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

I. CATALOG DESCRIPTION

Course Number:	DDRT2200
Course Title:	Geometric Dimensioning & Tolerancing
Prerequisite(s):	DDRT1110
Catalog Description:	Study of the language of geometric dimensioning and tolerancing using ASME Y14.5 standard. Application of the rules and symbols for G.D.T. (Required course for DDRT2210)
Credit Hours:	2
Class Hours:	30
Lab Hours:	0
Total Contact Hours:	30

II. COURSE OBJECTIVES: *Course will:*

A. Provide students with the information so they will be able to apply GDT to products.
B. Help students in the understanding of manufacturing processes.
C. Show students the relationship of engineering processes and manufacturing processes.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. Student Learning Outcomes: *Student will be able to:*
- **1.** Define the concepts of geometric dimensioning and tolerancing (GDT)
- **2.** Identify the symbols used in GDT
- **3.** Apply datum theory and geometric functions
- **4.** Identify the types of datum
- **5.** Create feature control frames
- **6.** Apply GDT concepts to engineering drawings

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. Introduction
B. Symbology
C. Dimensioning Requirements
D. Limits of Size
E. Form Tolerances
F. Datums
G. Orientation Tolerances
H. Profile Tolerances
I. Position Tolerances
J. Application and Calculation

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): Goodheart-Willcox, *GD&T Application and Interpretation* (Refer to CID and/or instructor for current edition)

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. Instructional handouts
5. Video presentations
6. Power Point presentations
7. Speaker(s)

VII. METHODS OF EVALUATION

A. Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:

1. Weekly Exercises (40%)
  a. Complete projects on time
2. Grading Criteria
  a. Completeness
  b. Neatness
  c. Drafting standards followed
  d. According to instructions provided
  e. Quality of work done in accordance with industry standards
3. Tests (40%)
4. Final Examination (20%)
5. 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. Attendance: Students are required to attend all classes. Any student absent more than 12 class hours for a lab or 5 hours for lecture class will have their final course grade reduced one grade point. (Example: A reduced to a B)