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

COURSE OUTLINE

Department: Mechanical Engineering A.Y.:2022-23 Sem-II Date:27th Feb,2023.
Class: SY Mechanical

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

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:

INDUSTRIAL VISIT TO CWPRS, PUNE, TENTATIVLY ON APRIL 6, 7, 2023.

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