TCET/FRM/IP-02/10 | **Semester Plan (Theory)** | **Revision: A**

Semester: I | **Course: BE**

Subject: FEC 204: Engineering Drawing | **Class: FE (Common)**

Sr. No	Prerequisite/ Bridge course	Duration (Week /Hrs)	Modes of Learning	Recommended Sources
1	The knowledge of simple geometrical terminology, use of basic drawing instruments like scale, protractor, compass etc., understanding simple constructional procedures isessential for understanding the theories and methods in engineering drawing.	7 hours	Self Learning/ Revision	**Textbooks:** 1. Engineering Drawing by N D Bhatt, Charotar Publishing House Pvt. Ltd. 2. Engineering Drawing by M.B Shah & B.C Rana, Pearson Publications

Class Room Teaching

Sr. No.	Module No.	Lesson No.	Topics Planned (Technology to be used)	Teaching Aids Required	Planned Date	Completion Date	Resource Book Reference	Remarks
1	-	S1	Subject Orientation	PPT				
2	-	S2	Subject OBE	PPT				
3	1	L1	Introduction to Engineering Drawing, Types of Lines, Dimensioning and AutoCAD	Chalk / Duster/ PPTs & Videos				
4	1	L2	Cycloid.	Chalk / Duster/ PPTs & Videos				
5	1	L3	Cycloid,	Chalk / Duster/ PPTs & Videos				
6	1	L4	Involute	Chalk / Duster/ PPTs & Videos				
7	1	L5	Helix	Chalk / Duster/ PPTs & Videos				
8	2	L6	Projections of Points	Chalk / Duster/ PPTs & Videos				
9	2	L7	Introduction & Master Problem	Chalk / Duster/ PPTs & Videos				
10	2	L8	With DBEP Input	Chalk / Duster/ PPTs & Videos				
11	2	L9	Mixed Quadrants	Chalk / Duster/ PPTs & Videos				
12	2	L10	Mid-point Location	Chalk / Duster/ PPTs & Videos				
13	2	L11	Mixed Conditions	Chalk / Duster/ PPTs & Videos				
14	3	L12	Pentagon, Hexagon & Circle	Chalk / Duster/ PPTs & Videos				

Sr. No.	Module No.	Lesson No.	Topics Planned (Technology to be used)	Teaching Aids Required	Planned Date	Completion Date	Resource Book Reference	Remarks
15	3	L13	Introduction to Projection of Solids, Section of Solids & DLS	Chalk / Duster/ PPTs & Videos				
16	3	L14	Projection of Solids: Prisms	Chalk / Duster/ PPTs & Videos				
17	3	L15	Projection of Solids: Pyramids (Rectangle & Triangle)	Chalk / Duster/ PPTs & Videos				
18	3	L16	Projection of Solids: Pyramids (Pentagon)	Chalk / Duster/ PPTs & Videos				
19	3	L17	Projection of Solids: Pyramids (Hexagon)	Chalk / Duster/ PPTs & Videos				
20	3	L18	Projection of Solids: Cylinders	Chalk / Duster/ PPTs & Videos				
21	3	L19	Projection of Solids: Cones.	Chalk / Duster/ PPTs & Videos				
22	3	L20	Projection of Solids: Cones,	Chalk / Duster/ PPTs & Videos				
23	4	L21	Section of Solids – Basics & Prisms	Chalk / Duster/ PPTs & Videos				
24	4	L22	Section of Solids: Prisms	Chalk / Duster/ PPTs & Videos				
25	4	L23	Section of Solids: Pyramids (Rectangle & Triangle)	Chalk / Duster/ PPTs & Videos				
26	4	L24	Section of Solids: Pyramids (Pentagon & Hexagon)	Chalk / Duster/ PPTs & Videos				
27	4	L25	Section of Solids: Cylinders	Chalk / Duster/ PPTs & Videos				
28	4	L26	Section of Solids: Cones	Chalk / Duster/ PPTs & Videos				
29	4	L27	Development of Lateral Surfaces – Basics & Prisms	Chalk / Duster/ PPTs & Videos				
30	4	L28	DLS: Pyramids (Rectangle & Triangle)	Chalk / Duster/ PPTs & Videos				
31	4	L29	DLS: Pyramids (Pentagon & Hexagon)	Chalk / Duster/ PPTs & Videos				
32	4	L30	DLS: Cylinders & Cones	Chalk / Duster/ PPTs & Videos				
33	5	L31	Blocks & objects with inclined surfaces	Chalk / Duster/ PPTs & Videos				
34	5	L32	Combination of Blocks, Plates, Ribs and Webs	Chalk / Duster/ PPTs & Videos				

Sr. No.	Module No.	Lesson No.	Topics Planned (Technology to be used)	Teaching Aids Required	Planned Date	Completion Date	Resource Book Reference	Remarks
35	5	L33	Objects with Fillets & rounds, Miscellaneous problems	Chalk / Duster/ PPTs & Videos				
36	5	L34	Sectional orthographic Projections-I	Chalk / Duster/ PPTs & Videos				
37	5	L35	Reading Orthographic Projections	Chalk / Duster/ PPTs & Videos				
38	6	L36	Introduction, Isometric View of Regular shapes and Standard Solids	Chalk / Duster/ PPTs & Videos				
39	6	L37	Problems based on simple parts of Isometric Projections	Chalk / Duster/ PPTs & Videos				
40	6	L38	Problems on complex parts without curves or circle	Chalk / Duster/ PPTs & Videos				
41	6	L39	Problems on Isometric Projection (Combined Problems – With / without curves and circle)	Chalk / Duster/ PPTs & Videos				

Remark:		Syllabus Coverage:	**Content Beyond Syllabus:** Linkage of each module with higher semester.
Course:		Practice Session: 2	
No. of (lectures planned)/(lecture taken): 65 /			
Advanced course: 1. Machine Design	20 Hours	Online NPTEL Videos /Courses	**Web sources:** NPTEL-https://onlinecourses.nptel.ac.in **Textbook reference: University Syllabus**

Text Books:

1. N.D. Bhatt, “Engineering Drawing (Plane and solid geometry)”, Charotar Publishing House Pvt. Ltd.
2. N.D. Bhatt & V.M. Panchal, “Machine Drawing”, Charotar Publishing House Pvt. Ltd.
3. M.B Shah & B.C Rana, “Engineering Drawing”, Pearson Publications.
4. P.J. Shah, “Engineering Graphics”, S Chand Publications.
5. Dhananjay A Jolhe, “Engineering Drawing” Tata McGraw Hill
6. Prof. Sham Tickoo (Purdue University) & Gaurav Verma, “(CAD Soft Technologies): AutoCAD 2012 (For engineers and Designers)”, Dreamtech Press New Delhi.

Digital Reference:

www.nptel.ac.in

Name & Signature of Faculty
Date:

Signature of HOD
Date:

Signature of Principal /Dean (Academics)
Date: