### **LESSON PLAN**

SUBJECT: ENGG. PHYSICS LAB

**BRANCH: COMMON** 

SEMESTER: 2<sup>ND</sup> (2022-23)

NAME OF THE FACULTY: ASEEMA BARIK



# **GOVERNMENT POLYTECHNIC, BHADRAK**

HOD, Math& Sc

**Academic Coordinator** 

Principal
Govt. Polytechnic, Bhadrak

#### **GOVT. POLYTECHNIC, BHADRAK**

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# LESSON PLAN FOR SUMMER SEMESTER – 2023 Dept. of Math & Science, Govt.Polytechnic, Bhadrak

Name of the Faculty : Aseema Barik

Course Code: Pr-2a Theory: Engg. Phy. Lab Total Periods : 60

Examination: Summer(2023)

Sem: 2<sup>nd</sup>

Sessional: 50 End Sem. Exam: 50 Total Mark :100

Class Start: 20.03.2023

Discipline: Semester: 2 <sup>nd</sup> (2023)  Subject: No. of Days/per week class allotted:2 days/ 4 classes		Name of the Teaching Faculty : Aseema Barik	
		Semester from date: 20.03.2023 To Date: 27.06.2023  No. of Weeks: 15	
Week	Class Day	Practical/ Topics	
1 <sup>st</sup>	1 <sup>st</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>	Measurement of diameter of solid cylinder using vernier caliper	
2 <sup>nd</sup>	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup>	<ul> <li>Measurement of height of solid cylinder using vernier caliper</li> <li>Discussion on working formula, precautions and record writing</li> <li>Dictation/instruction on the record writing</li> <li>Correction of mock record</li> </ul>	
3 <sup>rd</sup>	1 <sup>st</sup>	Measurement of height, inner diameter and outer diameter of hollow cylinder	
	3 <sup>rd</sup>	<ul> <li>Measurement of height, inner diameter and outer diameter of hollow cylinder</li> <li>Discussion on working formula and precautions</li> </ul>	

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

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

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