

ARC 213 DESIGN PROJECT

COURSE DESCRIPTION:

Prerequisites: ARC 111, ARC 112, and ARC 114
Corequisites: None

This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents. Course Hours Per Week: Class, 2. Lab, 6. Semester Hours Credit, 4.

COURSE OBJECTIVES:

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

- a. Develop and draw light construction details (type 1 and 2 as defined in NC building code)
- b. Design a functional building using commercial construction techniques
- c. Perform preliminary code research under supervision
- d. Solve drafting and design problems for steel and/or concrete wood construction
- e. Understand the relationship of building codes as applied to commercial construction technology
- f. Size up major structural components as applied to commercial construction technology

OUTLINE OF INSTRUCTION:

- I. Brief Introduction to Building Codes, and Administrative Law for the project
 - A. Planning the building and construction documents
 - B. Research and details
 - C. Budget and building cost per square foot
 - D. Site and the building environment
 - E. Teamwork building skills
 - F. Weekly schedule update

- II. Floor Plan:
 - A. Symbols
 - B. Dimensioning
 - C. Layout

- III. Structural details of steel products:
 - A. Steel decking
 - B. Steel connections and joints
 - C. Steel Trusses
 - D. Steel "I" Joists
 - E. Steel and wind bracing

- IV. Wall Sections:
 - A. Symbols
 - B. Dimensioning
 - C. Layout

- V. Foundation Systems:
 - A. Symbols
 - B. Dimensioning
 - C. Layout

- VI. Exterior Elevations
 - A. Symbols
 - B. Layout

- VII. Roof Plan and Details

- VIII. Problem solving concepts
 - A. Methods
 - B. Documentation

- IX. Presentation concepts
 - A. Written
 - B. Verbal
 - C. Oral

- X. Scheduling concepts
 - A. Daily
 - B. Weekly
 - C. Graphs
 - D. CPM

REQUIRED TEXTBOOK AND MATERIALS:

To Be Announced

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.