



SYNERGY SCHOOL OF ENGINEERING, DHENKANAL
DEPARTMENT OF MECHANICAL ENGINEERING

LESSON PLAN

SESSION- 2026-2027

SUBJECT- COMPUTER AIDED MACHINE DESIGN LAB	TOTAL PERIODS-60
BRANCH- MECHANICAL ENGG SEMESTER- 5 TH	COURSE CODE- MEPC 307 PR- 2
NAME- Somnath Sethy , Lecturer/ Aswini Parida, Lab Asst.	StartDate- 01/07/2026 End Date- 05/11/2026

Sl No.	week	Day (2 periods/day)	Topic To be Covered
1	1ST	1stday	Importance of Computer aided machine design
		2ndday	Importance of Computer aided machine design
2	2ND	1stday	Expt-1: Introduction to CAD software
		2ndday	Introduction to CAD software
3	3RD	1stday	File management, Templates and layers
		2ndday	Model space and layout space, Absolute and relative coordinates, Units and limits
4	4TH	1stday	Expt-2: Drawing aids and editing tools: Grid and snap settings, Ortho and polar tracking, Object snaps (OSNAP)
		2ndday	Drawing aids and editing tools: Grid and snap settings, Ortho and polar tracking, Object snaps (OSNAP)
5	5TH	1stday	Drawing aids and editing tools :Selection methods, Modify commands (move, copy, mirror, offset, trim, extend, rotate, scale, array)
		2ndday	Drawing aids and editing tools :Selection methods, Modify commands (move, copy, mirror, offset, trim, extend, rotate, scale, array)
6	6TH	1stday	Expt-3: Annotation, hatching and blocks: Dimensioning (linear, aligned, angular, radius), Dimension styles and settings
		2ndday	Annotation, hatching and blocks: Dimensioning (linear, aligned, angular, radius), Dimension styles and settings
7	7TH	1stday	Text styles and leaders, Hatching patterns, Creating and inserting blocks, Creating W- blocks
		2ndday	Text styles and leaders, Hatching patterns, Creating and inserting blocks, Creating W- blocks
8	8TH	1stday	Expt-4: Isometric drawing, printing and plotting: Creating isometric drawings using isoplane
		2ndday	Setting up viewports, Plotting to scale, Using paper space & model space
9	9TH	1stday	Expt-5: drawing practice and assembly: Sectional and plain elevation drawings, Standard drawing conventions (BIS/ISO)
		2ndday	Drawing practice and assembly: Sectional and plain elevation drawings, Standard drawing conventions (BIS/ISO)
10	10TH	1stday	Generating part lists and bill of materials (BoM), Creating exploded views, Practice on 12 machine parts
		2ndday	Generating part lists and bill of materials (BoM), Creating exploded views, Practice on 12 machine parts
11	11TH	1stday	Generating part lists and bill of materials (BoM), Creating exploded views, Practice on 12 machine parts
		2ndday	Generating part lists and bill of materials (BoM), Creating exploded views, Practice on 12 machine parts
12	12TH	1stday	3D Drawing Basics and Modeling: Introduction to 3D workspace, UCS and view controls, Creating 3D primitives (box, cylinder, cone, sphere)
		2ndday	3D Drawing Basics and Modeling: Introduction to 3D workspace, UCS and view controls, Creating 3D primitives (box, cylinder, cone, sphere)
13	13TH	1stday	Extrude, revolve, sweep, Union and subtract operations, isometric views from 3D models
		2ndday	Extrude, revolve, sweep, Union and subtract operations, isometric views from 3D models
14	14TH	1stday	QUIZ TEST
		2ndday	QUIZ TEST
15	15TH	1stday	QUIZ TEST
		2ndday	EVALUATION

Aswini Parida
02/06/26
Sign of Lab Asst.

Aswini Parida
02/06/26
Sign of Faculty

Aswini Parida
02/06/26
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