

PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY

Department of Mechanical Engineering

Faculty Name: - Deepak Gumber

Subject Name: - Engg. Graphics & Design

Year/Semester: 1st / 2nd

Subject Code: - ES-109A

LESSON PLAN (2022-2023)

Sr. No.	Unit No	Lecture No.	Topics To Be Covered
1.		1	Introduction, COs, Exam Pattern
2.	I	2-3	Principles of Engineering Graphics and their significance , usage of Drawing instruments, Lettering
3.	I	4	Scales – Plain scales
4.	I	5-6	Plain scales with numerical problems
5.	I	7	Diagonal Scales
6.	I	8-9	Diagonal scales with numerical problems
7.	I	10	Vernier scales with numerical problems
8.	II	11-12	Principles of Orthographic Projections – Conventions, Projections of Points
9.	II	13	Projections of Lines parallel to both planes and perpendicular to one plane & parallel to other plane and inclined to one plane & parallel to other plane
10.	II	14-15	Projections of lines inclined to both the reference planes
11.	II	16	Projections of planes perpendicular to both plane and projections of planes inclined to one plane & parallel to other plane with numerical problems
12.	II	17-18	Projections of planes inclined to one Principal Plane with numerical problems
13.	II	19-20	Introduction of solids, terms associated with solids, classification of solids and position of axis of a solid
14.	II	21	Solid with axis perpendicular to one plane & parallel to other plane with numerical problems
15.	II	22-23	Solid with axis parallel to both planes, axis inclined to one plane & parallel to other plane and axis inclined to both the planes with numerical problems
16.	III	24	Sectional views of simple right regular solids like prism, pyramid, Cylinder and Cone.
17.	III	25-26	Sectional views of simple right regular solids like prism, pyramid, Cylinder and Cone with numerical problems
18.	III	27	Development of surfaces of Right Regular Solids- Prism, Pyramid, Cylinder and Cone

19.	III	28-29	Development of surfaces of Right Regular Solids- Prism, Pyramid, Cylinder and Cone
20.	I	30	Cycloid, Epicycloid, Hypocycloid, Involute
21.	I	31-32	Cycloid, Epicycloid, Hypocycloid, Involute
22.	I	33-34	Conic sections including the Rectangular Hyperbola
23.	IV	35	Principles of Isometric projection – Isometric Scale, Isometric Views, Conventions
24.	IV	36-37	Isometric Views of lines, Planes, Simple and compound Solids
25.	IV	38	Conversion of Isometric Views to Orthographic Views and Vice-versa, Conventions
26.	IV	39-40	Conversion of Isometric Views to Orthographic Views and Vice-versa, Conventions - problems
27.	IV	41	Revision
28.	IV	42-43	Revision
29.	IV	44	Revision

Deepak Gumber
(Subject Incharge)

Topics covered beyond syllabus

Sr. No.	Topics Beyond Syllabus	Action Taken
1	Addition of different types of lines and sizes of drawing boards and drawing sheets and various types of section come under SP-46	Discussion
2	Addition of classification of various types of projections	Discussion
3	Orthographic projection of nut and bolt	Video Lecture, YouTube video