DeAnza College

ECMS: Course Outline Creation & Management

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Degree Applicable
Effective Quarter: Fall 2010

I. Catalog Information

CDI 81A	**AutoCAD (Intermediate)**	**4 Unit(s)**
CDI 81B	AutoCAD (Intermediate)	4 Unit(s)
CDI 81C	AutoCAD (Intermediate)	4 Unit(s)
CDI 81D	AutoCAD (Intermediate)	4 Unit(s)
CDI 81E	AutoCAD (Intermediate)	4 Unit(s)
CDI 81F	AutoCAD (Intermediate)	4 Unit(s)
CDI 81G	AutoCAD (Intermediate)	4 Unit(s)
CDI 81H	AutoCAD (Intermediate)	4 Unit(s)

Requisites: Prerequisites: CAD and Digital Imaging 80 A-H.

Formerly:

Grading: Graded

Hours: Eight hours lecture-laboratory.

Description: Intermediate mechanical design using AutoCAD software. Emphasis is on the CAD design process and drawing production. Drawings will be produced in 2-D and 3-D.

II. Course Objectives

A. Apply AutoCAD's system requirements and terminology.

B. Identify and utilize ASME Y14 Standards in the completion of engineering drawings.

C. Create isometric drawing views.

D. Create and use symbol libraries in drawings

E. Dimension drawings using industry standards

F. Model components using 3D features.

G. Output scaled drawings with printers and plotters

III. Essential Student Materials

None

IV. Essential College Facilities

None

V. Expanded Description: Content and Form

A. Apply AutoCAD's system requirements and terminology.

1. Overview

2. Terminology

3. Pull-down menus
4. Writing custom menus and script files

B. Identify and utilize ASME Y14 Standards in the completion of engineering drawings.

1. The design process
2. User coordinate system (UCS)
3. ANSI Y14 Standards

C. Create isometric drawing views.

1. Isoplane
2. Ellipse
3. Dimensioning

D. Create and use symbol libraries in drawings

1. Blocks
2. Insert

E. Dimension drawings using industry standards

1. Semiautomatic dimensioning and tolerancing and ASME Y14
2. Variables

F. Model components using 3D features.

1. Introduction to 3-D
2. Viewports
3. Wireframe and 3D models

G. Output scaled drawings with printers and plotters

1. How and what to plot
2. Plot scaling
3. Pen and printer plotting

VI. Assignments

A. Lab exercises

B. Take-home worksheets

C. Reading from text and reference materials

VII. Methods of Instruction

Lecture and visual aids
Discussion of assigned reading
Discussion and problem solving performed in class
Homework and extended projects
Laboratory experience which involve students in formal exercises

VIII. Methods of Evaluating Objectives

A. Completion of lab assignments

B. Complex and multi-faceted design projects

C. Comprehensive final examination

IX. Texts and Supporting References

A. Examples of Primary Texts and References

1. Tickoo, Sham; "AutoCAD 2010: A Problem Solving Approach"; ITP

B. Examples of Supporting Texts and References

1. None

ECMS v6.5