

# ISS – HOME INSPECTOR TRAINING PROGRAM

## SYLLABUS: ISS104 – Structures

### INSTRUCTIONAL GOALS

This course provides practical construction theory and understanding of residential homes. You will learn common terminology and definitions, identification of residential materials and become more familiar with wood frame construction involving foundations, framing, structure and finishing systems. It includes a focus on defect recognition for Canadian Wood-frame structures.

The required understanding of sizing charts and residential construction procedures as well as key inspection points will also be covered. Hands on practice to produce a technical home inspection report based on the Canadian Wood Frame House Construction manual along with on-site reviews will be co-ordinated with this course.

### LEARNING OUTCOMES (NOS = National Occupational Standard for Home and Property Inspector)

Learning outcomes are clear statements of the critical/essential knowledge, skills and attitudes that a student is required to demonstrate to indicate successful completion of this course. Upon successfully completing the course the student will be able to:

- Explain basic residential structural theory
- Identify major structural components
- Visually Inspects exterior structure (NOS B1)
- Visually inspects condition of exposed foundations (NOS B1.01)
- Visually inspects condition of exterior roof structure (NOS B1.02)
- Visually inspects condition of exterior wall structure and components (NOS D1.03)
- Visually inspects condition of extended structures and floors (decks, patios, solariums, etc.) (NOS B1.04)
- Visually inspects condition of exposed exterior columns (NOS B1.05)
- Visually inspects condition of exposed exterior beams (NOS B1.06)
- Document inspection findings (NOS B1.07)
- Visually Inspects exterior components (NOS B2)
- Visually inspects condition of roofing components (NOS B2.01)
- Visually inspects condition of chimney exterior (NOS B2.02)
- Visually inspects condition of exterior cladding and finishes (NOS B2.03)
- Visually inspects condition of windows and skylights (NOS B2.04)
- Visually inspects condition of exterior doors and trim (NOS B2.05)
- Operates garage doors and automatic devices (NOS B2.06)
- Document inspection findings (NOS B2.07)
- Visually Inspects site elements (NOS B3)
- Identifies potential impacts of site surroundings (NOS B3.01)
- Visually inspects condition of site for grading and drainage (NOS B3.02)
- Visually inspects condition of walkways, driveways and patios (NOS B3.03)
- Visually inspects condition of retaining walls (NOS B3.04)
- Visually inspects condition of steps, railings, decks and balconies (NOS B3.05)
- Document inspection findings (NOS D3.06)
- Visually Inspects interior surfaces (NOS C5)
- Visually inspects condition of walls (NOS C5.01)
- Visually inspects condition of floors (NOS C5.02)
- Visually inspects condition of ceilings (NOS C5.03)

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- Visually inspects condition of crawl spaces and basements (NOS C5.04)
- Visually inspects condition of attics (NOS C5.05)
- Document inspection findings (NOS C5.06)
- Visually Inspects interior structure (NOS C6)
- Visually inspects condition of floor structure (NOS C6.01)
- Visually inspects condition of interior wall structure (NOS C6.02)
- Visually inspects condition of interior foundation structure (NOS C6.03)
- Visually inspects foundation systems for leaks and water infiltration (NOS C6.04)
- Visually inspects condition of interior roof systems (NOS C6.05)
- Visually inspects condition of interior stairs and railings (NOS C6.06)
- Visually inspects condition of interior columns (NOS C6.07)
- Visually inspects condition of interior beams (NOS C6.08)
- Visually inspects built-in counters, cabinets, etc.
- Visually inspects garages and carports
- Document inspection findings (NOS C6.09)

## COURSE CONTENT

- The Basics of Structures
- Footings
- Foundations
- Floors
- Walls
- Ceiling & Roofs
- Chimneys and Flashings
- Interior Finishing
- Insects & Rot
- Mechanical Damage
- Standards of Practice
- Defect Recognition / Analysis

## NEEDS AND RESOURCES

### Required Background

To successfully complete this course, you must have a completed ISS100 – Intro to Home Inspection

- How to use a computer
- How to use a web browser to connect to the course site
- How to send and respond to email messages
- How to use Skype

### Required Material Provided

- Canadian Wood-frame House Construction (Text by CMHC)

### Additional Print Resources (Optional)

- Provincial and/or National Building Code

### Online Resources

- Online course notes

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- Referenced technical papers specified in the course

## COURSE SCHEDULE

This is an 80-hour course. This online course is based on a maximum of 15 weeks duration for completion. This course includes instructor led webinars, quizzes, and/or assignments, activities and a final exam. This course contains 28 hours of Skype/webinar based interaction to complete. In-class sessions are scheduled for an 80-hour contact format.

## POLICIES AND PROCEDURES

### General Rules:

It is expected that the individual student must perform all work. Any student having an academic concern or questioning an academic decision should first discuss the matter directly with their course instructor; if the issue is not resolved then with the ISS Program Coordinator. The ISS Program Coordinator's decision is final. Further information may be found on the Inspection Support Services webpage and a link to ISS Education Policy.

### Communication:

One of the first things we would like you to do, when you are enrolled is to send your course instructor an email that indicates a little info about who you are and where you live. This will be used as your main point of contact for communications. This also gives the instructor a better idea regarding scheduling webinars. Upon enrollment our Program Administrator will provide you with your Instructors contact email.

### Webinar Attendance Policy:

The **Direct Instruction** is a critical part of the course delivery. As such and based on studying various types of “best practices” for course delivery. Note that a portion of your grades accounts for what we deem as \*mandatory participation in the scheduled webinars. This is keeping with the regulations primarily set by Consumer Protection BC Home Inspector educational program approved for the purposes of Section 3(3)(a) of the Home Inspector Licensing Regulation (“HILR”).

### Grading:

Students will be evaluated as follows: (Activity & Assessment Percentage)

\*Webinars = 28% (1% per webinar hour)

Assignments/Quizzes = 12%

Projects (1 report) = 10%

Final Exam = 50%

Supplemental evaluations are not available in this course, unless extraordinary, documentable circumstances have prevented a student from participating in scheduled course activities. All applications for a supplemental are made to the course instructor.

### Grading Scale:

A passing grade in this course is a minimum of 70%. Note that some inspection associations and/or provincial regulations for licensing home inspectors require 80% as their minimum.

### Final Exam:

The final course exam must be completed within 3 weeks of the scheduled course completion date. All exams for online courses must be independently proctored\*\*. (Refer to the Proctoring Document\*\* available on the “Program” website.)

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## Course Copyright:

All course materials students receive or have access to are protected by Copyright Laws. Students may use these materials strictly for their training, but any type of unauthorized distribution and/or transfer is prohibited.

## Disclaimer:

Please note that the specifics of this course may be modified from time to time, due to changes. While every effort is made by the instructor to cover all content material listed in this outline, the order, content and/or evaluation may change as a result of special circumstances (e.g. technology/equipment problems and/or changes, etc.). In any such case, every effort will be made to make appropriate adjustments to the course delivery. These include reference to web links or changes due to updates within the home inspection sector. Students will be advised by email directly when and if changes do occur.

## Schedule of Topics, Readings & Direct Instruction Webinars

This schedule provides an outline of the main topics for this course and during which week they will be addressed. Characteristics of the webinars can vary in a number of different types of formats such as discussions, lectures, presentations and question and answer style deliveries.

### ISS104 Structures (28 hours of webinar based delivery) \*TOTAL Direct Instruction

Week	Topic	Reference Module	Hours	*DI Hrs
1	Intro & Course Orientation	Overview of Structures	3	2
2	Site & Ground Work (Foundations)	Excavation, Soils, Concrete, Footings, Foundations, Slabs, Waterproofing, Drainage	4	2
3	Structural Framing Systems 1	Lumber, EWP, Framing, Floor Framing, Beams, Joists, Int. Walls	8	2
4	Framing Systems 2	Wall Framing, Steel Studs, Ceiling & Roof Framing, Rafters, Framing Details	6	2
5	Enclosure (Sheathing) Systems	Flashing, Roof & Wall Sheathing Rainscreens - Coverings	6	2
6	Enclosure (Finishing)	Windows & Doors, Ext Trim, Millwork, Stairs	4	2
7	Details, Chimneys & Fireplaces	Chimneys & Fireplaces, Roofing	4	2
8	Thermal Efficiency	Thermal Insulation, Air & Vapour Barriers, HRVs, Fire & Sound Control	6	2
9	Interior & Exterior Finishing	Int. Finishes, Ext Finishes, Eaves & Downspouts, Surfaces, Ext Fitments	8	2
10	Standards & Reporting	Overview, Major Functions, Defects, Standard of Care	6	2
11	Structure Defect Identification	Defects, Terms, Problems	6	2
12	House as a System (Envelope)	Characteristics, Sample Study	6	2
13	Case Studies	Photo Defect Studies	7	2
14	Exam Prep & Review	Summary Review	4	1
15	Project Feedback	Feedback, Q& A	2	0
			80	28

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**NOTE:**

- ISS100 provides an introductory overview of home inspections.
- Although the Direct Instruction hours appear to be directed at the topic of that week, it also includes discussion on the previous topics as part of a review and reinforcement process.