

ARC 220 – Advanced Architectural CAD

COURSE DESCRIPTION:

Prerequisites: ARC-114 must be completed prior to taking this course

Corequisites: None

This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands. Course Hours per Week: Class, 1. Lab, 3. Semester Hours Credit, 2.

LEARNING OUTCOMES:

Upon completing requirements for this course, the student will be able to:

1. Set up the CAD environment for increased efficiency.
2. Import construction details of varying scales to a single sheet.
3. Create a complete set of construction drawings.

OUTLINE OF INSTRUCTION:

- I. Establishing the CAD environment
 - A. Selecting architectural units.
 - B. Determining and inputting limits.
 - C. Layer protocols.
 - D. Managing data.
- II. Establishing the architectural construction technology
 - A. Selecting architectural construction details.
 - B. Drawing a two-story wall section.
 - C. Drawing a single-run staircase in section.
 - D. Decks.
 - E. Layer assignments.
- III. Conceiving the Floor Plan (space planning)
 - A. Lower level.
 - B. Upper level.
 - C. Staircase location.
- IV. Drawing the Floor Plan(s)
 - A. Requirements and limitations.
 - B. Layer assignments.
 - C. Drawing sequence.
 - D. Dimensions and notes.

- V. Drawing the Elevations
 - A. Establishing vertical heights.
 - B. Drawing the front elevation.
 - C. Drawing the rear elevation.

- VI. Drawing Section Details
 - A. Transverse section.
 - B. Staircase details.
 - C. Foundation details.

- VII. Composing the plan package
 - A. Managing each sheetset.
 - B. Merging drawings of different scales.
 - C. Plotting and scanning options.

REQUIRED TEXTBOOK AND MATERIAL:

The textbook and other instructional material will be determined by the instructor.