

LESSON PLAN

Computer Engg. Department

Session 2024-2025(2nd Sem)

Subject: Engineering Graphics

Duration:15Weeks

Teaching Load: 6 Hours practical/week

Week	Day Lecture	Topic
1	1	UNIT-I Introduction to Engineering Drawing and Graphics: Introduction to Engineering Drawing and Graphics, Symbols and conventions-Conventions of Engineering Materials
	2	Sectional Breaks and Conventional lines,Civil Engineering Sanitary fitting symbols, Electrical fitting symbols for domestic interior installations.
2	1	Geometrical construction -geometrical figures such as triangles, rectangles, circles, ellipses and curves ,hexagons, pentagons bisecting a line and arc,division of line and circle with the help of drawing instruments.
	2	Technical Lettering of Alphabet and Numerals: Definition and classification of Lettering ,Freehand(ofheightof5,8,12mm)and instrumental lettering(of height 20 to 35 mm) : upper case and lower case, single and double stroke
3	1	Vertical and inclined ()at75degree to horizontal and with Suitable height to width ratio 7:4.
	2	Dimensioning: Necessity of dimensioning, method and principles of dimensioning (mainly theoretical instructions).
4	1	Dimensioning of overall sizes,circles,threaded holes,chamfered surfaces,angles, Tapered surfaces,
	2	Holes, equallyspaced on P.C.D.,countersunk holes,counter bored holes, cylindrical parts, narrow spaces and gaps, radii, curves and arches.
5	1	Scales:Scales —Needs and importance(theoretical instructions),Type of scales, Definition of Representative Fraction(R.F.)and LengthofScale.
	2	To draw/construct plain and diagonal scales.
6	1	1 st sessional
	2	1 st sessional
7	1	UNIT II Orthographic Projections: Theory of orthographic projections (Elaborate theoretical instructions).Three views of orthographic projections of different objects of given pictorial view of a block in 1st and 3rd angle.
	2	Projection of Points in different quadrant,Projection of Straight Line(1 stangle), Line parallel to both the planes
8	1	Line perpendicular to anyone of the reference plane and parallel to others, Line inclined to any one of the references and parallel to another plane.

	2	Projection of Plane – Different lamina like square rectangular, triangular, circle and Hexagonal pentagon.Trace of planes(HTand VT). Identification of surfaces.
9	1	Sectioning: Importance and salient features,Drawing of fullsection,halfsection, Partial or brokenout sections,Off setsections,revolved sections and removed sections (theoretical only).
	2	Orthographic sectional views of different objects.
10	1	2 nd sessional
	2	2 nd sessional
11	1	UNIT III Introduction of projection of right solids such as prism & pyramid (square, Pentagon, Hexagonal) cube, cone & cylinder (Axes perpendicular to H.P and parallel to V.P.)Introduction of sections of right solids –Section planes, Sections of Hexagonal prism, pentagon pyramid, cylinder and cone (Section plane parallel to anyone reference planes and perpendicular to V.P. and inclined to H.P.)
	2	Development of Surfaces–Development of lateral surfaces of right solids like cone, cylinder, pentagonal prism, pyramid and hexagonal pyramid (Simple problems)
12	1	UNIT IV:IsometricViews Fundamentals of isometric projections and isometric scale. Isometric views of different laminas like circle, pentagon and hexagon.
	2	Isometricviewsofdifferentregularsolidsslikecylinder,cone,cube,cuboid, pyramid and prism. Isometric views from given different orthographic projections(front, side and topview)
13	1	UNIT-V:IntroductiontoAutoCAD Basic introduction and operational instructions of various commands in AutoCAD. At least two sheets of different objects on AutoCAD (given pictorial/isometric view of a block).
	2	AutoCAD skill of student
14	1	3 rd sessional
	2	3 rd sessional
15	1	Revision
	2	Revision

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Subject Incharge

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