

Subject: Engineering Drawing and Graphic

ME-124 1 ST Semester	Subject: Engineering Drawing and Graphics	1CH	
		Theory+Lab (0+1)	
Pre-req.	Nil	Category	Foundation Course
Course Contents			
1. Introduction to engineering, drawing and graphics · Use of drawing instruments and equipment, · Basic drafting techniques and standards. . Geometrical curves including plane curves; cycloid. Hypocycloid and involute. 2. Projection fundamentals Projection theory, . Orthographic projections, projection of points and lines, Dimensioning and tolerance, engineering geometry, Sectioning, orthographic reading and writing, engineering curves, Development of surfaces, fastening methods and connectors, 3. Drawing and Graphics Applications Concept of working drawing of component parts of machines and engines. Introduction to computer aided drawing software. Computer-aided drawing. Production engineering drawing, Intersections at various positions of geometrical bodies such as prisms. pyramids, cylinders and cones: development of surfaces of prisms, pyramids, cylinders and cones. Freehand sketching of machine and engine parts, 4. Locking Arrangements Foundation bolts; Stuffing box; Shaft couplings. Footstep bearing: Pulleys; engine connecting rod. . Description, dimensions and specifications. - Limit dimensioning and geometric tolerance. . Limits; fits and tolerances. Conventional symbols. Sectioning of machine and engine components: Isometric views with particular reference to piping and ducting. Use of drawing instruments and equipment, Basic drafting techniques and standards. Geometrical curves including plane curves; cycloid. Hypocycloid and involute.			

4-8	2. Projection fundamentals Projection theory, Orthographic projections, projection of points and lines, Dimensioning and tolerance, engineering geometry, Sectioning, orthographic reading and writing, engineering curves, Development of surfaces, fastening method and connectors,
9	MID TERM EXAM
10-12	3. Drawing and Graphics Applications Concept of working drawing of component parts of machines and engines. Introduction to computer aided drawing software. Computer-aided drawing. Production engineering drawing, Intersections at various positions of geometrical bodies such as prisms. pyramids, cylinders and cones: development of surfaces of prisms, pyramids, cylinders and cones. Freehand sketching of machine and engine parts,
13-16	4. Locking Arrangements Foundation bolts; Stuffing box; Shaft couplings. Footstep bearing: Pulleys; engine connecting rod. . Description, dimensions and specifications. - Limit dimensioning and geometric tolerance. . Limits; fits and tolerances. Conventional symbols. Sectioning of machine and engine components: Isometric views with particular reference to piping and ducting.
17	Revision
18	End Semester Exams
TEXT AND REFERENCE BOOKS: • Parkinson, A. C. "A First Year Engineering Drawing" 1958, Sir Isaac Pitman & Sons. • Engineering Drawing and Graphic Technology 14th Edition by T.E.French,C.J.Vierk and R.J.Foster • Engineering Drawing (53rd Edition, 2014) by N.D. Bhatt, Charotar Publishing House Pvt.Ltd. • Engineering Drawing and Graphic Technology (14th Edition,1993) by Thomas E. French, Charles Vierck & Robert Foster, McGraw-Hill Publishing Company	

