## **LESSON PLAN**

SUBJECT: ENGG. PHYSICS LAB. BRANCH: COMMON ( ELECTRICAL & COMP. SC.) SEMESTER: 2<sup>ND</sup> (2023-24) NAME OF THE FACULTY: ASEEMA BARIK



## **GOVERNMENT POLYTECHNIC, BHADRAK**

HOD, Math& Sc

cademic Coordinator

Govt. Polytechnic, Bhadrak

## GOVT. POLYTECHNIC, BHADRAK AT: TENTULIGADIA, VIA: RAHANDIA, DIST: BHADRAK, PIN: 756135 E-mail: principalgpbhadrak@gmail.com Tel: 9438806922

## LESSON PLAN FOR SUMMER SEMESTER – 2024 Dept. of Math & Science, Govt.Polytechnic, Bhadrak

Name of the Faculty <u>: Aseema Barik</u> Course Code: Pr-2a Theory: Engg. Phy. Lab Total Periods : 60 Examination: Summer(2024) Sem: 2<sup>nd</sup>

Sessional: 50 End Sem. Exam: 50 Total Mark :100 Class Start : 29.01.2024

Discipline: Electrical & Comp. Sc.	Semester: 2 <sup>nd</sup> (2023)	Name of the Teaching Faculty : Aseema Barik		
Subject: Engineering Physics Lab	No. of Days/per week class allotted:2 days/ 4 classes	Semester from date: 29.01.2024         To Date: 14.05.2024           No. of Weeks: 15		
Week	Class Day	Practical/ Topics		
1 <sup>st</sup>	1 <sup>st</sup> 2 <sup>nd</sup>	<ul> <li>Importance of experimentation and accurate measurement</li> <li>Instruction of maintaining lab record</li> <li>Introduction to vernier caliper, screw gauge, spherometer</li> <li>Demonstration of measurement using vernier caliper</li> </ul>		
	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Measurement of diameter of solid cylinder using vernier caliper</li> </ul>		
2 <sup>nd</sup>	1 <sup>st</sup> 2 <sup>nd</sup>	<ul> <li>Measurement of height of solid cylinder using vernier caliper</li> <li>Discussion on working formula, precautions and record writing</li> </ul>		
	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Dictation/instruction on the record writing</li> <li>Correction of mock record</li> </ul>		
3 <sup>rd</sup>	1 <sup>st</sup>	<ul> <li>Measurement of height, inner diameter and outer diameter of hollow cylinde</li> </ul>		
	3 <sup>rd</sup>	<ul> <li>Measurement of height, inner diameter and outer diameter of hollow cylinde</li> <li>Discussion on working formula and precautions</li> </ul>		

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4 <sup>th</sup>	1 <sup>st</sup>	<ul> <li>Demonstration of measurement using screw gauge and spherometer</li> </ul>		
	2 <sup>nd</sup>			
	3 <sup>rd</sup>	<ul> <li>Demonstration of drawing of magnetic lines of force</li> </ul>		
	4 <sup>th</sup>			
5 <sup>th</sup>	1 <sup>st</sup>	<ul> <li>Lab practice by the students of group</li> <li>✓ Alpha – Cross sectional area of thin wire by screw gauge</li> <li>✓ Beta – Radius of curvature of concave surface using</li> </ul>		
	2 <sup>nd</sup>	spherometer ✓ Gamma – Drawing magnetic lines of force with magnetic north pointing geographic north		
	3 <sup>rd</sup>	<ul> <li>Lab practice by the students of group</li> <li>✓ Alpha – Drawing magnetic lines of force with magnetic north pointing geographic north</li> </ul>		
	4 <sup>th</sup>	<ul> <li>✓ Beta - Cross sectional area of thin wire by screw gauge</li> <li>✓ Gamma – Radius of curvature of concave surface using spherometer</li> </ul>		
6 <sup>th</sup>	1 <sup>st</sup>	<ul> <li>Lab practice by the students of group</li> <li>✓ Alpha – Radius of curvature of concave surface using spheromete</li> </ul>		
	2 <sup>nd</sup>	<ul> <li>✓ Beta - Drawing magnetic lines of force with magnetic north pointing geographic north</li> <li>✓ Gamma – Cross sectional area of thin wire by screw gauge</li> </ul>		
	3 <sup>rd</sup>	<ul> <li>Re-practice on the basis of necessity</li> <li>Record correction</li> <li>Viva</li> </ul>		
	4			
7 <sup>th</sup>	1 <sup>st</sup> .	<ul> <li>Lab practice by the students of group</li> <li>✓ Alpha – Drawing magnetic lines of force with magnetic</li> </ul>		
	2 <sup>nd</sup>	<ul> <li>north pointing geographic south</li> <li>✓ Beta – Thickness and volume of glass piece using screw</li> </ul>		
		gauge ✓ Gamma – Radius of curvature of convex surface using spherometer		
	3 <sup>rd</sup>	<ul> <li>Lab practice by the students of group</li> <li>Alpha – Radius of curvature of convex surface using spherometer</li> </ul>		
	4 <sup>th</sup>	<ul> <li>Beta - Drawing magnetic lines of force with magnetic north pointing geographic south</li> <li>Gamma – Thickness and volume of glass piece using scre gauge</li> </ul>		

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8 <sup>th</sup>	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup>	<ul> <li>Lab practice by the students of group         <ul> <li>Alpha – Thickness and volume of glass piece using screw gauge</li> <li>Beta - Radius of curvature of convex surface using spherometer</li> <li>Gamma – Drawing magnetic lines of force with magnet north pointing geographic south</li> </ul> </li> <li>Re-practice on the basis of necessity</li> </ul>	
	4 <sup>th</sup>	<ul> <li>Record correction</li> <li>Viva</li> </ul>	
9 <sup>th</sup>	1 <sup>st</sup> 2 <sup>nd</sup>	<ul> <li>Re-practice on the basis of necessity</li> <li>Record correction</li> <li>Viva</li> </ul>	
	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Demonstration of measurement of angle of prism and related theory</li> </ul>	
10 <sup>th</sup>	1 <sup>st</sup> 2 <sup>nd</sup>	<ul> <li>Practice of determination of angle of prism by the students</li> </ul>	
	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Practice of determination of angle of prism by the students</li> </ul>	
11 <sup>th</sup>	1 <sup>st</sup> 2 <sup>nd</sup>	<ul> <li>Refraction trough prism and demonstration of determination of angle of minimum deviation by I~D curve method</li> </ul>	
	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Practice of determination of angle of minimum deviation by the students</li> </ul>	
12 <sup>th</sup>	1 <sup>st</sup> 2 <sup>nd</sup>	<ul> <li>Practice of determination of angle of minimum deviation by the students</li> </ul>	
	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Record writing</li> <li>Viva</li> </ul>	
13 <sup>th</sup>	1 <sup>st</sup> 2 <sup>nd</sup>	<ul> <li>Demonstration of determination of time period of simple pendulum and valu of g</li> </ul>	
	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Practice of determination of time period of simple pendulum and value of g b the students</li> </ul>	
14 <sup>th</sup>	1 <sup>st</sup> 2 <sup>nd</sup>	<ul> <li>Practice of determination of time period of simple pendulum and value of g b the students</li> </ul>	

	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Record checking and viva</li> </ul>	
15 <sup>th</sup>	1 <sup>st</sup>	<ul> <li>Record checking and viva</li> </ul>	
	3 <sup>rd</sup> 4 <sup>th</sup>	<ul> <li>Record checking and viva</li> </ul>	

Signature of Faculty