SEP 1995

Grande Prairie Regional College

Department of Science

EG 2080 Computer Aided Design

3.0(2-1-1) UT(3) Fall 1995
U of A Equivalent - Engg 208
Course Information

Calendar Description: Introduction to microcomputers and microcomputer-aided design for non-engineering students. Introduction to multi-view drawing for a variety of applications. MS-DOS commands for the beginner. Computer-aided drawing using AutoCAD on IBM compatible microcomputers. This course is not open to students registered in Engineering or Science.

Instructor	Dr. Jaime P. Santiago J209, 539-2865
Lecture	MW 11:00 - 11:50 a.m.
Seminar	F 11:00 - 11:50 a.m.
Laboratory	TBA
Textbook	Technical Sketching for Engineers, Technologists and Technicians by Dale H. Besterfield and Robert E. O'Hagan Prentice-Hall
Laboratory Manual	The AutoDesk Collection Student Manual by Shawna D. Lockhart Addison-Wesley

Marks Distribution

AutoCAD Assignments	15%
Lecture Midterm Exam	12.5%
AutoCAD Midterm Exam	12.5%
Lecture Final Exam	30%
Project	30%

Lectures

Lectures will cover the theory of technical drawings, technical sketching, the design process and the role of CAD in the process of design. There will also be lectures on DOS, AutoCAD, Windows, WORD, EXCEL, and AutoLISP.

Seminars

Through seminars, the instructor will introduce the important concepts and commands in AutoCAD and how they are used to create technical drawings.

Laboratory

In the lab the student will practice what was learned in the seminars. The student will also learn, with the instructors guidance, more detailed aspects of the software. The lab will serve as the jumping off point of the student for his/her assignment work.

Project

Each student will be required to submit at the end of the semester an approved CAD project featuring 2-D or 3-D drawings in an engineering or non-engineering area. A project proposal has to be submitted to the instructor for approval before the midterm exam week. More details will be provided later.

Materials

3.5" HD floppy disks
drafting scales (triangular metric, engineering, architect)*
drafting pencils (F and 2H) or mechanical pencils with proper lead hardness
eraser (white plastic)

EG 2080 Detailed Course Outline

Week	Lecture Topic	AutoCAD Seminar	AutoCAD Lab
1	Course Introduction; The design process; lettering and sketching	Introduction to MS-DOS AutoCAD Basics	No assignmen due
2	Scales (engineer, architect, metric)	Tutorial 1 - Introduction to AutoCAD Tutorial 2 - Basic Construction Techniques	1.1, 1.3, 1.5 2.1, 2.6
3	Oblique and Isometric Pictorials	continue Tutorial 2 Tutorial 3 - Geometric Constructions	3.1, 3.4, 3.6, 3.8
4	Orthographic Projection	Tutorial 4 - Introduction to Orthographic Views and Projection Theory Tutorial 5 - More Practice in Drawing Orthographic Views	4.1, 4.3, 4.7 5.2, 5.7
5	Basic Dimensioning	Tutorial 6 - Prototype Drawings and More Orthographic Views Tutorial 7 - Basic Dimensioning	6.2, 6.5 7.2, 7.5, 7.7
6	Perspectives	Tutorial 8 - Introduction to Solid Modeling Tutorial 9 - Changing and Plotting Solid Models	8.1, 8.6 9.3, 9.7
7	**Midterm Exam (2 hours)**	**AutoCAD Midterm Exam**	**AutoCAD Midterm Exam**
8	Sections	Tutorial 10 - Creating Section Views Using 2D and Solid Modeling Tutorial 11 - Pictorial Drawings Using 2D and 3D Methods	10.6, 10.8 11.2, 11.4
9	Auxiliary Views	Tutorial 12 - Creating Auxiliary Views with 2D and AME Methods Tutorial 13 - Advanced Dimensioning	12.1, 12.6 13.4, 13.5
10	MSDOS Edit and Windows Notepad	Tutorial 14 - Working Drawings Tutorial 15 - Creating Assembly Drawings from Solid Models	15.1
11	Customizing AutoCAD	Slide Libraries, AutoCAD Macros, Screen and Icon Menus	No assignment due Work on project
12	AutoLISP	Slide Shows, LISP	No assingment due Work on project
13	MS Word and MS Excel	Copy, cut, paste, link between MS Windows applications	No assignment due Work on project
14	Project Work Presentations		