

MN Code and Energy Efficient Building



COURSE SYLLABUS

Course Description

Code: Students successfully completing this portion of the course will gain confidence in their ability to use and understand the current Minnesota Residential Code. It's important to recognize the fact that without a standard to meet, many buildings would simply be too dangerous and unsafe to occupy, or, too costly to maintain. The building codes, and the building officials that enforce them, are there to safeguard the health, safety, property, and public welfare of the residents of Minnesota.

Energy Efficient Building: Even as technological innovation creates new construction possibilities, incorporating energy-efficiency into building projects can not only provide a better quality of life, but also protect the environment. A comprehensive approach to resource and energy efficiency is the best method to achieve a resource and energy efficient building. This chapter will help builders identify important considerations and then apply those principles to a specific project.

Code I

***Learning Objectives:** 1) Understand where the code is enforced and how to use the 2007 Minnesota Residential Code Book and be able to recognize items unique to Minnesota. 2) Define the purpose of building codes and the value added through the process of building inspection. 3) Identify who is responsible for code enforcement, including the process of plan review through certificate of occupancy.

Introduction to the Minnesota Residential Code Book

1. Minnesota State Residential Code, Chapter 1309
2. Minnesota Code Format
3. Chapter Overviews
4. Permits and Zoning

Chapter 1300 Administration and Logic

1. Purpose, Application and Scope
2. Duties and Powers of the Building Official
3. Permits, Fees and Certificate of Occupancy
4. Applying the Logic of the Code Book

Minnesota Revisions and Definitions

1. Revisions of the IRC
2. Adoption of the IRC by Reference
3. Definitions

Assessment

Code II

****Learning Objectives:*** 1) Differentiate between residential structure classes recognize the difference between live load and dead load, and what “habitable spaces” means. 2) Describe some of the specific requirements for residential structures, e.g., doors, windows and garages.

Chapter 3 Planning I

1. Classification, Design Criteria
2. Light, Ventilation and Heating
3. Minimum Area, Ceiling Height, Sanitation, Glazing, Garages
4. Emergency Escape Openings

Chapter 3 Planning II

1. Means of Egress
2. Stairway Requirements and Guards
3. Smoke Alarms, Foam Plastic, and Flame Spread
4. Dwelling Unit Separation
5. Moisture and Protection Against Decay

Chapter 4 Foundations

1. General Requirements and Materials
2. Footings
3. Foundation Anchorage
4. Foundation and Retaining Walls
5. Waterproofing and Dampproofing
6. Columns and Under-floor Space

Assessment

Code III

***Learning Objectives:** 1) Identify limitations of floor joists, and limits when cutting and notching. 2) Understand limitations that apply to wood framing, unit masonry and ICF wall construction. 3) Be aware of ventilation requirements, interior and exterior finishes, fasteners, and water resistive barriers, weep screeds and flashings.

Chapters 5-6 Structure

1. Wood Floor Framing
2. Wood Wall Framing
3. Masonry Construction
4. ICF Construction
5. Exterior Windows and Glass Doors

Chapters 7-8-9 Wall Covering, Roofing and Exteriors

1. Wall Covering: Interior and Exterior
2. Wood Roof Framing
3. Roof Ventilation, Attic Access and Insulation Clearance
4. Roof Coverings, Reroofing

Assessment

Energy Efficient Building

***Learning Objectives:** 1) Have an appreciation for energy consumption and the need for healthy, "green" energy. 2) Understand the importance of building placement on the lot, "Brownfield" site clean-up methods and the need for soil erosion control and basic methods. 3) Have an understanding of material properties, recycling and finally, the process for LEED certification.

1. Environmental Concerns and Implications
2. Evaluating the Site and Remediation Strategies: Building orientation, erosion, water
3. "Green" power generation: solar, performance, varying sources
4. Photovoltaic, geothermal, recycling, air quality, LEED Rating System

Assessment

Final Exam

Course instructors will be available by email or telephone between 9am and 5pm Eastern Standard Time. They will assist you with questions regarding course content.

If you have any questions, please call us at 1-800-727-7104 or send an email to info@licensetobuild.com. Email responses will usually be returned promptly, but guaranteed within one business day.

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