100908/ME900C Engineering Graphics

Course Contents and Course Plan

No	Topic	No. of Lectures
1	**Module 1 (12 hours)**	
1.1	Introduction to graphics, types of lines, Dimensioning	1
1.2	Concept of principle planes of projection, different quadrants, locating points on different quadrants	2
1.3	Projection of lines, inclined to one plane. Lines inclined to both planes.	2
1.4	Line rotation method of solving, problems on line rotation method	4
1.5	Trapezoidal method of solving problems on lines, Problems on lines using trapezoidal method	3
2	**Module 2 (10 hours)**	
2.1	Introduction of different solids, Simple position plan and elevation of solids	2
2.2	Problems on views of solids inclined to one plane	2
2.3	Problems on views of solids inclined to both planes	2
2.4	Practice problems on solids inclined to both planes	4
3	**Module 3 (10 hours)**	
3.1	Introduction to section planes. AIP and AVP. Principle of locating cutting points and finding true shape	1
3.2	Problems on sections of different solids	3
3.3	Problems when the true shape is given	2
3.4	Principle of development of solids & sectioned solids and its problems	4
4	**Module 4 (10 hours)**	
4.1	Principle of Isometric View and Projection, Isometric Scale. Problems on simple solids	2
4.2	Isometric problems on Frustum of solids, Sphere and Hemisphere	4
4.3	Problems on combination of different solids	4

5	**Module 5 (6 hours)**	
5.1	Introduction to perspective projection, different planes, station point etc. Perspective problems on pyramids	2
5.2	Perspective problems on prisms	2
5.3	Practice on conversion of pictorial views into orthographic views	2
	SECTION B *(To be conducted in CAD lab)*	
1	Introduction to CAD and software. Familiarizing features of 2D software. Practice on making 2D drawings	2
2	Practice session on 2D drafting	2
3	Introduction to solid modelling and software	2
4	Practice session on 3D modelling	2