

SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline: Mechanical.	Semester: 4th	Name of the Teaching Faculty: Syed Imran Hasan.
Subject: Fluid Mechanics.	No of Days/per week class allotted: 4	Semester from Date: 16.1.24. to Date: 26/4/24. No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Introduction to Fluids, Properties.
	2nd	Density and specific weight of fluids.
	3rd	Specific gravity, specific volume.
	4th	Problem solving -
	5th	
2nd	1st	Dynamic Viscosity, Intro and units.
	2nd	Kinematic Viscosity, Intro and units.
	3rd	Surface Tension
	4th	Capillary Phenomenon.
	5th	
3rd	1st	Fluid Pressure - Intro, units.
	2nd	Pressure Density, Pressure head
	3rd	Pascal's Law - Statement, formulae.
	4th	Atmospheric Pressure, Gauge Pressure.
	5th	
4th	1st	Vacuum and Absolute Pressure.
	2nd	Pressure Measuring Instruments
	3rd	Manometer (Simple, Differential).
	4th	Bourdon Tube, Problems.
	5th	
5th	1st	Hydrostatic Pressure, Intro, Definition
	2nd	Total Pressure on Immersed Body.
	3rd	Total Pressure on Horizontal/Vertical Body.
	4th	Center of Pressure on immersed bodies.
	5th	

SR

Sign of Faculty

SR

HOD

SR  
16/1/24

Principal

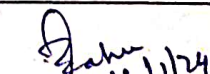
SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline:		Name of the Teaching Faculty:	
Semester:		to Date:	
Subject:	No of Days/per week class allotted:	Semester from Date:	No of Weeks:
Week	Class Day	Theory/Practical Topics	
1st	1st	Problem Solving	
	2nd	Archimedes Principle, Buoyancy.	
	3rd	Meta Center, Meta Centre height	
	4th	Floation - concept, Introduction.	
	5th		
2nd	1st	Types of Fluid Flow	
	2nd	continuity equation - statement.	
	3rd	Proof for one dimensional flow	
	4th	Problem Solving.	
	5th		
3rd	1st	Bernoulli's Theorem - statement	
	2nd	Application of Bernoulli's Theorem.	
	3rd	Venturimeter	
	4th	Pitot tube.	
	5th		
4th	1st	Orifice Meter - Introduction.	
	2nd	Flow through Orifice.	
	3rd	Orifice coefficient and their Relationship	
	4th	Types of Notch or Weirs.	
	5th		
5th	1st	Calculation of discharge Rectangular Notch/weir	
	2nd	Calculation of discharge Triangular Notch/weir	
	3rd	Problem Solving.	
	4th	Problem Solving.	
	5th		

Sign of Faculty

  
HOD

  
Principal 16/1/24



③  
SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline:	Semester:	Name of the Teaching Faculty:
Subject:	No of Days/per week class allotted:	Semester from Date: to Date: No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Flow through Pipes - Introduction.
	2nd	Definition of Pipe flow.
	3rd	Loss of energy calculation - Pipes.
	4th	Head loss due to friction in flow.
	5th	
2nd	1st	Darcy's Expression
	2nd	Chezy's Formula.
	3rd	Problem solving.
	4th	Problem solving.
	5th	
3rd	1st	Hydraulic Gradient.
	2nd	Total Gradient line.
	3rd	Impact of jets - Introduction
	4th	Impact of jet of Fixed Plate
	5th	
4th	1st	Impact of jet on moving Plate
	2nd	Impact of jet on moving Vertical Flat Plate
	3rd	Derivation of work done on Vanes
	4th	Condition for Maxm Efficiency.
	5th	
5th	1st	Impact of jet on moving Curved Vanes.
	2nd	Velocity Triangle calculation
	3rd	Derivation for work done
	4th	efficiency - Problem solving.
	5th	

Sign of Faculty

  
HOD

  
Principal 16/1/24