

CATALOG INFORMATION

Dept and Nbr: APTECH 56      Title: COMPUTER DRAFTING  
Full Title: Introduction to Computer-Aided Drafting  
Last Reviewed: 8/14/2023

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.00	Lecture Scheduled	2.00	8	Lecture Scheduled	16.00
Minimum	2.00	Lab Scheduled	3.00	4	Lab Scheduled	24.00
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	40.00
		Non-contact DHR	3.00		Non-contact DHR	24.00

Total Out of Class Hours: 32.00

Total Student Learning Hours: 96.00

Title 5 Category: AA Degree Applicable  
Grading:                Grade Only  
Repeatability:        05 - May Be Taken for a Total of 4 Units  
Also Listed As:  
Formerly:             ENGR 56

**Catalog Description:**  
Introduction to computer-aided drafting utilizing the AutoCAD software program. Course will teach the student how to use this Windows-based commercial software to execute professional quality drafting/design work. Particular attention will be given to the components of a CAD system, the software interface, drawing set-up, geometric construction & editing, orthographic projection, dimensioning, plotting, and an introduction to 3-dimensional drafting/design.

**Prerequisites/Corequisites:**  
Course Completion or Current Enrollment in APTECH 45 ( or APTECH 55 or IED 55)

**Recommended Preparation:**

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: Intro to computer-aided drafting utilizing the AutoCAD software program. Areas covered include: drawing set-up, geometric construction & editing, orthographic projection, dimensioning, plotting, and an introduction to 3-dimensional drafting/design. Course will teach students how to use this Windows-based commercial software to execute professional quality

work. (Grade Only)

Prerequisites/Corequisites: Course Completion or Current Enrollment in APTECH 45 ( or APTECH 55 or IED 55)

Recommended:

Limits on Enrollment:

Transfer Credit: CSU;UC.

Repeatability: May Be Taken for a Total of 4 Units

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:

<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
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<b>CSU Transfer:</b>	Transferable	Effective:	Fall 1988	Inactive:
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<b>UC Transfer:</b>	Transferable	Effective:	Fall 1999	Inactive:
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**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

## **COURSE CONTENT**

### **Outcomes and Objectives:**

The students will:

1. Define how a PC-CAD workstation is organized including types and functions of the workstation hardware.
2. Demonstrate how to access and use appropriate AutoCAD menus by:
  - a. Tool Bars
  - b. Pulldown menus
  - c. by keyboarding.
  - d. the mouse.
3. Illustrate how to use the following AutoCAD commands and settings by establishing or creating
  - a. units and sheet size
  - b. layers, linetypes and color.
  - c. precise geometric entities
  - d. dimensioning drawings.
  - e. setting variables
  - f. storing drawing elements.
  - g. saving drawings.

### **Topics and Scope:**

1. Introduction to the computer as a drafting/design tool with emphasis on hardware and software.
2. Using the AutoCAD software interface
3. Setting up a drawing and accessing drawing commands.

4. Editing the drawing.
5. Plotting and filing drawings.
6. Student/instructor created data base drawings.

### Assignment:

1. Reading and written assignments as assigned by instructor.
2. AUTOCAD exercises and drawings.

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.

Writing  
0 - 0%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Quizzes, DATA BASE DRAWINGS

Problem solving  
5 - 35%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances, Performance exams, DATA BASE DRAWINGS

Skill Demonstrations  
35 - 60%

**Exams:** All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, Completion, COMPUTER GENERATED DRAWINGS

Exams  
10 - 35%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

None

Other Category  
0 - 0%

### Representative Textbooks and Materials:

1. AutoCad 2000: A Problem Solving Approach  
Sham Tickoo, AutoDesk Press 1999
2. Using AutoCad 2000  
Ralph Grabowski, AutoDesk Press 1999