

# ISS – HOME INSPECTOR TRAINING PROGRAM

## SYLLABUS: ISS101 – Plumbing

### INSTRUCTIONAL GOALS

An introduction to residential plumbing systems, including common terms and definitions, residential materials, material evolution, plumbing fixtures, faucets, hot water tanks, water distribution systems, drain waste and vent systems, septic tank systems, water wells and water well pumps. The advantages, disadvantages and common failures of the above shall be examined. Key inspection points are included.

### 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:

- Visually inspects water service supply and distribution (NOS E1)
- Identifies sources of water supply (NOS E1.01)
- Identifies presence and condition of shut-off valves (NOS E1.02)
- Visually inspects conditions of pumps and tanks (NOS E1.03)
- Identifies types of distribution pipes (NOS E1.04)
- Visually inspects condition of distribution piping (NOS E1.05)
- Visually inspects exterior hose bibs (NOS E1.06)
- Document inspection findings (NOS E1.07)
- Visually inspects and operates fixtures (NOS E2)
- Visually inspects condition of fixtures (NOS E2.01)
- Visually inspects condition of tub and shower enclosures (NOS E2.02)
- Visually inspects condition of faucets (NOS E2.03)
- Operates faucets and fixtures (NOS E2.04)
- Verifies functional flow of water (NOS E2.05)
- Document inspection findings (NOS E2.06)
- Visually inspects and operates water heaters (NOS E3)
- Identifies type of water heater (NOS E3.01)
- Visually inspects condition of water heater (NOS E3.02)
- Verifies operation of water heater (NOS E3.03)
- Identifies type and source of fuel (NOS E3.04)
- Visually inspects condition of fuel storage system (NOS E3.05)
- Visually inspects condition of fuel distribution system (NOS E3.06)
- Document inspection findings (NOS E3.07)
- Visually inspects drain, waste and venting (NOS E4)
- Visually inspects condition of piping (NOS E4.01)
- Observe functional drainage (NOS E4.02)
- Visually inspects for existence of vents (NOS E4.03)
- Visually inspects for existence of cleanouts (NOS E4.04)
- Visually inspects for existence of floor drains (NOS E4.05)
- Visually inspects existence/condition of sump pump & discharge (NOS E4.06)
- Visually inspects existence/condition of sewage ejection pump (NOS E4.07)
- Document inspection findings (E4.08)

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## COURSE CONTENT

- Pipe Materials and Joining Methods
- Plumbing Fixtures
- Potable Water & Distribution Piping Systems
- Rural Water Systems
- Drain Design
- Drain, Waste and Vent Systems
- Septic Tanks and Leaching Beds
- 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

### Additional Resources (Optional)

- A Guide and Code to Plumbing Installation
- Part 7 Plumbing Code

### Online Resources

- Online course notes
- Referenced technical papers specified in the course

## COURSE SCHEDULE

This is an 80-hour course. This online course is based on a maximum of 14 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 required to complete the course. The in-class version is 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 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.

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## **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 = 22%

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.)

## **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.

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## ISS101 Plumbing (28 hours of webinar based delivery) \*TOTAL Direct Instruction

Week	Topic	Reference Module	Hours	*DI Hrs
1	Intro & Course Orientation	Overview & Water Sources	3	2
2	Pipe Materials & Joining Methods	Supply Pipes, Materials, Joining, Waste pipes, Inspecting	4	2
3	Plumbing Fixtures	Fixtures, Typical Problems	6	2
4	Distribution Piping	Municipal Systems, Water Service, Distribution, Safety Valves, Typical Problems, Pollution /Contamination	6	2
5	Rural Water Systems	Dug Wells, Driven Wells, Drilled Wells	5	2
6	Site & Drain Design	Plumbing Drains	4	2
7	Drain, Waste & Vent Systems	DWV Systems, Fixture Drains, Branches, Traps, Stack, Vents, Uncontrolled Discharge of Wastes, Horizontal Drains, Floor Drains, Cleanouts, Typical Problems	10	2
8	Septic Tanks/Leaching Beds	Cesspools, Septics & Disposal, Inspections	5	2
9	Water Heating / Fuel Storage Equipment	Water heaters, Safety Valves, Venting, Typical Problems, Fuel Storage	6	2
10	Storm Drainage	Foundation Drains, Cleanouts, Downspouts, Municipal systems	6	2
11	Fire & Irrigation Systems, Standard of Practice	Fire, Irrigation and Grey Water Plumbing Project	7	2
12	Case Studies 1 & 2	Reporting, Defect Photos	8	2
13	Project - Exam Prep & Review	Legal Case Study, Defect Photos	8	2
14	Exam	Summary Review	2	2
			80	28

### 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 previous topics as part of a review and reinforcement process.