Grande Prairie Regional College
Department of Science and Technology

EG 2090 Intermediate Computer Aided Design

Fall, 2003
3(2-0-2)UT
U of A Equivalent – Eng g 209

Course Outline

This course provides an introduction to microcomputers and microcomputer-aided drafting and design, with emphasis on advanced applications. Introduction to technical sketching for a variety of applications. Using AutoCAD on Windows NT workstations will be covered.

Note: This course cannot be taken for credit if you are registered in Engineering or Science.

Instructor	Jaime P. Santiago J209 539-2865 jsantiago@gprc.ab.ca
Lecture	W 6:30 – 8:30 p.m. J101 Lectures include a freehand sketching approach to technical graphics and design and demonstration of AutoCAD features. You are expected to become proficient in technical sketching and to apply what you learn to your computer-aided design project.
Laboratory	R 6:30 – 8:30 p.m. J101 Students work on assignments with the instructor available for individual assistance and troubleshooting. In order to complete the assignments you will have to spend several hours each week in addition to the scheduled class/lab time.
Textbook	Applying AutoCAD 2000, A Step-By-Step Approach by Terry T. Wohlers Glencoe McGraw-Hill Freehand Sketching for CAD by G. S. Hoye University of Alberta
Assignments	Due at the end of the class on Thursdays unless otherwise specified. There is a 20% per day penalty for late assignments.
Marks Distribution	Term Work 20% Midterm Exam 20% Project 30% Final Exam 30%

EG 2090 - Lecture Topics
Fall Session, 2003

Date	Sketching Topics	Date	AutoCAD Topics
September 3	Course Introduction, Windows NT Login, File Management, FTP, Web browser, email; AutoCAD Chapters 1 and 2	September 4	Chapters 3, 4, 6, 11 and 23(basic printing)
September 10	Introduction to Design	September 11	Chapters 5, 7, 8, 9, 10, 11
September 17	Orthographic Projection	September 18	Chapters 12, 13, 14, 15, 16
September 24	Pictorial Sketching	September 25	Chapters 17, 18, 19, 20
October 1	Sectional Views	October 2	Chapters 21, 22, 23, 24, 29
October 8	Dimensioning Download dimensioning handout	October 9	Chapters 25, 26, 27, 28.
October 15	Scales	October 16	**Midterm Exam**
October 22	Perspective Sketching	October 23	Chapters 30, 31, 32, 33
October 29	Work on Project	October 30	Chapters 36, 37, 38
November 5	Work on Project	November 6	Chapters 39, 40, 41, 42
November 12	Work on Project	November 13	Chapters 44, 45, 46, 47
November 19	Work on Project	November 20	Chapters 48, 49, 50
November 26	Work on Project	November 27	Work on Project
December 3	Project Presentations	December 4	Project Presentations

EG 2080 Assignments
Winter Session, 2003

All assignment drawing files must be uploaded to the FTP server. A printout with your name, problem number and filename must also be handed in to the instructor. No assignment will be marked unless both electronic file and plots are submitted.

Date Due	Problems	Filenames
September 11	*Freehand Sketching for CAD* Exercise 2.1 – Sketching Basics *Freehand Sketching for CAD* Exercise 2.3 – Student Profile Page 32, No. 4, Fig. 3-7 Page 47, No. 2, Fig. 4-12 ENGINE.DWG after completing Chapter 4 GASKET.DWG after completing Chapter 6 Page 78, No. 3, Fig. 6-11 Page 157, No. 5, Fig. 11-9D	prb3-3.dwg prb4-12.dwg engine.dwg gasket.dwg prb6-11.dwg prb11-9d.dwg
September 18	BIKE.DWG after completing Chapter 9 Page 121, No. 1, Fig. 9-9 Page 136, No. 5 and 6, Fig. 10-9 (Note: Finishing No. 6 before capturing text window output into Notepad. SNAP.DWG after completing Chapter 11	bike.dwg prb9-9.dwg prb10-9.dwg and prb10-9.txt snap.dwg

September 25	Page 172, No. 3, Figs. 12-7A and 12-7B Page 182, No. 5 and 6, Fig. 13-6 Page 200, No. 3, Fig. 14-7 and Page 201, No. 6, Fig. 14-10 GASKET.DWG and MULTI.DWG after completing Chapter 15 Page 239, No. 8, Fig. 16-18 and Page 241, No. 11, Fig. 16-22 *Freehand Sketching for CAD* Exercise 4.2 – 3, 4, 8 *Freehand Sketching for CAD* Exercise 4.3 – 2, 4, 6	prb12-7.dwg prb13-6.dwg prb14-7and10.dwg gasket.dwg multi.dwg prb16-18and22.dwg
October 2	*Freehand Sketching for CAD* Exercise 4.4 – 4, 9, 10 Page 254, No. 2, Fig. 17-8 Sketch the floor plan of your kitchen or the kitchen you wish to have. Make an AutoCAD drawing of your sketch. Make a FULLSIZE printout of TITLE.DWG after completing Chapter 18 Page 293, No. 2, Fig. 20-9	prb17-8.dwg mykitchen.dwg title.dwg prb20-9.dwg
October 9	TMP1.DWG after completing Chapter 21. TMP1.DWT after completing Chapter 22. STAIRD.DWG after completing Chapter 23. Use a standard scale for the printout. Indicate the scale used in the drawing. Page 447, No. 8, Fig. 29-9 Download flplan.dwg.	tmp1.dwg tmp1.dwt staird.dwg prb29-9.txt
October 23	*Freehand Sketching for CAD* – Sketch an isometric pictorial of the object shown in Exercise 4.3, #8. Sketch an oblique pictorial of your microwave oven. BASE.DWG after completing Chapter 25 Page 394, No. 2, Fig. 26-3 Page 434, No. 3, Fig. 28-15	base.dwg prb26-3.dwg prb28-15.dwg
October 30	Page 471, No. 2, Fig. 31-8 WORKSHOP.DWG after completing Chapter 32. LIB1.DWG after completing Chapter 33.	prb31-8.dwg workshop.dwg lib1.dwg
November 6	WORKSHOP.DWG after completing Chapter 32 3D.DWG after completing Chapter 36 3D2.DWG after completing Chapter 37 3D3.DWG after completing Chapter 38	workshop.dwg 3d.dwg 3d2.dwg 3d3.dwg
November 13	Page 575, No. 1-4, Fig. 39-5 to 39-8. I-BEAM.DWG and CONTOUR.DWG after completing Chapter 40 EDIT3D.DWG after completing Chapter 41	prb39-5to8.dwg i-beam.dwg and contour.dwg edit3d.dwg
November 20	REGION2.DWG after completing Chapter 44 SHAFT.DWG after completing Chapter 46 COMPOS.DWG after completing Chapter 47	region2.dwg shaft.dwg compos.dwg
November 27	TABLE.DWG after completing Chapter 48 PULLEY.DWG after completing Chapter 49 PULLEY2.DWG after completing Chapter 50	table.dwg pulley.dwg pulley2.dwg

Grades

Letter Grade	*4-Point Equivalent*	*Designation*
A+	4.0	Excellent
A	4.0	
A-	3.7	First Class Standing
B+	3.3	
B	3.0	Good
B-	2.7	
C+	2.3	Satisfactory
C	2.0	
C-	1.7	
D+	1.3	Minimal Pass
D	1.0	
F	0.0	Fail