Grande Prairie Regional College

Department of Science

EG 2100 Engineering Graphics (2-1-3) UT(4.0)Winter

U of A Equivalent - Engg 210

Course Outline

Instructor:	Dr. Jaime P. Santiago J209 539-2865
Lecture:	MF 11:00 - 11:50 a.m.
Seminar:	W 11:00 - 11:50 a.m.
Laboratory:	R or F 3:00 - 5:50 p.m.

Textbook:	**Fundamentals of Engineering Drawing, 10th Edition** by Warren J. Luzadder and Jon M. Duff
Workbooks:	**Problems in Engineering Drawing for Design and Production, 10th Edition** by Warren J. Luzadder, Jon M. Duff and Larry D. Goss
	Applying AUTOCAD **A Step-By-Step Approach for AUTOCAD Release 11** by Terry T. Wohlers

Marks Distribution:

Mechanical Drawing Lab Exercises	20%
Midterm Exam (Mechanical Drawing)	14%
Midterm Exam (AutoCAD)	6%
Final Exam (Mechanical Drawing)	35%
AutoCAD Quizzes	5%
AutoCAD Assignments	5%
AutoCAD Practical Exam	5%
AutoCAD Project	10%

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Essential Equipment:

2 Mechanical drafting pencils (0.3 mm and 0.5 mm)
Pencil lead refills
    0.3 mm - 2H and 4H
    0.5 mm - F(or HB) and 2H
    Or: Drawing Pencils (F, 2H, 4H) and pencil sharpener
Eraser (e.g., MARS 526 50 Vinyl eraser)
2 Triangular scales
    Engineers scale (decimal inch)
    Metric scale (may be fan type)
45° triangle (6" or 8")
30° – 60° triangle (8")
Protractor
Compass
Masking Tape
3.5" HD floppy diskettes (1.44 MB)

Optional Equipment:

Erasing Shield
Divider
Ames Lettering Guide
Dusting Brush

Textbook Reading: Fundamentals of Engineering Drawing (Luzadder)

Subject	Chapter	Sections
Introduction	1	All
	2	2.1 - 2.16
Conventional Lineweights and Symbols, Parallel, perpendicular and inclined lines	2	2.17 - 2.23
Scales	2	2.24 - 2.25
Technical Lettering	2	2.34 - 2.42
Multiview Representation	4	4.1 - 4.6
	5	All
Multiview Sketching	6	All
Isometric and Oblique Pictorials	11	11.1 - 11.22
Engineering Geometry	3	3.1 - 3.40
Sectional Views	7	All
Auxiliary Views	8	All
Descriptive Geometry	9	9.1 - 9.30
Dimensioning and Limits	13	13.1 - 13.25
Developments and Intersections	10	All
Fastening and Connecting Methods	14	14.1 - 14.35
Working Drawings	16	16.1 - 16.28
Graphic Methods	19	19.1 - 19.20
Design Process	12	12.1 - 12.28

Mechanical Drawing Laboratory - Problems in Engineering Drawing, 10th Ed.

Week	Date	Exercise No.	Subject
1	January 7/8		Introduction to Mechanical Drawing and Computer Lab Introduction DOS and AutoCAD
2	Jan. 14/15	3 (Parts 1 & 3) 4 (Parts 1 & 3) 6 (1 & 2) 7 (1 & 2)	Lettering (Inclined) Lettering (Vertical) Metric Scale Decimal Inch Scale
3	Jan. 21/22	15 and 17	Multiview sketching
4	Jan. 28/29	20 (Parts 1,2 and 3) 21 (Parts 1,2 and 3)	3-view orthographic with missing line 3-view orthographic with missing view
5	Feb. 4/5	10	Geometric Construction
6	Feb. 11/12	31, 33 and 34 (Section A-A only)	Sectional Views
7	**Feb. 18**		**Midterm Exam**
8	**Feb. 22-26**		**Winter Break**
9	March 4/5	27, 29	Auxiliary Views
10	March 11/12	67,68	Descriptive Geometry
11	March 18/19	57 58	Oblique Pictorial Isometric Pictorial
12	March 25/26	35, 36	Dimensioning
13	April 1/2	62 65	Development Intersection
14	**April 8/15/16**	Handout	Working Drawing (to be done on AutoCAD). This is the **AutoCAD practical exam.**

AutoCAD Assignments

Week	Units	Due Date	Problems
1			
2	1-3	January 13	2-3, 2-8, 3-3
3	4 - 9	January 20	6-1(draw and submit as a dwg file) 7-2, 8-3
4	10 - 13	January 27	11-3, 11-4, 12-2, 13-1
5	14 -18	February 3	14-1, 16-1, 17-1
6	19 - 23	February 10	19-3 (note that 19-1 has to be done before 19-3), 20-2, 23-1 (draw object in layer OBJ and dimensions in layer DIM)
7		**Feb. 18**	**Midterm Exam**
8		**Feb. 22-26**	**Winter Break**
9	24 - 27	March 3	24-1, 25-5, 26-2 (dimensions to be given in class), 27-1
10	28 - 32	March 10	29-1, 30-1 (ignore instructions starting with Attribute extraction on p. 246. Use bill of materials program provided by instructor.), 31-3
11	33 - 37	March 17	33-5, 34-1, 35-1
12	38 - 42	March 24	38-4, 39-1, 40-1, Handout
13	43 - 45	March 31	Handouts
14	46 - 47	April 7	46-1

Units 48, 49, 57 and 58 will be discussed in seminars after midterm exams. These are crucial to the completion of your AutoCAD project. Details on project to be provided later.