.**

SLO 12B.9.1.1 Demonstrate an awareness of the evolution of framing, including its technological progression and emerging trends.
