

Mercer County Community College
Arts and Communication Division

ABT 104

CODES FOR CONSTRUCTION AND DESIGN

COURSE DESCRIPTION

Regulations for construction and/or design of residences and small buildings will be studied. Their applicability and intent subject to the interpretations imposed by the State of New Jersey will be included.

Text (s): **Reference Division Booklist**

Prerequisites: **ABT109 or equivalent**

Co-requisites:

Credits: 4

Lecture Hours: 4

Studio/Lab Hours: 0

Food and Drink are strictly prohibited in Classrooms as per Health and Safety Laws. Students are not permitted to bring in chemicals or cleaning fluids without the appropriate MSD Sheets.

Course Coordinator: John Santosuosso

Latest Review: Spring 2005

I. GENERAL OBJECTIVES

To serve the design professionals and other persons involved in the design review inspection and building of structures through knowledge of the regulatory construction codes.

The student will become familiar with:

1. The requirement of the State of New Jersey concerning the construction requirements of one and two family dwellings.
2. The Basic Building Code and its requirements for the design and/or construction in the State of NJ.

II. SPECIFIC OBJECTIVES

UNIT I - UNIFORM CONSTRUCTION CODE

Students should be able to:

- A. Describe the content and organization of the Uniform Construction Code regulations.
- B. Describe the content and organization of the building sub-code as to the sub-code's background, purpose, history, place in local government structure and the relationship of the sub-code to the construction code enforcement programs at other levels of government.
- C. Classify structures into class categories.

UNIT II - STRUCTURAL DESIGN AND ANALYSIS TECHNIQUES

Students should be able to apply structural design and analysis techniques necessary to check compliance with the code for wood-framed, light steel and wall bearing systems which characterize the majority of Class III structures, including foundation, wall, floor and roof framing systems detailed in CABO one and two family dwellings.

UNIT III - MATERIALS

Students should be able to:

- A. Identify basic materials.
- B. Describe basic material standards which have assembly type, quality or grade markings.
- C. Identify materials which have given standards for lumber, plywood, and steel.
- D. Describe code and enforcement requirements related to weather conditions and durability of installed construction materials.

UNIT IV - PLAN REVIEW

Students should be capable of performing an effective plan review for basic fire protection requirements including height and area limitations, means of egress, fire resistance ratings of structural elements, flame spread classifications of construction materials, and combustibility of materials. This plan review emphasizes the ability to read plans from a code enforcement standpoint rather than a design or construction standpoint.

UNIT V - INSPECTION TECHNIQUES

Students should be capable of evaluating the construction of a Class III building utilizing basic inspection tools and test methods with emphasis on proper methods of communicating and preparing reports utilizing proper code terminology and form.

III. METHOD OF INSTRUCTION

Lectures using the text as a guide will be the main mode of instruction. Examples of conformance and non-conformance will be used whenever available. Discussions will be directed to extract understanding the intent of the codes.

IV. GRADING/EVALUATION

Tests	65%
Final	25%
Professional	10%

Absences will adversely affect the grade. Make-up test for any test missed will ordinarily not be available.