SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Precision Machining & Automation Technology Program
Revision Date: August 26, 2019
Syllabus Statements

I. CATALOG DESCRIPTION

Course Number:	MACH1250
Course Title:	Computer Aided Drafting (CAD)
Prerequisite(s):	None
Catalog Description:	Fundamentals of Computer Aided Drafting using menus, settings and drawing setup, draw and edit commands, Cartesian coordinate system, practice drawings, symbols, prototype drawings and plotting.
Credit Hours:	2.0
Class Hours:	23
Lab Hours:	23
Total Contact Hours:	46

II. COURSE OBJECTIVES: *Course will:*

A. Demonstrate the application of the basic CAD Draw commands.
B. Demonstrate the application of the basic CAD Edit and Modify commands.
C. Discuss dimensioning procedures and dimension variables.
D. Introduce drawing layers, templates, and plot settings.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. Student Learning Outcomes: *Student will be able to:*
- **1.** Generate 2D drawings using the basic draw commands.
- **2.** Edit drawings using edit and modify commands.
- **3.** Create a solid model.
- **4.** Create a drawing from a solid model.
- **5.** Create an assembly in 3D.
- **6.** Format dimension styles and annotate a CAD drawing.
- **7.** Publish a usable print for a production environment.

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 (*course outline may provide more detailed information)*

A. Settings
- **1.** Cartesian coordinates
- **2.** Limits

B. Drawing
- **1.** Lines
- **2.** Circles
- **3.** Arcs
- **4.** Polygons
- **5.** Rectangles

C. Editing/Modifying
- **1.** Snaps
- **2.** Trim

3. Copy
4. Chamfer/Fillet

D. Templates
1. Dimensioning
2. Layout
3. Model

E. Solids
1. Extrusions
2. Cuts
3. Holes

F. Prints
1. Templates
2. Dimensions

G. Assemblies

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): Handouts will be supplies by the instructor. No purchased book required.

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:
1. Lecture
2. Small and large group discussion
3. Video presentation
4. Demonstrations
5. Handouts
6. Observations
7. Assigned lab projects
8. Field trips
9. Hybrid

VII. METHODS OF EVALUATION (*course outline will provide more detailed information)*

A. Methods of evaluations, although determined by the individual instructor, traditionally includes a combination of the following:
1. Notebook (if required)
2. Quizzes
3. Tests
4. Lab grades
5. Class participation

VIII. SPECIFIC COURSE REQUIREMENTS

A. Completion of all tests, projects, assignments, and notebook (if required).

B. Program shop safety rules will be followed. Please see the course outline for any additional safety rules established by the instructor.