F.E. FIRST SEMESTER

Course Code – **210105**

Course Name: ENGINEERING GRAPHICS-I

Credit Points : **1**	Teaching Hrs/Week	Practicals / week
		2 Hr / Week

Objective	• To make all F.E. students familiar with imagination Objects. • To interpret basic concepts of drawing in First angle projections. • To understand basic concepts of orthographic and isometric projections. • To make use of engineering drawing language to communicate and relate it to day to day work.
Prerequisites	

Unit	Topic Name	Details	Hrs
1	**Lines, Lettering, Dimensioning and Scales**	Different types of lines used in drawing practice, method of dimensioning - aligned and unidirectional systems (According to SP-46: 1988 Engineering Drawing Practice for Schools and Colleges), scales.	2
2	**Orthographic Projections**	Principal planes of Projection - Horizontal plane or horizontal reference plane, vertical plane or frontal reference plane, profile planes of projection, first and third angle methods of projection. Orthographic projections, Sectional views: - full, half, partial (broken or local), offset, revolved, removed sections.	6
3	**Isometric Projections**	Definition, isometric scale, drawing isometric view and isometric projections from the given orthographic views with reference to given origin.	6
4	**Geometrical construction**	Dividing of line and angle in to its parts. Tangents to circles. Construction of polygons, Ellipse, parabolas and hyperbolas.	4

Text Books	1. N. D Bhatt, Elementary drawing, Charotar Publishing house, Anand India 2. K.L.Narayana & P.Kannaiah, Text Book on Engineering Drawing, Scitech Publications, Chennai.
Reference Books	1. Warren Luzzader, Fundamentals of Engineering Drawing, Prentice Hall of India, New Delhi. 2. P.S.Gill, Engineering Graphics.

	3. Frederock E. Giesecke, Alva Mitchell & others, Principals of Engineering Graphics., Maxwell McMillan Publication.
Term work	Consist of four A2 (420x594 mm) size drawing sheets as given below: Sheet No.1: Lines, lettering and dimensioning. Sheet No.2: Two problems on orthographic Projections. Sheet No.3: Two problems on Isometric Projections Sheet No.4: Geometrical constructions: Two problems on each curve

Examination Scheme	Term work	25 Marks
	Internal Assessment	Nil
	Final Theory Paper	Nil