APTECH 57 Course Outline as of Fall 2000

CATALOG INFORMATION

Dept and Nbr: APTECH 57 Title: ADVANCED AUTOCAD
Full Title: Advanced AutoCAD
Last Reviewed: 1/25/2021

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	11	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	2.00		Non-contact DHR	35.00

Total Out of Class Hours: 70.00 Total Student Learning Hours: 192.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
Computer-aided drafting using the AutoCAD software program. Areas covered include: advanced layout, construction and editing techniques, advanced dimensioning practices, isometric drawing, 3D modeling and rendering, software customization and project-oriented architectural, civil and mechanical engineering applications.

Prerequisites/Corequisites:
Course Completion of APTE 46 (or APTECH 46 or APTECH 56 or ENGR 56 or ENGR 22)

Recommended Preparation:

Limits on Enrollment:

Schedule of Classes Information:
Description: Computer-aided drafting using the AutoCAD software program. Areas covered include: advanced layout,construction and editing techniques, advanced dimensioning practices, isometric drawing, 3D modeling and rendering, software customization, and project-oriented architectural, civil, and mechanical engineering applications. (Grade Only)
Prerequisites/Corequisites: Course Completion of APTE 46 (or APTECH 46 or APTECH 56 or

ENGR 56 or ENGR 22)
Recommended:
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**			Effective:	Inactive:
CSU GE:	**Transfer Area**			Effective:	Inactive:
IGETC:	**Transfer Area**			Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Spring 1991	Inactive:	
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
Upon completion of the course, the students will:
1. Define how the AutoCAD program is structured, including its adaptability to various construction/industrial situations.
2. Identify and use proper construction and positioning commands necessary for industry related layout work and geometric constructions.
3. Demonstrate proficiency using dimensioning variables within the program.
4. Demonstrate how to set-up and execute isometric drawings.
5. Demonstrate proficiency using appropriate set-up procedures and commands to construct 3-dimensional models and renderings
6. Customize the AutoCad interface by creating and editing menu files.
7. Produce a site plan, floor plan, 3D model and exterior elevations for a small structure and produce detailed parts and assembly drawings for a machine trades-oriented project.

Topics and Scope:

1. Layout work and geometric construction.
2. Dimensioning and tolerancing practices.
3. Isometric construction techniques.
4. 3-D modeling and rendering techniques.
5. Customization of the AutoCad interface.
6. Civil engineering/site work layout procedures.
7. Construction project:
   A. Architectural drawings for a small structure.

1. site plan
2. floor plan
3. 3-D model
4. exterior elevations

8. Mechanical engineering project:
   Machine trades working drawings:
   1. assemblies (3D construction)
   2. detailed parts (2D construction)

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 10 - 50%

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