WASHINGTON STATE DEPARTMENT OF LICENSING
REAL ESTATE PROGRAMS
EDUCATION UNIT

FUNDAMENTALS OF HOME INSPECTION COURSE CURRICULUM

Updated: March 2017

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ATTRIBUTION

The Washington State Department of Licensing (Department) and the Washington State Home Inspector Advisory Licensing Board (Board) would like to thank the Examination Board of Professional Home Inspectors (EBPHI) for providing the template and other reference materials for the development of this curriculum. EBPHI's *National Home Inspector Examination ® Professional Home Inspector Role Delineation Study (February 2014)* as well as *National Home Inspector Examination ® Overview: Policies, Procedures, Content, and Outline* both served as the foundation for this edition of the Department and Board's curriculum. As such, the content outline for the National Home Inspector Examination ® has been fully adopted in this edition of the curriculum, with minor changes to account for Washington State laws and rules, as well and regionally-specific and home inspection-related topics and issues.

INTRODUCTION

During the 2008 legislative session, the Washington State Legislature passed ESSB 6006. The new law was codified as Chapter 18.280 RCW: Home Inspectors and required individuals performing home inspections to register and receive a license through the Washington State Department of Licensing (DOL). Further, the law required inexperienced individuals seeking a home inspector's license to complete a 120-clock hour course in home inspection fundamentals.

In December 2008, the Washington State Home Inspector Advisory Licensing Board (Board), under the guidance of DOL, developed the Washington State Fundamentals of Home Inspection prelicensing curriculum. Soon after, course providers adopted the curriculum and began educating prospective home inspectors for licensure.

Throughout 2016, the DOL and the Board engaged in a dialogue regarding the need to update the 2008 curriculum to meet evolving industry needs, course participant needs, requirements of new legislation and rule making, and further promote the competency of licensees.

As a result of this ongoing dialogue and a strong stakeholder response in favor of updating the curriculum, DOL and the Board utilized the following data points to guide the eventual content determinations for this final 2017 edition of the curriculum:

- An alignment review of RCW, WAC and other legislative mandates
- An assessment of course outcomes based on licensing examination pass-rates and subject-level results from January 2015-September 2016
- An assessment of home inspector compliance data
- An identification of new key issues/trends and out-of-date content/topics based on stakeholder input via survey process conducted September 2016
- An assessment of alignment with testing provider role delineations/job analyses, specifically the 2015 National Home Inspector's Examination Content Outline

This 2017 edition of the Washington State Fundamentals of Home Inspection Curriculum was approved by the Board on March 9, 2017.

RECOMMENDED LEARNING LEVELS

Recommended Learning Levels
Washington State Fundamentals of Home Inspection..... B1/B2

In developing the recommendations for this edition of the Washington State Fundamentals of Home Inspection Curriculum, the Washington State Department of Licensing (DOL) and Washington State Home Inspector Advisory Licensing Board (Board) analyzed the recommended topics with respect to desirable learning levels.

Learning levels, known as "Bloom's Taxonomy," are described in the designations below. These designations are used to identify the learning level recommended for a particular set of topics. A higher designation assumes that students have also achieved lower designated learning levels.

The learning objectives of the Washington State Fundamentals of Home Inspection Curriculum are intended to make a person minimally competent to enter the home inspection profession. The course focuses on the following topic areas:

- Building Sciences
- Analysis and Reporting
- Business Operations

Given the difficulty of attaining higher learning levels with only 120 clock hours of classroom instruction and still cover all required topic areas, topics in this curriculum should be taught at the B-1: Knowledge and B2: Comprehension levels. Additionally, while it is not required that subjects be taught in the sequence shown in this curriculum, every education provider must ensure that the courses taught meet the basic learning objectives required to ensure that inspectors are minimally competent.

B-1 Knowledge

Knowledge is defined as the remembering of learned material. This may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required is the remembering of the appropriate information.

Examples: Know definitions of common terms, basic concepts, methods and procedures and principles.

B-2 Comprehension

Comprehension is defined as the ability to grasp the meaning of material. These learning levels go one step beyond the simple remembering of material and represent the lowest level of understanding.

Examples: Understand and interpret facts and principles.

B-3 Application
Application is defined as the ability to use learned material in new situations.

Examples: Apply laws and theories to practical situations. Demonstrate correct usage of a method or procedure.

B-4 Analysis
Analysis refers to the ability to study or determine the nature and relationship of the parts.

Examples: Distinguish between fact and inference and evaluate the relevancy of data.

B-5 Synthesis
Synthesis refers to the ability to put parts together to form a new whole. Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns or structures.

Examples: Propose a plan for an experiment, integrate learning from the different areas into a plan for solving a complex problem.

B-6 Evaluation
Evaluation refers to the ability to determine the significance or worth of something by careful study.

Examples: Form a valid opinion through weighing of evidence.

RECOMMENDED HOURLY BREAKDOWN

Required Classroom Clock Hours
Washington State Fundamentals of Home Inspection.....Total: 120 Clock Hours

Though course providers may choose to employ any hourly breakdown that meets the required (120) clock hours for Washington State Fundamentals of Home Inspection, the following hourly breakdown is recommended. The breakdown was developed using topic-coverage ratios for the examination questions in the National Home Inspector Examination ®, as well as subject matter expert input.

Recommended Hourly Breakdown

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Educational Objective 2: Exterior Components 2
Educational Objective 3: Roofing.....4
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REQUIRED TOPIC AREAS AND EDUCATIONAL OBJECTIVES

TOPIC AREA I: BUILDING SCIENCE

Upon completion of this unit, the learner will know and be able to:

Educational Objective 1: Site Conditions

Identify and inspect site conditions using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues that can affect the building or people. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Vegetation, Grading, Drainage, and Retaining Walls

i. Common retaining wall types, materials, applications, installation methods, construction techniques, and clearance requirements
ii. Common grading and drainage system types, materials, applications, installation methods, and construction techniques
iii. Typical defects (e.g., negative grade, site drainage problems)
iv. Typical vegetation and landscape conditions, maintenance practices, and how they affect the building
v. Maintenance concerns and procedures
vi. Safety issues, applicable standards, and appropriate terminology

b. Driveways, Patios, and Walkways

i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., root damage, trip hazards)
iii. Maintenance concerns and procedures
iv. Safety issues, applicable standards, and appropriate terminology

c. Decks, Balconies, Stoops, Stairs, Steps, Porches, & Applicable Railings

i. Common types, materials, applications, installation methods, and construction techniques
ii. Attachment methods (e.g., lag screws, bolts, web joists, TGI joists, cantilevered flooring)
iii. Deck load to grade transfer theory (e.g., deck to joist to girder to post to grade)
iv. Typical defects (e.g., flashing, railings, decayed wood, results of deferred
v. Maintenance/design concerns and procedures
vi. Safety issues, applicable standards, and appropriate terminology

Educational Objective 2: Exterior Components

Identify and inspect building exterior components using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues that can affect people or the performance of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Wall Cladding, Flashing, Trim, Eaves, Soffits, and Fascia

i. Common types (e.g., stucco, composite siding, aluminum and vinyl cladding, SIPs, EIFS, step flashing)
ii. Typical defects (e.g., cracking, improper installation, water infiltration, decay)
iii. Maintenance concerns and procedures
iv. Safety issues, applicable standards, and appropriate terminology

b. Exterior Doors and Windows

i. Common door and window types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., delaminating, decayed wood, thermal seal failure, flashings, cracked glass)
iii. Maintenance concerns and procedures
iv. Safety issues, applicable standards, appropriate terminology, and glazing requirements (e.g., egress requirements, safety glazing, release for security bars)

Educational Objective 3: Roofing

Identify and inspect roofing components using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues that can affect people or the performance of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

c. Roof Coverings

i. Common roof-covering types, materials, applications, installation methods, and construction techniques requirements
ii. Typical roof covering repair methods and materials
iii. Typical defects (e.g., improper installation, cracking, curling, deterioration, damage)
iv. Characteristics of different roofing materials
v. Sheathing and underlayment requirements for different types of roof coverings
vi. Maintenance concerns and procedures
vii. Safety issues, applicable standards, and appropriate terminology

d. Roof Drainage Systems

i. Common drainage system types, materials, applications, installation methods, and construction techniques (e.g., slope, gutters, roof drains, scuppers)
ii. Typical modifications, repairs, upgrades, and retrofits methods and materials
iii. Typical defects (e.g., ponding, improper slopes, clogging/leaking, disposal of roof water runoff)
iv. Maintenance concerns and procedures
v. Safety issues, applicable standards, & appropriate terminology

e. Flashings

i. Common types, materials purpose, applications, installation methods, and construction techniques
ii. Typical defects (e.g., separation, corrosion, improper installation, missing flashing)
iii. Maintenance concerns and procedures
iv. Safety issues, applicable standards, & appropriate terminology

f. Skylights and Other Roof Penetrations

i. Common skylight and other roof penetration types, materials, applications, installation methods, & construction techniques
ii. Typical defects (e.g., cracked glazing, improper installation, deterioration, failure, faulty flashing)
iii. Maintenance concerns and procedures safety issues, applicable standards, and appropriate terminology

Educational Objective 4: Structural System

Identify and inspect structural system elements using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues that may affect people or the structural stability of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Foundation

i. Common foundation types, materials, applications, installation methods, and construction techniques
ii. Typical foundation system modifications, repairs, upgrades and retrofits, methods and materials
iii. Typical defects (e.g., cracks, settlement, decomposition, failed damp-proofing) and their common causes and effects.
iv. Soil types & conditions and how they affect foundation types
v. Applied forces and how they affect foundation systems (e.g., wind, seismic, loads)
vi. Safety issues, applicable standards, & appropriate terminology
vii. Water management (e.g., grading, foundation drains, sumps)

b. Floor Structure

i. Common floor system types (e.g., trusses, joists, concrete slabs), materials, applications, installation methods, and construction techniques
ii. Typical modifications, repairs, upgrades and retrofits, methods and materials
iii. Typical defects (e.g., improper cuts and notches in structural members, decayed or damaged structural members, effects of long-term loading and/or bearing & environmental exposure)
iv. Limitations of framing materials (e.g., span)

v. Applied forces and how they affect floor systems (e.g., wind, seismic, loads)
vi. Safety issues, applicable standards, & appropriate terminology

c. Walls and Vertical Support Structures
i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical modifications, repairs, upgrades and retrofits, methods and materials
iii. Typical defects (e.g., decayed or damaged structural members, earth to wood contact, structural deformation)
iv. Seismic and wind-resistant construction methods and hardware
v. Fire blocking and fire walls
vi. Safety issues, applicable standards, & appropriate terminology

d. Roof and Ceiling Structures
i. Common roof and ceiling structure types, materials, applications, installation methods, and construction techniques
ii. Typical roof structure modifications, repairs, upgrades and retrofits, methods and materials
iii. Acceptable truss and ceiling structural-member modifications, repairs, upgrades, and retrofits methods and materials
iv. Roof and ceiling structure conditions and defects (e.g., moisture stains, fungal/ mold growth, sagging rafters, modified/damaged trusses, decayed or damaged structural members)
v. Limitations of framing materials (e.g., span)
vi. Applied forces and how they affect roof/ceiling structures (e.g., wind, seismic, loads)
vii. Safety issues, applicable standards, and appropriate terminology
viii. Seismic and wind-resistant construction and hardware
ix. Maintenance concerns and procedures

Educational Objective 5: Electrical System

Identify and inspect electrical system elements using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues or affect people. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Electrical Service: Service Entrance, Service Lateral, Service Conductors, Service Equipment, and Service Grounding
i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical modifications, repairs, upgrades and retrofits, methods and materials
iii. Typical defects (e.g., water and rust in panel equipment, height, deteriorated conductor sheathing)
iv. Electrical service capacity
v. Electrical service/system grounding and bonding
vi. Maintenance concerns and procedures

vii. Safety issues, applicable standards, and appropriate terminology

b. Interior Components of Service Equipment and Sub-Panels

i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical modifications, repairs, upgrades and retrofits, methods and materials
iii. Typical defects (e.g., un-bonded sub-panels, multiple-lugging/tapping, over-fusing)
iv. Main disconnects
v. Panel bonding
vi. Proper sub-panel installations
vii. Proper sub-panel neutral isolation
viii. Panel wiring
ix. Over-current protection devices
x. Function of circuit breakers and fuses
xi. Maintenance concerns and procedures
xii. Inspection safety procedures
xiii. Safety issues, applicable standards, and appropriate terminology

c. Wiring Systems

i. Common types, materials, applications, & installation methods
ii. Typical modifications, repairs, upgrades and retrofits, methods and materials
iii. Typical defects (e.g., open splices, exposed non-metallic cable)
iv. Problems with aluminum wire
v. Obsolete electrical wiring systems (e.g., knob & tube wiring)
vi. Maintenance concerns and procedures
vii. Safety issues, applicable standards, and appropriate terminology

b. Devices, Equipment, & Fixtures (e.g., switches, receptacles, lights)

i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical modifications, repairs, upgrades and retrofits, methods and materials
iii. Typical defects (e.g., reverse polarity, open grounds, faulty GFCIs)
iv. Equipment bonding
v. Wiring, operation, location of typical devices and equipment (e.g., receptacles and lights, appliances, GFCI protection, AFCI protection)
vi. Maintenance concerns and procedures
vii. Safety issues, applicable

Educational Objective 6: Cooling Systems

Identify and inspect cooling systems using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues that may affect people or the performance of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Cooling

i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., vacuum line insulation missing, condensation and/or rust on components, not cooling properly, un-level condenser, frost/ice formation on location of condensing unit)
iii. Theory of refrigerant cycle(latent and sensible heat)
iv. Theory of heat transfer
v. Theory of equipment sizing
vi. Air conditioning and heat pumps
vii. Methods of testing the systems
viii. Condensate control and disposal
ix. Maintenance concerns and procedures
x. Safety issues, applicable standards, & appropriate terminology

b. Distribution Systems

i. Common distribution system types, materials, applications, installation methods, and construction techniques registers,
ii. Typical defects (damaged ducts, incorrect configuration/installation, insufficient air flow, condensation at supply registers, blower operation, and improper air temperature at register)
iii. Methods of testing the system
iv. Maintenance concerns and procedures (e.g. filter, humidifier)
v. Safety issues, applicable standards, & appropriate terminology

Educational Objective 7: Heating Systems

Identify and inspect heating systems using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues that may affect people or the performance of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Heating

i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., cracked heat exchanger, humidifier, dirty fan, improper fuel line installation/material)
iii. Theory of heat transfer and how it takes place in different heating system types
iv. Heating system types (e.g., forced draft, gravity, boiler, hydronic, heat pump, solid fuel)
v. Theory of equipment sizing
vi. Methods of testing the systems
vii. Performance parameters
viii. Condensate control and disposal
ix. By-products of combustion (e.g., H2O, CO2, CO, NO2), their generation, & how & when they become a safety hazard
x. Maintenance concerns and procedures

xi. Safety issues, applicable standards, and appropriate terminology

b. Distribution Systems

i. Common distribution system types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., damaged ducts, incorrect configuration/ installation, insufficient airflow, blower operation, and improper air temperature at register)
iii. Methods of testing the system
iv. Maintenance concerns and procedures (e.g., filter, humidifier)
v. Safety issues, applicable standards, & appropriate terminology

c. Flue and Venting Systems

i. Common venting system types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., separated flue, back drafting, clearance to combustible materials, proper slope, combustion make-up air vent sizing and configuration)
iii. Theory of venting and exhaust flues
iv. Equipment sizing
v. Safety issues, applicable standards, & appropriate terminology

Educational Objective 8: Insulation, Moisture Management, and Ventilation Systems

Identify and inspect insulation, moisture management systems, and attic/interior/crawl space ventilation systems in conditioned and unconditioned spaces using applicable standards for material selection and installation procedures to assess immediate condition and long-term safety and maintenance issues that may affect people or the performance of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Thermal Insulation

i. Common thermal insulation types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., lack of insulation, uneven insulation, damaged insulation, flame spread concerns, improper clearances and alignment)
iii. Theory of heat transfer and energy conservation
iv. Performance parameters (e.g., R-value)
v. Maintenance concerns and procedures
vi. Safety issues, applicable standards, & appropriate terminology

b. Moisture Management

i. Common vapor retarder types, materials, applications, installation methods, and construction techniques

ii. Typical defects (e.g., inadequate ventilation, evidence of condensation)
iii. Theory of moisture generation and movement
iv. Performance parameters
v. Vapor pressure and its effects
vi. Theory of relative humidity
vii. Effects of moisture on building components, occupants, and indoor air quality
viii. Moisture control systems
ix. Appearance or indications of excessive moisture and likely locations for condensation
x. Maintenance concerns and procedures
xi. Safety issues, applicable standards, & appropriate terminology

c. Ventilation Systems

i. Common types, materials, applications, installation methods and construction techniques
ii. Typical ventilation defects and how they affect buildings and people
iii. Theory of air movement in building assemblies (e.g., conditioned vs. unconditioned, draft stopping)
iv. Theory of relative humidity
v. Interdependence of mechanical systems and ventilation systems
vi. Whole house ventilation systems
vii. HRVs and ERVs
viii. Mechanical and passive ventilation systems of Attics, Crawl Spaces, and Roof Assemblies
ix. Night sky radiational cooling and its impacts on attic spaces
x. Appliance vent systems requirements (e.g., clothes dryers, range hoods, bathroom exhausts)
xi. Screening, sizing, and location requirements for vent openings
xii. Maintenance concerns and procedures
xiii. Safety issues, applicable standards, & appropriate terminology

Educational Objective 9: Plumbing Systems

Identify and inspect plumbing systems using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues that may affect people or the performance of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Water Supply Distribution System

i. Common water distribution types, materials, applications, installation methods, and construction techniques
ii. Typical modifications, repairs, upgrades, and retrofits methods and materials
iii. Typical defects (e.g., cross-connection, back flow)
iv. Common water pressure/functional flow problems and how they affect the water distribution system (e.g., softeners, private well equipment, hard water build-up, old galvanized piping, pressure reducer valves, expansion tanks)

v. Pipe defect/deterioration issues (e.g., PVC, galvanized, brass, polybutylene, PEX)
vi. Maintenance concerns and procedures
vii. Safety issues, applicable standards, and appropriate terminology (e.g., understanding of term "functional flow")

b. Fixtures and Faucets

i. Common fixture and faucet types, materials, applications, installation methods, and construction techniques
ii. Typical modifications, repairs, upgrades, and retrofits methods and materials
iii. Typical defects (e.g., cross-connection/back-flow, fixture attachment)
iv. Maintenance concerns and procedures
v. Safety issues, applicable standards, & appropriate terminology

c. Drain, Waste, and Vent Systems

i. Common types, materials, applications, installation methods, and construction techniques (e.g., supports/spacing)
ii. Typical modifications, repairs, upgrades, & retrofits methods and materials (e.g., joining dissimilar piping materials)
iii. Theory and usage of traps and vents
iv. Identification of public or private disposal (when possible)
v. Typical defects (e.g., faulty installation, deterioration, leakage, defective venting or drain slope)
vi. Maintenance concerns and procedures
vii. Safety issues, applicable standards, and appropriate terminology (e.g., understanding of term "functional drainage")

d. Water Heating Systems

i. Common types, materials, applications, installation methods, and construction techniques (e.g., conventional, instant, tankless, indirectly heated, atmospheric/gravity/induced draft)
ii. Typical water heater defects (e.g., improper vent/flue materials and configuration, condition, unsafe locations, connections, compatible to fuel type, temperature and pressure relief system problems)
iii. Accessory items (e.g., drain pans, seismic restraints, expansion tanks, recirculation systems)
iv. Connections to and controls for energy source
v. Combustion, make-up, and dilution air requirements
vi. Maintenance concerns and procedures
vii. Safety issues, applicable standards, and appropriate terminology

e. Fuel Storage and Fuel Distribution Systems

i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., piping supports/spacing, shut-off requirements, unprotected fuel lines, leaking fuel fittings)
iii. Defects in above-ground oil/gas storage tanks

iv. Fuel leak indications, repairs, and remediation methods
v. Basic components of gas appliance valves & their functions
vi. Tank restraints and supports
vii. Underground storage tank indicators and reporting requirements
viii. Maintenance concerns and procedures

f. Safety issues, applicable standards, appropriate terminology, drainage sumps, sump pumps, sewage ejection pumps, related valves and piping
i. Common types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., inoperative sump pumps, improperly installed/designed equipment and systems, alarms, lid seals)
iii. Sump pump location significance
iv. Pump discharge location significance
v. Maintenance concerns and procedures
vi. Safety issues, applicable standards, & appropriate

Educational Objective 10: Interior Components

Identify and inspect interior components using applicable standards for material selection, installation procedures, and maintenance to assess immediate and long-term safety issues as they may affect people or the performance of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Walls, Ceilings, Floors, Doors, and Windows, and other Interior System Components
i. Types of defects in interior surfaces not caused by defects in other systems (e.g., attachment defects, damage)
ii. Typical defects in interior surfaces caused by defects in other systems (e.g., structural movement, moisture stains)
iii. Common wall, ceiling, floor, door, and window type, materials, applications, installation methods and construction techniques
iv. Egress requirements (e.g., window security bar release, basement windows, opening size, sill height, and ladders)
v. Applicable fire/safety and occupancy separation requirements
ii. Operation of windows or doors
iii. Fire and life safety equipment (e.g., knowing when smoke/CO detectors are missing)
iv. Maintenance concerns and procedures
v. Safety issues, applicable standards, and appropriate terminology of common wall, ceiling, floor, door, and\ window types, materials, applications, installation methods, and construction techniques

b. Steps, Stairways, Landings, and Railings
i. Common step, stairway, landing, and railing types, materials, applications, installation methods, & construction techniques
ii. Maintenance concerns and procedures

iii. Typical defects (e.g., loose/damage elements, improper rise/run, inadequate/omitted handrails)
iv. Safety issues, applicable standards, & appropriate terminology

c. Installed Countertops and Cabinets

i. Common cabinet and counter top types, materials, applications, installation methods, and construction techniques
ii. Typical defects (e.g., unsecured cabinets and countertops, damaged components)
iii. Maintenance concerns and procedures
iv. Safety issues, applicable standards, & appropriate terminology

d. Garage Vehicle Doors and Operators

v. Common garage vehicle doors and door operator types, materials, applications, installation methods, and construction techniques
vi. Typical defects (e.g., damaged components, safety considerations, spring retention, opener adjustment)
vii. Maintenance concerns and procedures
viii. Safety issues, applicable standards, & appropriate terminology

Educational Objective 11: Fireplace and Chimney Systems

Identify and inspect fireplace and chimney systems using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues that may affect people or the performance of the building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Fireplaces, Solid-Fuel Burning Appliances, Chimneys, & Vents

i. Common manufactured fireplaces (e.g., gas, vented, direct vent, non-vented) & solid-fuel burning appliance types, materials, applications, installation methods, & construction techniques
ii. Common manufactured fireplaces and solid-fuel burning appliance chimney, vent connector, and vent types, materials, applications, installation methods and construction techniques of direct-vent and non-vented fireplaces
iii. Common masonry fireplace types, masonry flues, materials, applications, installation methods, & construction techniques
iv. Chimney terminations (e.g., spark arrestors, chimney cap)
v. Chimney foundation, height and clearance requirements
vi. Theory of heat transfer
vii. Effects of moisture and excessive heat on fireplaces
ii. Fuel types and combustion characteristics, air supply, and combustion air requirements
iii. Typical defects (e.g., hearth defects, clearance requirements, firebox damage, damper problems, smoke chamber and flue issues, shared flue considerations)
iv. Operation of equipment, components, and accessories
v. Maintenance concerns and procedures

vi. Safety issues, fire safety fundamentals, applicable standards, and appropriate terminology

Educational Objective 12: Permanently Installed Kitchen Appliances[1]

Identify and inspect common permanently installed kitchen appliances for proper condition and operation. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Installation

b. Operating using normal controls

c. Typical defects (e.g., appliance not anchored/leveled, rusting racks, leaking unit, missing air gap)

d. Maintenance concerns and procedures

e. Safety issues, applicable standards, manufacturer's specifications, and appropriate terminology

Educational Objective 13: Pool and Spa Systems[2]

Identify and inspect pool and spa systems using applicable standards for material selection and installation procedures to assess immediate and long-term safety and maintenance issues. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Types of construction
   i. Perimeter coping and water level finish
   ii. Shell interior finish (e.g., plaster, vinyl, pebble/synthetic)
   iii. Entrapment prevention (e.g., dual drains, anti-vortex lid)
   iv. Permanently installed handrails and ladders

[1]Please note that current Washington State Standards of Practice (SOP) do not require inspection of permanently installed kitchen appliances. However, inasmuch as this curriculum is aligned with the National Home Inspector Examination ®, prospective home inspector licensees should be made aware of this educational objective as material that may appear on the National Home Inspector Examination ®, and throughout their practice as a licensed home inspector.

[2] Please note that current Washington State Standards of Practice (SOP) do not require inspection of pool and spa systems. However, inasmuch as this curriculum is aligned with the National Home Inspector Examination ®, prospective home inspector licensees should be made aware of this educational objective as material that may appear on the National Home Inspector Examination ®, and throughout their practice as a licensed home inspector.

b. Mechanical systems
   i. Pump, motors, blowers, skimmer, filter, drains, gauges
   ii. Piping and valves
   iii. Cleaning systems (e.g., in-floor heads, pool sweeps)
   iv. Heating (e.g., gas, electric, solar)

c. Electrical systems
   i. Lighting and GFCI protection
   ii. Timers and controls
   iii. External bonding (e.g., pump motors, blowers, heater shell)

d. Typical defects (e.g., inoperative equipment, piping leaks, damage/deterioration of components)

e. Maintenance concerns and procedures

f. Safety issues (e.g., child-safe barriers or components), applicable standards, and appropriate terminology

Educational Objective 14: Lawn Irrigation Systems[3]

Identify and inspect lawn irrigation systems using applicable standards for material selection and installation procedures and to assess immediate and long-term safety and maintenance issues that may affect the performance of the system and building. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Common material types, applications, installation methods, and construction techniques
   i. Typical modifications, repairs, upgrades and retrofits, methods and materials
   ii. Timers and controls (e.g., timing device, manual valves)
   iii. Typical defects (e.g., leaks, poor adjustment, inoperative components, cross-connection/back flow, proximity and possible effects on building)
   iv. Common water pressure/flow problems and how they affect the water distribution system
   v. Visible and accessible pipe deterioration issues (e.g., PVC, galvanized, brass)
   vi. Maintenance concerns and procedures
   vii. Safety issues, applicable standards, and appropriate terminology

Educational Objective 15: Alternative Construction Methods

Identify and inspect alternative construction methods. Know which professional and/or resource

[3] Please note that current Washington State Standards of Practice (SOP) do not require inspection of lawn irrigation systems. However, inasmuch as this curriculum is aligned with the National Home Inspector Examination ®, prospective home inspector licensees should be made aware of this educational objective as material that may appear on the National Home Inspector Examination ®, and throughout their practice as a licensed home inspector.

is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. The differences between conventionally built homes and modular and manufactured homes and understand inspection issues commonly encountered with modular and manufactured homes.

b. Insulated concrete form (ICF) systems are and how to recognize and inspect them.

c. Inspection issues unique to milled log versus hand-scribed log homes.

d. Structural insulated panel systems (SIPS) and their unique inspection issues.

e. Other types of uncommon construction techniques.

f. And explain deficiencies of these structures and components to the client using language the client can understand.

g. How to properly describe these structures and components and report their deficiencies in the written report.

Educational Objective 16: Environmental Conditions and Hazardous Materials

Identify and inspect for environmental conditions and hazardous materials. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. What radon gas is, what the "hot" spots are in Washington State and how and when to report the presence of radon gas.

b. Rules that apply to abandoned underground oil storage tanks (UST) under Washington State Law.

c. What mold is and what factors contribute to the formation and spread of mold in residential construction.

d. What asbestos is, the potential health implications of its presence in homes, what materials commonly contain asbestos fiber and what constitutes friable asbestos.

e. What lead is and what materials in a home commonly contain lead.

f. Hazards associated with exposure to other environmental conditions or hazardous materials, including but not limited to urea formaldehyde, electro-magnetic fields microwaves, etc.

g. Intelligently answer the client's questions about these issues or refer the client to an appropriate professional when the answers aren't known.

TOPIC AREA II: ANALYSIS AND REPORTING

Upon completion of this unit, the learner will know and be able to:

Educational Objective 1: Building Systems and Components

In the inspection report, identify building systems and components by their distinguishing characteristics (e.g., purpose, type, size, location) to inform the client what was inspected.

Specifically, the learner will know and be able to identify and define:

a. **Minimum information required in an inspection report (e.g., property data, construction materials, installation techniques and procedures, locations of main system shutoffs)**

b. **Describing the type of systems & the location of system components**

c. **Correct technical terms to describe systems and components of the building**

Educational Objective 2: Inspection Methods and Limitations

In the inspection report, describe inspection methods and limitations in the inspection report to inform the client what was inspected and what was not inspected and the reason why it was not inspected.

Specifically, the learner will know and be able to identify and define:

a. **Minimum and critical information required in an inspection report (e.g., weather conditions, inspection safety limitations, components not accessible)**

b. **Common methods used to inspect particular components (e.g., roofs, attics, sub-floor crawl spaces, mechanical components)**

Educational Objective 3: Defective and Nonfunctioning Systems and Components

In the inspection report, Describe systems and components inspected that are not functioning properly or are defective.

Specifically, the learner will know and be able to identify and define:

a. **Common expected service life of building & mechanical components**

b. Common indicators of potential failure (e.g., rust & corrosion, unusual noise, excessive vibration, and/or lack of routine maintenance

c. Common safety hazards

d. Common test instruments and their proper use for qualitative analysis (e.g., moisture meters, CO meters, probes)

Educational Objective 4: Recommendations for Correction

List recommendations to correct deficiencies or items needing further evaluation. Know which professional and/or resource is most appropriate to refer a client to for maintenance/correction of defects.

Specifically, the learner will know and be able to identify and define:

a. Correct professional or tradesperson required to effect repairs or perform further evaluations

b. Common remedies for correction

c. Relationships between components in the building

e. When to immediately inform building occupants of a life threatening safety hazard (e.g., gas leak, carbon monoxide accumulation)

TOPIC AREA III: BUSINESS OPERATIONS

Upon completion of this unit, the learner will know and be able to:

Educational Objective 1: Elements of the Written Inspection Contract

Identify the elements of the written inspection contract (e.g., scope, limitations, terms of services) to establish the rights and responsibilities of the inspector and client.

Specifically, the learner will know and be able to identify and define:

a. Purpose of a contract

b. Elements of a contract (e.g., names of parties, scope of inspection, terms of service, exclusions and limitations, address, date and times of inspection, limits of liability, dispute resolution, and understanding State specific elements)

c. How home inspections relate to the real estate transaction.

d. Timing of delivery and signing contract

Educational Objective 2: Responsibilities to the Client

Identify responsibilities to the client in order to maintain the quality, integrity, reputation, and objectivity of the inspection process while protecting the client's interests.

Specifically, the learner will know and be able to identify and define:

a. Legal concepts

i. Fundamental legal concepts (e.g. fiduciary responsibility, contractual responsibility, liability, negligence, due diligence, and consumer fraud
ii. Licensing requirements (Chapter 18.280 RCW; Chapter 308-408, 408A, and 408B WAC)
iii. The Washington State Standards of Practice (SOP) for home inspections (Chapter 308-408C WAC)
iv. Washington State Code of Ethics (COE) for home inspectors (Section 308-408C-020 WAC)
v. Limitations of a visual inspection versus a technically exhaustive inspection.
vi. Boundaries of personal expertise and professional scope of practice (e.g., don't exceed your area of expertise)
vii. Identify conflicts of interest to the client (e.g., inspector interest in the property, third-party stakeholders with financial interest in the outcome of the inspection

b. Building Codes

i. The difference between a municipal building inspector and a home inspector and understand the core competencies unique to each as well as their common core competencies.
ii. Where and how to determine which codes are being used in one's areas of operation.
iii. How to look up code requirements in code publications.
iv. Which code violations are most commonly encountered by home inspectors.
v. And explain possible code violations found to the client using language the client can understand.
vi. How and when to refer the client to the Authority Having Jurisdiction (AHJ) to resolve potential code issues.
vii. How to deal with customer complaints most effectively.

c. Business Operations

i. General customer service skills and interpersonal communication skills unique to home inspectors.
ii. Types and purpose of financial protection (e.g., general liability, professional E&O, bonding, and warranties).
iii. Business records that must be maintained under state law.