SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Design & Drafting Technology Program
Revision Date: August 21, 2023

I. CATALOG DESCRIPTION

Course Number:	DDRT1338
Course Title:	Residential Design and Drafting
Prerequisite(s):	DDRT1170 and DDRT1230 and DDRT1400
Catalog Description:	The course covers the advanced study of residential architectural drafting and design. Students learn the essential spaces in a residence and explore a variety of layout options. Full color residential renderings are produced along with design drawings. Design drawings evolve into IRC code compliant construction documents.
Credit Hours:	3
Class Hours:	23
Lab Hours:	68
Total Contact Hours:	91

II. COURSE OBJECTIVES: *Course will:*

A. Discuss the latest trends in custom home design.
B. Discuss the variety of room layout options for a custom residence.
C. Demonstrate the process to create a color rendering of a custom residence.
D. Explain the elements of a complete set of construction documents for a custom residence.
E. Discuss the material specifications for a custom residence.
F. Illustrate the impact of the IRC on a custom residence.
G. Demonstrate the application of the most current design software used in the industry.
H. Identify notable architects that have contributed major works to the design community.
I. Develop a deeper understanding of the opportunities available to a graduate of the Design & Drafting Technology Program upon graduation.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. Student Learning Outcomes: *Student will be able to:*
- **1.** Design a new residence from an existing floor plan sketch to meet the needs of the average consumer.
- **2.** Generate a color rendering of a custom residence.
- **3.** Prepare a complete set of schematic plans using a schematic plan format template to guide the creation of construction documents.
- **4.** Generate a set of construction documents that are able to receive a building permit from the design drawings and schematic plans of a custom residence.
- **5.** Utilize the most current design software used in the industry.
- **6.** Edit an existing set of material specifications to match the conditions of the specific project.
- **7.** Apply the most commonly noted elements of the IRC to a custom residence to make it suitable for a building permit.
- **8.** Discuss the major works of notable architects.
- **9.** Examine the different career opportunities available upon graduation from the program.

B. General Education Learning Outcomes (GELOs)
- **1.** GELO #1: Oral Communication

Outcome 5: Utilize active and critical listening behaviors.

IV. CONTENT/TOPICAL OUTLINE

- **A.** Theory of Residential Design
  - **1.** Living Spaces
  - **2.** Sleeping Spaces
  - **3.** Service Areas
- **B.** Design Drawings
  - **1.** Design software
- **C.** Rendering
- **D.** Residential Home Styles
- **E.** Construction Documents
  - **1.** IRC code compliance
  - **2.** Building permit requirements
- **F.** Specifications

V. INSTRUCTIONAL MATERIALS

- **A.** Required Text(s):
  - **1.** Allen & Thallon, *Fundamentals of Residential Construction* (Refer to CID and/or instructor for current edition)
  - **2.** Thallon, *Graphic Guide to Frame Construction,* (Refer to CID and/or instructor for current edition)
  - **3.** *DeWalt Residential Construction Codes Complete Handbook* (Refer to CID and/or instructor for current edition)
- **B.** Other Resources:
  - **1.** Thallon, *Architectural Graphic Standards, Student Edition*, *Graphic Guide to Frame Construction* (Refer to CID and/or instructor for current edition)
  - **2.** Instructional Handouts

VI. METHODS OF PRESENTATION/INSTRUCTION

- **A.** Methods of presentation typically include a combination of the following:
  - **1.** Lecture
  - **2.** Demonstration
  - **3.** Classroom discussion
  - **4.** Instructional Handouts
  - **5.** Power Point Presentations
  - **6.** Videos
  - **7.** Field Trips

VII. METHODS OF EVALUATION

- **A.** Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
  - **1.** Attendance and participation
  - **2.** Daily assignments
  - **3.** Written exams and/or quizzes
  - **4.** Performance and observational assessment

VIII. SPECIFIC COURSE REQUIREMENTS

- **A.** Students must meet all of the following:
  - **1.** Achieve passing grade of 60% or higher, based on SCC grading scale.

2. Submit own work. Students turning in drawings or homework by someone other than themselves will receive a grade of 0% and will be referred to the Dean of Students for further disciplinary action.