BC Building Code Level 2

This is a self-paced online course consisting of 11 Modules, you are required to pass the quiz at the end of each module with a minimum of 80%. This course takes approximately 11.5 hours to complete.

This course is intended to help the participant understand the requirements of the BCBC that apply to all Small Buildings defined in Vol. 1 Division A, Article 1.3.3.3. in the BCBC as:

- three or fewer storeys in building height
- having a building area not exceeding 600 m2
- used for major occupancies classified as Group C-residential, Group D- business and personal services, Group E-mercantile or Group F- Division 2 medium hazard industrial and Group F- Division 3- low hazard industrial occupancies.

LEVEL 2 – Course Modules

Module 1: Introduction – Small Buildings

This module has been designed to enhance your knowledge of the BC Building Code by helping you interpret and implement the principles of the Code with respect to small buildings. During this module we will also review some of the basic concepts and layout of the BCBC and how they relate to small buildings.

Module 2: Special Structures and the Basics of Structural Requirements

This module has been designed to enhance your knowledge of the BC Building Code by helping you interpret and implement the principles of the Code with respect to Materials, Systems and Equipment; Structural Requirements; and Special Structures. Topics include Tents and air-supported structures; Soil gas including Radon; Site-assembled and Factory-built Buildings; Concrete, Wood and Lumber, Metal; Structural Design; Specified Loads; Deflections; and Foundations.

Module 3: Design of Areas and Spaces: Access for Persons with Disabilities and Additional Requirements for Small Buildings

During this module, we introduce the design of areas and spaces – access for people with disabilities and additional requirements for small buildings.

In this section you will: explain and apply requirements pertaining to Accessibility; explain and apply the BCBC standards and requirements pertaining to occupancy requirements; apply specific design standards and requirements to a range of building components, including doors, ramps, elevators, washrooms, etc.; and identify relevant sections of the Code that help calculate the minimum ceiling height and room area requirements for various occupancies.

Module 4: Stairs, Ramps, Landings, Handrails, and Guards

During this module, we address the guidelines for designing and building interior and exterior stairs, ramps, landings, guards, and railings.

In this section, you will: explain and apply the BCBC standards and requirements pertaining to small building stairs, ramps and landings; explain and apply the BCBC standards and requirements pertaining to small building handrails and guards; and determine requirements for construction of stairs and ramps.

Module 5: Means of Egress

In this module, we introduce means of egress requirements for a safe egress system for all occupancies. Requirements for exits, access to exits and means of egress as well as other exiting conditions such as fire protection of exits, limiting obstructions in a means of egress, signage, and lighting, are all parts of the overall topic of the safe evacuation of buildings covered in this module.

In this section, you will: apply general requirements for exits; determine and apply

dimensions for means of egress; explain and apply rules for fire protection of exits; specify and apply rules addressing obstructions and hazards in means of egress; specify rules for doors in means of egress; determine and apply requirements for access to exits; determine and apply requirements for exit from floor areas; determine and apply requirements for egress from dwelling units and bedrooms; and determine and apply requirements for safety signage and emergency lighting.

Module 6: Fire Protection I

During this module, we address fire protection. This module will look at Subsections 9.10.1. Definitions and Application through 9.10.14. Spatial Separation Between Buildings. These subsections address a range of fire safety issues, beginning with the definition of certain fire protection rules and ratings. They also help determine which fire protection requirements apply to a particular small building, regulated under Part 9 of the BCBC, based on considerations such as occupancies and building height.

Also considered in this chapter are permitted openings in structures as they relate to fire safety, types of construction used in small buildings, fire resistance of building elements, and fire separations within buildings.

Module 7: Fire Protection II

During this module, we continue with fire protection from where we ended at Subsection 9.10.14. Note that Subsection 9.10.15., 'Spatial Separation Between Houses', which deal with buildings containing only dwelling units with no dwelling units above another, and houses with a secondary suite will not be covered in this course as it was included in Level 1.

This module continues the discussion of fire protection and safety in small buildings. Topics include Fire Blocks, Subsection 9.10.16.; Flame-Spread Limits, Subsection 9.10.17.; Alarm

and Detection Systems, Subsection 9.10.18.; Smoke Alarms, Subsection 9.10.19.; Firefighting, Subsection 9.10.20.; Fire Protection for Construction Camps, Subsection 9.10.21.; Fire Protection for Gas, Propane and Electric Cooktops and Ovens, Subsection 9.10.22.

Module 8: Fire Protection III

During this module, we continue with fire protection in small buildings and cover important additional material that helps you to understand, calculate, and apply the fire performance requirements and the minimum materials specifications of the BCBC. The Fire and Sound Resistance Tables, Appendix D, and test methods described in Part 3 will be referenced.

Topics include Fire-performance information for materials and assemblies used in Part 9 small buildings; Equivalent thickness; Fire-resistance ratings; Flame-spread ratings; Noncomputability; Protection of openings in fire-rated assemblies; Use of Tables 9.10.3.1.-A. and 9.10.3.1.-B. to determine fire and sound resistance ratings for a variety of specified assemblies.

Module 9: Energy Efficiency

In this module, we address Section 9.36, “Energy Efficiency,” applies to the increasingly important topics of resource and energy conservation and environmental efficiency and responsibility in the design and construction of all buildings, which includes all small buildings.

Topics include how to determine and apply Building Code requirements related to: Energy efficiency for mixed use occupancies within the scope of Part 9, and Energy efficiency for buildings of Residential Occupancy within the scope of Part 9.

NOTE: We will not be reviewing performance, NECB or the BC Energy Step Code requirements in this course.

Module 10: Plumbing

In this module, we address personal, public health and sanitation issues to do with plumbing. Topics include Plumbing and Drainage Systems; Plumbing Fixtures and Facilities; Plumbing Requirements Related to Occupancy; and Plumbing Safety and Sanitation.

As these requirements relate to Part 9 small buildings, they are first discussed in Section 9.31. and Article 9.31.2.1. directs us to Part 7, Plumbing Services. This area of the Building Code and this module of your training primarily addresses the numerical and occupancy requirements for plumbing facilities and components within those facilities, the number and gender of washrooms, required water closets and lavatories, etc. and describes the special requirements related to plumbing fixtures.

Module 11: Additional Small Building Topics

In this module, we address topics not discussed in other parts of the training but relevant to the overall understanding of the Building Code practitioner when dealing with these structures.

Topics include Floors-on-ground Section 9.16; Masonry and Insulating Concrete Form (ICF) walls Section 9.20; Wood-frame construction Section 9.23; Electrical facilities Section 9.34; and Safety Measures at Construction and Demolition Sites - Part 8 of the Code.

In this section you will: explain and apply the requirements for floors-on-ground; apply rules for masonry and ICF construction that are not in contact with the ground; determine and apply BCBC requirements for wood-frame construction; the new requirement throughout all of BC for bracing to resist lateral wind and earthquake loads. Apply the requirements for electrical facilities; and explain and apply the requirements for safety measures.