

SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Design & Drafting Technology Program
Revision Date: August 22, 2022

I. CATALOG DESCRIPTION

Course Number: DDRT2150
Course Title: Structural Steel Design with SDS/2
Prerequisite(s): DDRT1110
Catalog Description: Use of SDS/2 software to teach design and detailing of structural steel in a 3-D environment.
Credit Hours: 2
Class Hours: 15
Lab Hours: 45
Total Contact Hours: 60

II. COURSE OBJECTIVES: *Course will:*

- A. Demonstrate SDS/2 software.
- B. Create a large commercial structure for a final project.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

- A. Student Learning Outcomes: *Student will be able to:*
 - 1. Set up and start projects.
 - 2. Create projects with columns, beams, sloped roofs, stairs, handrails, and modeled parts.
 - 3. Understand, create, and manage sheets and title blocks for a building project.
- B. General Education Learning Outcomes (GELOs)
 - 1. GELO #3: Critical Thinking & Problem Solving
Outcome 1: Collect, identify, interpret and analyze data.

IV. CONTENT/TOPICAL OUTLINE

- A. The Big Picture
- B. The Main Menu
- C. Setup Phase 1 (job options)
- D. Modeling Phase 1
- E. Modeling Tools
- F. Modeling Phase 2
- G. Connections
- H. Material Operations
- I. Setup Phase 2
- J. Drawing Editor
- K. Parametric Modeling

V. INSTRUCTIONAL MATERIALS

- A. Required Text(s): *Structural Steel w/SDS/2*
- B. Other Resources: SDS/2 Software

VI. METHODS OF PRESENTATION/INSTRUCTION

- A. Methods of presentation typically include a combination of the following:
 - 1. Lectures

2. Classroom demonstrations
3. Classroom discussions
4. Hands-on lab projects
5. Lab demonstrations
6. Lab assistance
7. Instructional handouts
8. Multi-Media presentations
9. Overhead projector
10. Video presentations
11. Smart board
12. PowerPoint presentations
13. Speaker(s)
14. Field Trips(s)

VII. METHODS OF EVALUATION

- A. Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
 1. Grading Criteria:
 - a. Completeness
 - b. Neatness
 - c. Accuracy
 - d. Drafting standards followed
 - e. According to instructions provided
 - f. Quality of work done in accordance with industry standards
 2. Evaluation will be based on the number of points earned from the total points possible.

VIII. SPECIFIC COURSE REQUIREMENTS

- A. Student must meet all of the following to receive a passing grade:
 1. Achieve a passing grade of "D" (60%) or higher, based on SCC grading scale.
 2. Submit own work. Students turning in homework, reports, field notes, or calculations by someone other than themselves will receive 0% and be referred to the Division Dean and Dean of Students for further disciplinary action. Consequences can include failing the course.
 3. Demonstrate attitude, skills, and character commensurate with industry standards.
 4. All program policies of the Computer Aided Design Drafting program will be strictly enforced.
 5. Intentional damage to college property will not be tolerated and may result in punitive action, such as being removed from the program.
 6. All cell phones will be turned off during class/lab time. If this becomes a problem, the instructor may consider the delinquent student absent.
- B. Program attendance policy: Students are required to attend all classes. Any student absent more than 12 class hours for a lab class or 6 hours for a lecture class will have their final course grade reduced one grade point. (Example: A reduced to a B)