

## **PRINCIPLES OF HOME INSPECTION**

**Time (hours)**

### **Communication and Professional Practice**

**6**

Reading Assignment 1.1  
Introduction  
Standards of Practice  
Reading Assignment 1.2  
Pre-Purchase Home Inspection: A View from  
the Outside  
Fire Impressions: Vehicles, Attire, and Tools  
The Inspection Process  
Report Writing  
Reading Comprehension Quiz 1  
Interactive Exercises  
Unit Exam 1

### **Exteriors**

**9.5**

Reading Assignment 2.1  
Introduction  
Overview of Exterior Cladding  
Wall Assemblies  
General Inspection Issues  
Brick, Stone, and Concrete  
Stucco  
Synthetic Stucco (EIFS)  
Wood Siding  
Reading Assignment 2.2  
Plywood, Hardboard, and OSB Siding  
Metal and Vinyl Siding  
Asbestos Cement Siding  
Modern Fiber-Cement Siding  
Clay and Slate Shingles  
Asphalt Shingles  
Exposed Foundations  
Reading Assignment 2.3  
Soffits and Fascia  
Windows and Doors  
Trim, Flashings, and Caulking  
Reading Assignment 2.4  
An Overview of Exterior Structures  
Porches, Decks, and Balconies  
Reading Assignment 2.5  
Garages and Carports  
Reading Assignment 2.6  
An Overview of Surface Water Control and  
Landscaping  
Lot Grading  
Gutters and Downspouts  
Reading Assignment 2.7  
Window Wells  
Walks, Driveways, and Grounds  
Retaining Walls  
Reading Comprehension Quiz 2  
Interactive Exercises  
Unit Exam 2

## **Roofing**

**8.5**

### Reading Assignment 3.1

- Introduction
- General Strategies for Steep Roofs
- Asphalt Shingles
- Wood Shingles and Shakes
- Slate
- Clay Tile

### Reading Assignment 3.2

- Concrete Tile
- Fiber Cement Shingles
- Metal Roofing
- Roll Roofing
- Steep Roof Flashings

### Reading Assignment 3.3

- Introduction to Flat Roofing
- Built-Up Roofing
- Modified Bitumen
- Synthetic Rubber
- Plastic Roofing

### Reading Assignment 3.4

- Metal Roofing (Again)
- Roll Roofing (Again)
- Flat Roof Flashings

### Reading Comprehension Quiz 3

- Interactive Exercises
- Unit Exam 3

## **Structure**

**9.5**

### Reading Assignment 4.1

- Introduction
- A Primer on Cracking
- Footings and Foundations

### Reading Assignment 4.2

- Introduction to Floors
- Sills
- Columns
- Beams

### Reading Assignment 4.3

- Joists
- Subflooring
- Concrete Floor Slabs

### Reading Assignment 4.4

- Introduction to Wall Systems
- Solid Masonry Walls
- Wood Frame Walls
- Masonry Veneer Walls
- Arches and Lintels

### Reading Assignment 4.5

- An Overview of Roof Structure
- Rafters, Roof Joists, and Ceiling Joists
- Collar Ties
- Knee Walls and Purlins
- Trusses
- Wood "I" Joists
- Roof Sheathing

Reading Comprehension Quiz 4  
Interactive Exercises  
Unit Exam 4

**Insulation**

**6**

Reading Assignment 5.1  
Introduction  
Definitions and Basic Concepts  
Insulation Materials  
Air/Vapor Barrier Materials  
Venting Roofs  
Venting Living Spaces  
Attic Inspections  
Reading Assignment 5.2  
Flat and Cathedral Roof Inspections  
Inspecting Walls above Grade  
Inspecting Basements and Crawlspaces  
Inspecting Floors over Unheated Areas  
Exhaust Fans  
Reading Comprehension Quiz 5  
Interactive Exercises  
Unit Exam 5

**Interiors**

**6**

Reading Assignment 6.1  
Introduction  
Floors  
Walls  
Ceilings  
Trim, Counters, and Cabinets  
Stairs  
Reading Assignment 6.2  
Windows, Skylights, and Solariums  
Doors  
Wet Basements and Crawlspaces  
Reading Comprehension Quiz 6  
Interactive Exercises  
Unit Exam 6

**Electrical Systems**

**9.5**

Reading Assignment 7.1  
Introduction  
The Basics of Electricity  
Service Drop  
Service Entrance Wires  
Service Size  
Reading Assignment 7.2  
Service Box  
System Grounding  
Reading Assignment 7.3  
Distribution Panels  
Conditions Found in Panels  
Reading Assignment 7.4  
Branch Circuit Wiring  
Reading Assignment 7.5  
Lights, Outlets, Switches, and Junction Boxes

Smoke Detectors  
Reading Comprehension Quiz 7  
Interactive Exercises  
Unit Exam 7

**Gas Furnaces**

8

Reading Assignment 8.1  
Introduction  
Gas Piping  
Combustion Air  
Gas Burner  
Heat Shield  
Heat Exchangers  
Furnace Cabinets  
Reading Assignment 8.2  
Fan Controls and High Limit Switches  
Thermostats  
Venting Systems and Vent Connectors  
Distribution System  
Reading Assignment 8.3  
Inspection and Testing Procedure for Conventional  
Gas Furnaces  
Mid-Efficiency Furnaces  
Condensing Furnaces  
Gravity Furnaces  
Life Expectancies of Furnaces  
Reading Comprehension Quiz 8  
Interactive Exercises  
Unit Exam 8

**Oil Furnaces**

3.5

Reading Assignment 9  
Introduction  
Oil Storage Tanks  
Oil Fill and Vent Pipes  
Oil Supply Lines  
Oil Filter  
Oil Burner  
Refractory/Fire Pot  
Primary Controller  
Barometric Damper/Draft Regulator  
Vent Connector  
Mid-Efficiency Oil Burners  
Sequence of Operation for an Oil Furnace  
Efficiency  
Gravity Oil Furnaces  
Reading Comprehension Quiz 9  
Interactive Exercises  
Unit Exam 9

**Hot Water Boilers**

6

Reading Assignment 10.1  
Introduction  
An Overview of Boilers  
Heat Exchangers  
Controls

Reading Assignment 10.2  
Distribution Systems  
Reading Assignment 10.3  
Sequence of Operation of Boilers  
Mid and High-Efficiency Boilers  
Life Expectancy  
Capacity  
Reading Comprehension Quiz 10  
Interactive Exercises  
Unit Exam 10

**Other Aspects of Heating**

**7.5**

Reading Assignment 11.1  
Introduction  
An Overview of Chimneys  
Masonry Chimneys  
Metal Chimneys or Vents  
Reading Assignment 11.2  
Wood Stoves  
Reading Assignment 11.3  
Wood Burning Fireplaces  
Reading Assignment 11.4  
Electric Heating  
Reading Comprehension Quiz 11  
Interactive Exercises  
Unit Exam 11

**Air Conditioning and Heat Pumps**

**6**

Reading Assignment 12.1  
Introduction  
The Basics of Cooling  
Air Conditioning Capacity  
Compressor  
Condenser Coil  
Water-Cooled Condenser Coil  
Evaporator Coil  
Expansion Device  
Reading Assignment 12.2  
Condensate System  
Refrigerant Lines  
Condenser Fan  
Evaporator Fan  
Duct Systems  
Thermostats  
Life Expectancy of Compressors  
An Overview of Heat Pumps  
Heat Pump Conditions  
Reading Comprehension Quiz 12  
Interactive Exercises  
Unit Exam 12

**Plumbing**

**9.5**

Reading Assignment 13.1  
Introduction  
Supply Plumbing  
Reading Assignment 13.2

Water Heaters  
Reading Assignment 13.3  
Drain Piping  
Traps  
Floor Drains  
Reading Assignment 13.4  
Venting Systems  
Sewage Ejector Pumps  
Sump Pumps  
Reading Assignment 13.5  
Basins, Sinks, and Laundry Tubs  
Faucets  
Hose Bibbs  
Reading Assignment 13.6  
Toilets  
Bathtubs  
Tub and Shower Stall Enclosures  
Shower Stalls  
Whirlpool Baths  
Reading Comprehension Quiz 13  
Interactive Exercises  
Unit Exam 13

**Appliances**

**2.5**

Reading Assignment 14  
Introduction  
Ranges  
Ovens  
Exhaust Vents  
Dishwashers  
Waste Disposers  
Trash Compactors  
Central Vacuum System  
Door Bells  
Laundry Facilities  
Monthly Energy Consumption of Household  
Appliances  
Reading Comprehension Quiz 14  
Interactive Exercises  
Unit Exam 14

**Final Exam**

**2**

**Total**

**100**