

TIDEWATER COMMUNITY COLLEGE

Official Course Outline

Course Prefix/Number/Title: ARC 221 Architectural CAD Applications Software

Credit Hours: 3 **Lecture Hours:** 2 **Lab Hours:** 2 **Total Contact Hours:** 4

Pre-requisites: DRF 201 and ARC 121 **Co-requisite:** None

Course Description: Teaches the principles and techniques of architectural drawing practices through the use of architecture specific CAD software. Utilizes the commands and features of the software to generate drawings that emphasize architectural design and structural systems.

Course Objectives: Focuses on the use of Autodesk AutoCAD Architecture software to design and prepare construction documents for residential/light commercial projects. It is intended for designers, draftsmen, CADD technicians, architects and engineers who already have a working knowledge of basic AutoCAD and wish to leverage their skills into three dimensional building modeling and construction documentation.

Upon completion of this course, students should be able to:

- Create and modify a three dimensional building model
- Create and annotate plans, elevations, and sectional representations of the building model
- Identify the design interface and proficiently use tool palettes, content catalogues, the project browser and the properties palette
- Create and modify wall, window, door, stair, slab and roof objects
- Use of the project navigator to establish the levels and divisions of a model and to organize the various views and sheets required for project documentation
- Create constructs, elements, model views and sheet views to properly display the various representations of the model
- Annotate views to display dimensions and notations required for construction documentation
- Use the details palette to add the level of detail needed portray the intended methods of construction
- Create and organize drawing sheets to be plotted as a set of construction documents.

Course Content:

- User Interface, Style Manager and Display Manager
- System Settings and Project Navigator
- Massing, Areas and Spaces
- Design Development (Walls, Doors, Windows, Door and Window Assemblies, Openings, Slabs, Roofs, Stairs, Railings)
- Construction Documentation: (Sections, Elevations, Schedules, Annotation, Design Content, AEC Dimensions, Elevation Labels)
- Plotting and Publishing

Textbook: Elise Moss. Autodesk AutoCAD Architecture 2008 Fundamentals. SDC Publications, 2007. ISBN-13: 978-1585033584.