General Information

The exams are closed book and no reference materials are allowed in the examination room. Turn off and put away all cell phones and other communication devices. DO NOT MARK IN THE EXAM BOOKLET. Scratch paper will be provided. Only the answer “bubbles” filled in on the answer sheet will be graded by an Optical Mark Reader (OMR) scanner as shown in the diagram to the right. The Home Inspector exam contains 200 multiple-choice questions and has a four-hour time limit. The only time interval that will be announced is the last ten minutes. There is only one correct answer per question. Choose the best answer. Each correct answer is worth 1/2 point. The passing score is 70. A score of 69.5 does not pass.

You will receive notification via email that your score results are available to view through the Board website www.nchilb.com within 10 working days. Please do not ask the staff for your grade upon completion of your exam. Please do not call the staff for your grade. If you do not pass this exam, you may register for additional exams as needed. However, you will have to pay the exam fee each time and NC General Statute § 143-151.57(b) requires 180 days (6 months) waiting period between exam attempts. If you do not pass this exam, you may come in and review your exam and the questions you answered incorrectly. You will be informed of the dates of the exam review with your grade.

Preparing for the Home Inspector Examination

How does an applicant for licensure prepare for this test? What do I need to study?

The short answer is: “By getting the necessary education and training and becoming thoroughly familiar with the applicable laws and agency rules.” The long answer is: The North Carolina Licensure Board exam is intended to test a minimum level of knowledge, defect recognition, understanding and client service across all areas needed to practice home inspection for compensation. There are training courses available through pre-licensing education sponsors and training centers some of which provide video courses for study at home or via websites on the internet. Additional courses are available through continuing education seminars offered by professional home inspection associations for their members. There are also some field training options with experienced inspectors.

But often we have to train ourselves at home and without the help of teachers. There are some excellent manuals written by home inspectors that provide a personal, first person perspective. Others, published by organizations or corporations are more elaborate and are intended for comprehensive inspector training programs or schools.

Home inspectors may supplement their knowledge through community college courses on building code enforcement, construction trade licensing preparation (i.e. general contracting, carpentry, electrical, HVAC, plumbing, etc.). There are excellent books for tradespeople who want to study code requirements and building methods both inside and outside their area of expertise. While licensed contractors may have an advantage with certain parts of the home inspector exam in their specialty, a home inspector must have general knowledge in all areas of residential systems and components in order to provide a comprehensive written report to their client following the end of the physical inspection of the property. While home inspectors in North Carolina are allowed by law to cite certain defects as violations of the “Residential Building Code,” strict requirements apply and it is often difficult to do so since the construction date of the house and applicable codes at the time of construction must be reported. Therefore, such defects are commonly reported as conditions that “may affect the safety or habitability of the occupants.” Candidates for licensure benefit by having a cursory knowledge of the codes, why the requirements are as they are, and how the codes have changed over time. The codes also provide useful definitions and terminology for common building systems and components.

The enclosed bibliography provides a representative list of resources to consult for further information.
“North Carolina Standards of Practice (SOP)”

The following is a list of topics for study which might be on the license exam or considered for future exams. This is not a complete list of all topics covered by the exam, nor a list of all skills or activities necessary to perform a competent inspection. For example, this list does not include specific minimum reporting requirements for each system or component that is essential for proper DDID.

1. **Structure**
   A. Component Identification and Terminology
      - Identify different foundation, wall, floor and roof framing components.
      - Identify different structure types (e.g., masonry vs frame wall)
      - Identify wind load bracing components.
      - Identify foundation waterproofing and drainage components.
   B. Defect Recognition and Analysis
      - Recognize causes and importance of foundation and wall cracks.
      - Recognize causes and importance of defects of wood framing components (e.g., decay and deflection).
      - Recognize conditions likely to result in decay and moisture deterioration.
      - Recognize evidence of movement of the structure (differential settlement from uniform settlement).
      - Recognize roof and floor truss defects.
   C. Proper System Operation
      - Understand difference between cosmetic and structurally significant cracks.
      - Understand sequence of residential construction procedures.
   D. Construction Methods and Materials
      - Understand wood frame construction methods and materials of floors, walls, and roofs.
      - Understand purpose of high wind and high water protection components.

2. **Roofing**
   A. Component Identification and Terminology
      - Identify roof types (e.g., hip, gable, gambrel, etc.)
      - Identify roof covering and sheathing materials.
      - Identify components of roof penetrations and flashings.
      - Identify roof drainage system components.
   B. Defect Recognition and Analysis
      - Recognize the signs of deterioration of the different roof covering types and their impact on service life.
      - Recognize roofing defects that can lead to damage of the structure.
      - Recognize the common causes and locations of leakage.
      - Recognize distinction between leakage and condensation.
      - Recognize signs of improper roof covering installation.
   C. Proper System Operation
      - Understand roof drainage requirements.
      - Understand the factors which affect the service life of roof covering materials.
   D. Construction Methods and Materials
      - Understand flashing installation for chimneys and walls.
      - Understand basic installation requirements for each type of roof covering materials.
      - Understand chimney size and height requirements.
3. **Exterior**
   A. Component Identification and Terminology
      - Identify different exterior surface materials, flashings and trim.
   B. Defect Recognition and Analysis and Analysis
      - Recognize evidence of chimney movement
      - Recognize distinction between normal wear and failure of the exterior surface materials.
      - Recognize exterior trip and fall hazards (decks, railings, fences etc.)
      - Recognize factors which contribute to basement leakage.
      - Recognize the signs of water penetration.
      - Recognize various window and door defects.
      - Recognize distinction between normal soil behaviors from soil conditions which affect the structure.
   C. Proper System Operation
      - Understand how orientation and environmental factors affect exterior materials.
   D. Construction Methods and Materials.
      - Understand methods of attachment of exterior surface material to the structure.
      - Understand importance of clearances of wood materials from soil level.
      - Understand principles of drainage and grading.

4. **Electrical**
   A. Component Identification and Terminology
      - Identify components in the service and grounding systems.
      - Identify distribution system components.
      - Identify the service voltage and ampacity.
      - Distinguish between wiring materials and their uses (copper, aluminum, etc.).
      - Distinguish different wiring methods and cable types.
      - Identify overcurrent protection devices and uses (fuses, circuit breakers).
      - Identify ground fault protection types and uses.
   B. Defect Recognition
      - Recognize signs of electrical component overheating.
      - Recognize improper branch circuit installation and modification.
      - Recognize improper aluminum branch wiring.
      - Recognize improper receptacle connections.
      - Recognize improper conditions related to damp or wet locations.
      - Recognize improper service grounding conditions.
      - Recognize improper overhead service conductor clearances and insufficient protection.
   C. Proper System Operation
      - Understand how GFCI's function.
      - Understand how the neutral and grounding systems function
      - Understand the operation of smoke and carbon monoxide detectors and alarms
   D. Construction Methods and Materials
      - Understand relationship of conductor sizes to overcurrent protection device sizes in different equipment applications (e.g., air conditioning compressors).
      - Understand grounding and bonding.
5. **Plumbing**
   A. Component Identification and Terminology
      - Identify components of supply and drain systems within a building
      - Distinguish different pipe materials used in supply and drainage pipe.
      - Distinguish different types of traps and vents.
      - Identify components and automatic safety devices of water heating systems.
   
   B. Defect Recognition and Analysis
      - Recognize conditions which may result in contamination of potable water supply.
      - Recognize improper trap and vent installation.
      - Recognize improper fixture trap connections.
      - Recognize corrosion related to dissimilar metals (e.g., copper to galvanized steel).
      - Recognize piping deterioration (e.g., rusted or broken piping).
      - Recognize water heater safety defects
   
   C. Proper System Operation
      - Understand the role of vents in preserving trap seals.
      - Understand how pipes are incorporated into the electrical grounding and bonding system.
   
   D. Construction Methods and Materials
      - Understand shower and tub design requirements for water resistance.
      - Understand the operating principles of different types of water heaters.
      - Understand proper gas and oil pipe installation.

6. **Heating**
   A. Component Identification and Terminology
      - Identify types of heating systems
      - Identify the different energy sources.
      - Identify combustion air, vent, and chimney systems.
      - Identify heat distribution component systems.
      - Identify ancillary components (e.g., humidifiers, filters).
      - Identify operating controls and automatic safety devices.
      - Identify types of heating systems
   
   B. Defect Recognition and Analysis
      - Recognize heat exchanger failure.
      - Recognize improper venting.
      - Recognize improper combustion air.
      - Recognize improper burner/fan operation.
   
   C. Proper System Operation
      - Understand the normal temperature rise for hydronic and forced air systems.
      - Understand the normal cycle operation for hydronic and forced air systems.
   
   D. Construction Methods and Materials
      - Understand operation of hydronic, steam, and forced air heating system components.
      - Understand heat distribution systems design and methods.
7. **Cooling**
   A. Component Identification and Terminology
      - Identify cooling system types.
      - Identify cooling system and heat pump components.
   B. Defect Recognition and Analysis
      - Recognize abnormal operation from temperature differences.
      - Distinguish cooling condensate leaks from other leaks and corrosion.
      - Recognize impediments to normal condenser operation and general cooling effectiveness.
   C. Proper System Operation
      - Understand the normal outside operating temperature range and the impact on performance.
   D. Construction Methods and Materials
      - Understand condensate discharge methods.
      - Understand the modifications required of a forced air heating system to accommodate central air conditioning.

8. **Insulation and Ventilation**
   A. Component Identification and terminology
      - Identify common insulation types and vapor barriers.
      - Identify common means of natural and mechanical ventilation
   B. Defect Recognition and Analysis
      - Recognize signs of condensation.
      - Recognize signs of inadequate ventilation.
   C. Proper System Operation
      - Understand basic attic and crawl space ventilation requirements.
      - Understand application of venting and vapor barriers relative to climate.
   D. Construction Methods and Materials
      - Understand proper installation of vapor barriers.
      - Understand the locations within a house where exterior ventilation is needed.
      - Understand original insulation levels and retrofit methods.
      - Know the current levels of insulation and ventilation required.

9. **Interior**
   A. Component Identification and Terminology
      - Identify basic operating window types
      - Identify basics of safe stair construction
   B. Defect Recognition and Analysis
      - Recognize wall, ceiling, and floor surface defects which arise from underlying structural conditions.
      - Recognize separations, gaps, proper door type and other issues related to the separation of the dwelling from an attached garage or from another dwelling.
      - Recognize defects in normal operation of doors and windows.
      - Recognize potential trip and fall hazards (e.g., railings, guards, steps and stairwells).
   C. Proper System Operation
      - Understand basic characteristics of common interior wall, ceiling and floor materials.
   D. Construction Methods and Materials
      - Understand basic installation methods for common floor, wall and ceiling finishes and basic reasons for surface cracks.
10. **Fireplaces**
   A. Component Identification and Terminology
      • Identify masonry and prefabricated fireplace and flue components.
   
   B. Defect Recognition and Analysis
      • Recognize improper clearances and other visible safety hazards.
   
   C. Proper System Operation
      • Understand proper operation of fireplaces.
   
   D. Construction Methods and Materials
      • Understand installation methods of fireplaces.

11. **Contracts, Report and Summary**
    • Understand the requirements in the NC Administrative Code, Rule .1103 concerning agreements/contracts and home inspection report.
    • Understand the requirements in the NC General Statutes § 143-151.58 regarding the written home inspection report, summary page, State Building Code, insurance requirements, and records retention.
**Bibliography of Suggested Reading and References**

These references are listed to provide an overall view of home construction, plumbing, mechanical, electrical, insulation, ventilation and building envelope systems, components and kitchen appliances. License applicants who have difficulty with the exam may read all or portions of these references for a better understanding of the skills, knowledge and abilities tested that are necessary to perform home inspections for compensation – and thus the minimal qualifications for licensure as a home inspector. **Examination questions are not necessarily taken from these sources.** Some of the references listed below may be out of print or the address of the publisher may be out of date. The books may be available through your county library. If the books in the following list are not available, there should be similar books in the county library or from local bookstores. Where known, website links have been included along with advertised prices. The materials marked with (**) are available at the NCHILB office in the N. C. Dept. of Insurance, 322 Chapanoke Road, Suite 115, Raleigh, NC, and you may examine them there, we do not loan these materials. References marked (†) may be out of print.

**General Reference Materials**

- **A Training Manual for Home Inspectors**, Alfred A. Alk, American Society of Home Inspectors, 932 Lee St., Suite 101, Des Plaines, IL 60016; (800) 743-2744 †
- Audel series of books, John E. Ball, Audel & Co., Div. of Howard Sams & Co., 4300 W. 62nd St., Indianapolis, IN 46268
- **Real Estate Home Inspection: Mastering the Profession**, Russell W. Burgess, Midwest Inspectors Institute, PO Box 186, Lansing, KS 66043 $75.00
- **NC State Building Code**, Volume VII-Residential One and Two Family Dwelling Code, NC Department of Insurance, 1202 Mail Service Center Raleigh, NC 27699-1202 (919) 661-5880
- Inspection Techniques, Kuczynski, A. & O’Malley, K., Inspection Training Associates, 1016 S. Tremont St., Oceanside, CA 92054 (888) 323-9235 †
- The Homebook, Michael P. Lennon, Homepro Systems, Inc., 2841 Hartland Rd., Suite 201, Falls Church, VA 22043 (703) 560-4663
- How To Inspect Homes and Commercial Buildings, Everett H. Rawlings, The Inspection Experts, 4722 NW Boca Raton Blvd., #C107, Boca Raton, FL 33431 (800) 226-6299
**Tips and Testers for Home Inspectors**, Larry Reavis, Homexam, 761 Harmony Orchard Rd., Front Royal, VA 22630 (800) 654-4511

**The User-Friendly Home**, Larry Reavis, Homexam Services and Products, HC-1, Box 34-A, Rt. 671, Front Royal, VA 22630-9304 (800) 654-4511

**The Complete Home Inspection Kit**, Ventolo, Jr., Longman Group, USA 1990


**Periodicals and Materials of General Interest**

*The ASHI® Reporter*, American Society of Home Inspectors, 932 Lee St., Suite 101, Des Plaines, IL 60016; (800) 743-2744

*Fine Homebuilding*, Tauton Press, PO Box 5506, Newtown, CT 06470-5506

*The Journal of Light Construction*, PO Box 686, Holmes, PA 19043

*The Old House Journal*, PO Box 50214, Boulder, CO 80321-0214

**Report Writing**


**Foundations and Structures**

*Layouts, Foundations, Framing*, Audel Carpenter's and Builder's Library No. 3, John E. Ball, Audel & Co., Div. of Howard Sams & Co., 4300 W. 62nd St., Indianapolis, IN 46268


*Structures, Or Why Things Don’t Fall Down*, J. E. Gordon, Da Capo Press (Plenum Publishers) Quality Paperback (QPS) (800) 321-0050


Roofing


Handbook of Accepted Roofing Knowledge (HARK), National Roofing Contractors Association, One O’Hare Centre, 6250 River Road, Rosemont, IL 60018 (312) 318-6772

The NRCA Roofing and Waterproofing Manual, National Roofing Contractors Association, One O’Hare Centre, 6250 River Road, Rosemont, IL 60018 (312) 318-6772


Fireplaces and Chimneys


All About Chimneys, John E. Traister, TAB Books, Inc., Blue Ridge Summit, PA 17214


Masonry


*Technical Notes on Brick Construction*, Brick Institute of America, 11490 Commerce Park Drive, Reston, VA 22091

Plumbing


Residential Plumbing Inspection, Michael Casey and Kevin O’Malley, ITA, 1016 South Tremont St., Oceanside, CA 92054

Basic Plumbing, Code Building Officials and Code Administrators International, Inc., 4051 West Flossmoor Road, Country Club Hills, IL 60477


The Water Heater Workbook, Larry and Suzanne Weingarten, Elemental Enterprises, PO Box 928, Monterey, CA 93942 (408) 394-7077


**Heating**

Advanced Energy Corp. training materials, 909 Capability Drive, Raleigh, NC (919) 832-2696.

*Fundamentals of Gas Appliance Venting and Ventilation*, American Gas Association

Bacharach Institute of Technical Training materials, 625 Alpha Drive, Pittsburg, PA (412) 963-2000.

*Warm Air Heating for Climate Control*, William B. Cooper, Raymond E. Lee & Raymond A. Quinlan, Prentice Hall


*Heat Pumps*, Patrick Porzio, Extended Warranties of NJ, 15 Oxford Road, North Caldwell, NJ 07006 (973) 403-0779

*Practical Heating, Ventilation, Air Conditioning and Refrigeration*, Henry Puzio & Jim Johnson, Delmar Publishers


**Principles of Home Inspection, Steam, Electric & Wall/Floor Heating**, Carson Dunlop & Associates-2003, Dearborn Home Inspection, 30 Wacker Dr., Chicago, IL 60606 [www.dearbornRE.com](http://www.dearbornRE.com)


**Electrical**


*Electrical Inspection - A Workbook for Home Inspectors*, Douglas Hansen, Inspection Training Associates, 1016 South Tremont St., Oceanside, CA 92054

*Electrical Inspection of Existing Dwellings*, Douglas Hansen, ITA, 1016 South Tremont St., Oceanside, CA 92054

**Modern Residential Wiring**, Holzman, Goodheart - Wilcox, Tinley Park, IL 1996

**National Electrical Code**, National Fire Protection Association, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101

*National Electrical Code Handbook*, National Fire Protection Association, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101

*Overcurrents and Undercurrents - All About GFCI’s*, Earl Roberts, Mystic Publications, 10 Mason’s Island Rd., PO Box 37, Mystic, CT 06355-0037

*IAEI One & Two- Family Dwelling Electrical Systems*, J. Philip Simmons, International Association of Electrical Inspectors, 901 Waterfall Way, Suite 602, Richardson, TX 75080-7702


**Air Conditioning**


**Interiors**

[Asbestos Handbook for Remodeling](http://www.nahbbookstore.org/), National Association of Home Builders, NAHB Bookstore


**Exteriors**

[The Consumer’s Stucco Handbook](http://www.stuccohandbook.com), John Bucholz, P.E., Plaster Information Center, 4960 Hamilton Ave., Suite 100, San Jose, CA 95130


**Building Codes**


**The North Carolina Home Inspector Licensure Board has these resources in its library.** You may examine materials at the Board office.