

Lesson Plan

Subject: **FM** (Th -3)


Name of faculty: **Er.SATYABRATA KHILAR**

Semester: **4TH** Class allotted: **4p/week**

Branch: **Mechanical**


Session: **2025(S)**

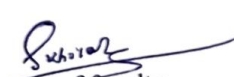
Discipline	Semester	From date:	To date:	Teaching Aid
Subject:	No. of days/ per week	Theory/ Practical –Topics/Lesson		
Week	Date/Period			
1	04/02/2025 TO 08/02/2025	1-Properties of Fluid Define fluid Description of fluid properties like Density, Specific weight, specific gravity, specific volume Definitions and Units of Dynamic viscosity, kinematic viscosity		White Board Marker Smart board
2	10/02/2025 TO 15/02/2025	surface tension Capillary phenomenon ➤ solve simple problems. ➤ solve simple problems. ➤ solve simple problems.		White Board Marker Smart board
3	17/02/2025 TO 22/02/2025	2-Fluid Pressure and its measurements Definitions and units of fluid pressure, pressure intensity and pressure head. Statement of Pascal's Law. Concept of atmospheric pressure, gauge pressure, vacuum pressure and absolute pressure		White Board Marker Smart board
4	24/02/2025 TO 01/03/2025	Pressure measuring instruments Manometers (Simple and Differential) Bourdon tube pressure gauge ➤ solve simple problems ➤ solve simple problems ➤ solve simple problems		White Board Marker Smart board
5	03/03/2025 TO 08/03/2025	3-Hydrostatics Definition of hydrostatic pressure Total pressure and centre of pressure on immersed bodies(Horizontal and Vertical Bodies) Archimedes 'principle, concept of buoyancy, meta center and meta centric height (Definition only)		White Board Marker Smart board
6	10/03/2025 TO 15/03/2025	Concept of floatation ➤ solve simple problems. ➤ solve simple problems ➤ solve simple problems		White Board Marker Smart board


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7	17/03/2025 TO 22/03/2025	4-Kinematics of Flow Types of fluid flow Continuity equation(Statement and proof for one dimensional flow) Bernoulli's theorem(Statement and proof)	White Board Marker Smart board
8	24/03/2025 TO 29/03/2025	Applications and limitations of Bernoulli's theorem (Venturimeter, pitot tube) ➤ solve simple problems ➤ solve simple problems	White Board Marker Smart board
9	31/03/2025 TO 05/04/2025	5- Orifices, notches & weirs Define orifice Flow through orifice Orifices coefficient & the relation between the orifice coefficients. INTERNAL ASSESMENT TEST	White Board Marker Smart board
10	07/04/2025 TO 12/04/2025	Classifications of notches & weirs Discharge over a rectangular notch or weir. ➤ Numerical problem ➤ Numerical problem ➤ Numerical problem	White Board Marker Smart board
11	14/04/2025 TO 19/04/2025	6-Flow through pipe Definition of pipe. Loss of energy in pipes. Head loss due to friction: Darcy's and Chezy's formula (Expression only)	White Board Marker Smart board
12	21/04/2025 TO 26/04/2025	Hydraulic gradient and total gradient line ➤ Numerical problem ➤ Numerical problem ➤ Numerical problem	White Board Marker Smart board
13	28/04/2025 TO 03/05/2025	➤ Numerical problem ➤ Numerical problem ➤ Numerical problem 7-Impact of jets Impact of jet on fixed and moving vertical flat plates	White Board Marker Smart board
14	05/05/2025 TO 10/05/2025	Derivation of work done on series of vanes and condition for maximum efficiency. Impact of jet on moving curved vanes, illustration using velocity triangles, derivation of work done, efficiency.	White Board Marker Smart board
15	12/05/2025 TO 17/05/2025	➤ Numerical problem ➤ Numerical problem ➤ Numerical problem Revision Revision	White Board Marker Smart board


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