

ARC 131 BUILDING CODES

COURSE DESCRIPTION:

Prerequisites: ARC 112

Corequisites: None

This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing residential and commercial projects. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

COURSE OBJECTIVES:

A student who successfully completes this course should be able to:

- a. Perform supervised preliminary code research.
- b. Understand the relationship of building codes to building design.

OUTLINE OF INSTRUCTION:

- I. General administration
 - A. Purpose
 - B. Scope
 - C. Authority
 - D. Entry
 - E. Liability
 - F. Permit
 - G. Plans
 - H. Inspection
 - I. Inspection card
 - J. Existing structures
 - K. Stop work orders
 - L. Contractor responsibilities
 - M. Portable toilets
- II. Building definitions
- III. Building planning
 - A. Design criteria
 - B. Location on lot
 - C. Light, ventilation and heating
 - D. Room sizes
 - E. Ceiling height
 - F. Sanitation
 - G. Toilet, bath and shower spaces
 - H. Glazing

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- I. Garages
 - J. Exits
 - K. Doors and hallways
 - L. Landings m ramps
 - M. Stairways
 - N. Handrails and guardrails
 - O. Foam plastic
 - P. Insulation
 - Q. Dwelling unit separation
 - R. Moisture vapor retardors
 - S. Protection against decay
 - T. Protection against termites
- IV. Foundations
- A. General
 - B. Materials
 - C. Footings
 - D. Foundation walls
 - E. Foundation drainage
 - F. Foundation waterproofing and dampproofing
 - G. Foundation insulation
 - H. Columns
 - I. Crawl space
- V. Floors
- A. Floor framing
 - B. Floor sheathing
 - C. Treated-wood floor (On Ground)
 - D. Concrete Floors (On Ground)
- VI. Wall construction
- A. Wall framing
 - B. Metal
 - C. General masonry construction
 - D. Unit masonry
 - E. Multiple wythe masonry
 - F. Grouted masonry
 - G. Windows
 - H. Sliding glass doors
 - I. Plywood and wood structural panels
 - J. Particleboard
- VII. Wall covering
- A. Interior covering
 - B. Exterior covering
- VIII. Roof-ceiling construction
- A. Roof framing
 - B. Roof sheathing
 - C. Ceiling finishes
 - D. Roof ventilation
 - E. Attic access

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- IX. Roof coverings
 - A. Deck preparation
 - B. Asphalt shingles
 - C. Built-up roofing
 - D. Wood shingles
 - E. Wood shakes
 - F. Reroofing

- X. Chimneys and fireplaces
 - A. Masonry chimney
 - B. Factory-built chimneys
 - C. Masonry fireplaces
 - D. Factory-built fireplaces
 - E. Factory-built fireplace stoves

- XI. Mechanical definitions

- XII. Vents

TEXTBOOKS AND MATERIALS:

North Carolina residential Code, 2002 Edition, NC. Department of Insurance

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.