



PimpriChinchwad Education Trust's
PimpriChinchwad College of Engineering
Sector No. 26, Pradhikaran,
Nigdi, Pune – 411 044



COURSE OUTLINE

Department: Mechanical Engineering
Class: SY Mechanical

A.Y.:2023-24 Sem-II

Date:26th Dec,2023.

Name of the Course: **Fluid Mechanics**

Relevance of the course:

Fluid mechanics is a fundamental course in engineering education. Fluid mechanics is part of the standard curriculum for a wide range of engineering disciplines, such as energy and process engineering, mechanical and plant engineering, shipbuilding, civil engineering, agriculture, environmental engineering, food technology etc. It requires the prerequisite knowledge from courses given below

- Thermodynamics
- Engineering Mathematics
- Engineering Physics

Course Outcomes

CO No	CO Statement	No. of Lectures Planned	Content Delivery method	Assessment tools Planned
1.	Apply the laws of fluid statics to determine various fluid properties	7	PPT,Case study,Animation,C & B,Demonstartion Models/Equipments	IE1,MTE,ETE
2.	Analyze fluid flow behavior in different systems	8	PPT,Case study,Animation,C & B,Demonstartion Models/Equipments	IE1,MTE,ETE
3.	Apply Bernoulli's equation for different fluid systems	6	PPT,Case study,Animation,C & B,Demonstartion Models/Equipments	MTE,ETE
4.	Evaluate the losses in internal flow systems	7	PPT,Case study,Animation,C & B,Demonstartion Models/Equipments	IE2, ETE
5.	Evaluate the properties of fluids related to external fluid flow.	7	PPT,Case study,Animation,C & B,Demonstartion Models/Equipments	IE2, ETE




6.	Identify dimensionless numbers related to fluid flow and apprehend their significance	7	PPT,Case study,Animation,C & B,Demonstartion Models/Equipments	ETE
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Internal Evaluation:

Tools	Assessment tools with tentative dates (Quizzes, mini project, research paper based assignment etc.)	Marks	Mapped COs
IE1	Open Ended Activity: Task submission on real life applications/problems related with fluid properties and fluid dynamics	10	CO1 CO2
IE2	Open Ended Activity: Assessment and Evaluation of nature of flow/minor and major losses/boundary layer etc.	10	CO4 CO5

Industrial Visit:

GUEST LECTURE ON ‘MODERN FLOW VISUALIZATION TECHNIQUES ‘ BY MR.GANAPATI KAMBLE(HSDC Havant & South Downs,UK)

		
Course Faculty SY A	Course Faculty SYB Dr. Mrs. N.A. Mandhare	Course Faculty SY C
Course Coordinator Dr. Mrs. N.A. Mandhare	Module Coordinator Thermal Mr. U.I. Shaikh	