Maharashtra State Board of Technical Education, Mumbai **K-2**

LABORATORY ASSIGNMENT /SHEET /JOB /PROJECT ACTIVITY PLANNING (LP)

Academic Year: 2025-26 (ODD) **Date:** 01/07/2025
Institute Name: PPCOE, Karjat **MSBTE Code:** 61303
Program and Code: Electrical Engineering (EE) **Course Code &. Abbr.:** 311006(EGR)
Course Name: ENGINEERING GRAPHICS (EGR) **Name of Faculty:** Ms.Jadhav N.S.
Class: EE1K **Semester:** 1st **Scheme:** K **Learning Hrs.** 30

• Teaching-Learning & Assessment Scheme:

Course Code	Course Title	Abbr	Course Category	Learning Scheme					Credits	Paper Duration	Assessment Scheme										
				Actual Contact Hrs/Week			SLH	NLH			Theory				Based on LL & TSL Practical				Based on SL		Total Marks
											FA-TH	SA-TH	Total		FA-PR		SA-PR		SLA		
				CL	TL	LL					Max	Max	Max	Min	Max	Min	Max	Min	Max	Min	
311006	ENGINEERING GRAPHICS(Civil, Electrical, Mechanical and allied branches)	EGR	DSC	2	-	4	-	6	3	-	-	-	-	-	50	20	50@	20	-	-	100

Abbreviations: CL- Class Room Learning, TL- Tutorial Learning, LL-Laboratory Learning, SLH-Self Learning Hours, NLH-Notional Learning Hours, FA - Formative Assessment, SA -Summative assessment, IKS – Indian Knowledge System, SLA - Self Learning Assessment
Legends: @ Internal Assessment, # External Assessment, *# On Line Examination, @$ Internal Online Examination

• COURSE LEVEL LEARNING OUTCOMES (COS)

- CO1 - Draw geometrical figures and engineering curves.
- CO2 - Apply principles of orthographic projections for drawing given pictorial views.
- CO3 - Draw isometric views of given component or from orthographic projections.
- CO4 - Use various drawing codes, conventions and symbols as per IS SP-46 in engineering drawing.
- CO5 - Draw free hand sketches of given engineering elements.

• COs, Practical Laboratory Learning Outcome (LLOs) and Mapping:

Pr. No	COs	LLO	Name of Experiments / Assignment / Sheet / Job/ Project Activity	Planned Date A/B/C		Actual date of Performance	Remark
				From	To		
1	CO1	1.1	Draw horizontal, vertical, 30 degree, 45 degree, 60 & 75 degrees lines using Tee and Set squares/ drafter. (Sketch Book).	A- B- C-	A- B- C-	A- B- C-	
2	CO1	2.1	Draw different types of lines, dimensioning styles (Sketch Book)	A- B- C-	A- B- C-	A- B- C-	
3	CO1	3.1	Draw one figure showing dimensioning techniques, two problems on redraw the figures and one problem on loci of points - slider crank mechanism. (Sketch Book).	A- B- C-	A- B- C-	A- B- C-	
4	CO1	4.1	Draw one figure showing dimensioning techniques, two problems on redraw the figures and one problem on loci of points - slider crank mechanism. (01 Sheet).	A- B- C-	A- B- C-	A- B- C-	

5	CO1	5.1	Draw any four Engineering Curves (Sketchbook)	A- B- C-	A- B- C-	A- B- C-	
6	CO1	6.1	Draw any four Engineering Curves – (01 Sheet)	A- B- C-	A- B- C-	A- B- C-	

7	CO2	7.1	Solve problems on Compound, Allied, multiple and sub multiple angles for related shapes.	A- B- C-	A- B- C-	A- B- C-	
8	CO2	8.1	Draw two problems on orthographic projections using first angle method of projection having plain surfaces, slanting surfaces and slots etc.- (01 Sheet)	A- B- C-	A- B- C-	A- B- C-	
9	CO2	9.1	Draw two problems on orthographic projections using first angle method of projection having cylindrical surfaces, ribs etc. (Sketchbook)	A- B- C-	A- B- C-	A- B- C-	
10	CO3	10.1	Draw two problems on orthographic projections using first angle method of projection having cylindrical surfaces, ribs etc.- (01 Sheet)	A- B- C-	A- B- C-	A- B- C-	
11	CO3	11.1	Draw two problems on Isometric view of simple objects having plain and slanting surfaces by using natural scale. (Sketchbook)	A- B- C-	A- B- C-	A- B- C-	
12	CO3	12.1	Draw two problems on Isometric view of simple objects having plain and slanting surfaces by using natural scale. (01 sheet)	A- B- C-	A- B- C-	A- B- C-	
13	CO4	13.1	Draw two problems on Isometric Projection of objects having cylindrical surfaces and slots on slanting surfaces by using isometric scale.(Sketchbook)	A- B- C-	A- B- C-	A- B- C-	
14	CO4	14.1	Draw two problems on Isometric Projection of objects having cylindrical surfaces and slots on slanting surfaces by using isometric scale. (01 sheet)	A- B- C-	A- B- C-	A- B- C-	
15	CO4	15.1	Problem Based Learning: Given the orthographic views of at least three objects with few missing lines, the student will try to imagine the corresponding objects, complete the views and draw these views (sketch book).	A- B- C-	A- B- C-	A- B- C-	
16	CO4	16.1	Draw freehand Sketches of 12 different standard components (Sketch book)	A- B- C-	A- B- C-	A- B- C-	
17	CO4	17.1	Draw freehand Sketches of 12 different standard components (1 Sheet)	A- B- C-	A- B- C-	A- B- C-	
18	CO4	18.1	Correlate ancient Indian sculptures, Indian temples, Monuments, etc. with Engineering Graphics	A- B- C-	A- B- C-	A- B- C-	

. ASSESSMENT METHODOLOGIES/TOOLS

- **Formative assessment (Assessment for Learning)**
  - Term Work
  - Sheet Submission
- **Summative Assessment (Assessment of Learning)**
  - End Term Exam Theory
  - Micro-project
  - Tutorial Performance

(Name & Signature of Faculty) **(Name & Signature of HOD)**