

COURSE OUTLINE

By: A. Tessitore, September, 2010

DEPARTMENT:	Computer-Aided Drafting/Design Technology
CURRICULUM:	CAD
COURSE TITLE:	CAD - Residential Architectural
COURSE NUMBER:	TDR 268
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	1 quarter
CREDIT HOURS:	4
LECTURE HOURS:	22
LAB HOURS:	44
CLASS SIZE:	18
PREREQUISITES:	TDR 123 / 133

COURSE DESCRIPTION:

This course explores the architectural/structural drafter's responsibility to convert architects', engineers', and designers' sketches and ideas into formal drawings using CAD software. Emphasis is placed on providing realistic drafting problems, relating to residential architecture. The student will progress through the same planning and decision making activities that are required in the workplace of a professional drafter. Consideration is given to scale, drawing size selection, view layout, detail placement and many other drafting and related organizational problems.

STUDENT LEARNING OUTCOMES ADDRESSED:

- 1) Computation – Apply basic math operations to construct architectural / structural drawings.

- 2) Critical thinking and Problem Solving – Identify problems and evaluate alternative solutions, and apply appropriate analytical methods to develop optional solutions.

STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

- 3) Technology – Demonstrate basic understanding of computer systems and use of AutoCAD software to create professional architectural/residential drawings.
- 4) Information Literacy – Access and use information from a variety of technical resources.
- 5) Personal Responsibility – Take pride and value in one’s own work, and manage personal time to meet required schedules.

GENERAL COURSE OBJECTIVES:

At the successful completion of the course the student will be able to:

- 1) Understand the design process and the functions of the drafter in the design sequence for residential and small commercial building construction.
- 2) Describe the various factors involved in drafting floor plans, foundation systems, building elevations, framing details and utility installations.
- 3) Utilize design criteria to create architectural plan sets of floor, electrical, plumbing, foundation, and other supporting drawings.
- 4) Prepare presentation drawings to convey basic design concepts to a design team, owner, or building official.

TOPICAL OUTLINE:

APPROX. HOURS

I.	An introduction to Architectural drafting	6
II.	Building Codes and interior design factors	4
III.	Floor plan symbols, dimensions & layout	8
IV.	Electrical, plumbing sheets	6
V.	Basic HVAC design concepts & layout	6
VI.	Roof plan components & layout	6
VII.	Introduction to Elevations	4
VIII.	Elevation layout and Drawing Techniques	8
IX.	Drawing framing plans & sections	6
X.	Foundation plan layout	4
XI.	Presentation drawings	8
	Total	<hr/> 66

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