



BEGINNER'S GUIDE TO ENGINEERING DRAWING

Contents

Chapter-1: Introduction		
1.1	How much do we know?	1
1.2	How do we communicate?	1
1.3	Engineering Drawing is a way of communication	2
1.4	Main Drawing Equipments	2
1.5	Make practice with the Drawing equipments	3
1.6	Lettering	6
1.7	Art Paper Drawing	7
Chapter-2: Review of Geometry		
2.1	Geometry:	9
2.2	Two Dimensional Geometric Constructions	10
2.3	A Brief History of Measurement	17
2.4	Coordinate System:	18
Chapter-3: Classical Viewing		
3.1	Theories of vision	21
3.2	Drafting	21
3.3	Descriptive geometry	21
3.4	Projection method	22
3.5	Pictorials	22
3.6	Classical Viewing	23
3.7	Types of Axonometrics	26
3.8	Isometrics	26
3.9	Isometrics Projection vs. Sketch	27
3.10	Locating Features	27
3.11	Circles in Isometric	28
3.12	Oblique Pictorials	28
3.13	Unnatural Appearance of Oblique Drawing	29
3.14	Perspective Drawings	29
3.15	One Point Perspective	29
3.16	Examples of types of Perspectives	30
3.17	Drilling more on isometric views	30
3.18	Isometric Projection-Simple Exercise	31
3.19	Orthographic Views	32

3.20	First Angle and Third Angle Orthographic Projection	33
3.21	Simple example with a cylinder	34
3.22	Simple example with a cone	34
3.23	Exercise with Prism	35
3.24	More on multiple views and projections	35
Chapter-4: Dimensioning, Line Types and Other Views		
4.1	Dimensioning	37
4.2	Types of Dimensioning	37
4.3	Dimensioning Circles	39
4.4	Dimensioning Holes	40
4.5	Dimensioning Radii	40
4.6	Arrowhead	41
4.7	Tolerance	41
4.8	More on Dimension	41
4.9	Dimension Line	42
4.10	Drawing Symbols	43
4.11	Sectional Views	44
4.12	Which Sectional Views is correct?	44
4.13	Have you found it?	45
4.14	Various Line Types	48
4.15	Conventional breaks	49
4.16	More on Line Types	49
4.17	Exploded-view	50
Chapter-5: Development of solids and Others		
5.1	Development of Solids	51
5.2	Drafting practice - Standards	54
5.3	CAD, CADD, CADM, CAE	54
Chapter-6: Lessons in AutoCAD		
6.0	Some Lessons in AutoCAD	57
Chapter-7: Sample Questions and Exercises		
7.1	Some sample questions to practice	67
7.2	Exercises on generating Orthographic Views from Isometric Views	69
7.3	Isometric Grid Work Sheet	70
References		
		71