KIIT POLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session (2023 -2024)

Discipline: Civil/ Mechanical/ Metallurgy	**Semester:** 1st, Winter /2023	**Name of the faculty:** Sukanta Kumar Rout **Email Id:** rsukantfpy@kp.kiit.ac.in
Subject: Engineering Physics Practical (Pr-2a)	**No. of Days/week:** 02 (2 periods / Day) Experiments will be performed in small groups of 5 to 6 students	**Start Date:** 16/08/2023 **End Date:** 09/01/2024

Week	Class Day	Practical Topics
1st	1st	Familiarization with various shapes, measuring instruments like slide calliper, screw gauge and spherometer
	2nd	Find the least count of the different measuring instruments.
2nd	1st	• To Find the Cross-Sectional Area of a Wire Using Screw Gauge • To Find the Volume of a Solid Cylinder Using a Vernier Calipers • To Determine the Radius of Curvature of a Convex Surface Using a Spherometer • To Verify Ohm's Law by Ammeter – Voltmeter Method
	2nd	• To Find the Cross-Sectional Area of a Wire Using Screw Gauge • To Find the Volume of a Solid Cylinder Using a Vernier Calipers • To Determine the Radius of Curvature of a Convex Surface Using a Spherometer • To Verify Ohm's Law by Ammeter – Voltmeter Method
3rd	1st	• To Find the Cross-Sectional Area of a Wire Using Screw Gauge • To Find the Volume of a Solid Cylinder Using a Vernier Calipers • To Determine the Radius of Curvature of a Convex Surface Using a Spherometer • To Verify Ohm's Law by Ammeter – Voltmeter Method

	2nd	• To Find the Cross-Sectional Area of a Wire Using Screw Gauge • To Find the Volume of a Solid Cylinder Using a Vernier Calipers • To Determine the Radius of Curvature of a Convex Surface Using a Spherometer • To Verify Ohm's Law by Ammeter – Voltmeter Method
4th	1st	• To Find the Cross-Sectional Area of a Wire Using Screw Gauge • To Find the Volume of a Solid Cylinder Using a Vernier Calipers • To Determine the Radius of Curvature of a Convex Surface Using a Spherometer • To Verify Ohm's Law by Ammeter – Voltmeter Method
	2nd	• Repeat Class/Defaulter
5th	1st	• To Find the Volume of a Hollow Cylinder Using a Vernier Calipers • To Find the Thickness and Volume of a Glass Piece Using Screw Gauge • To Determine the Radius of Curvature of a Concave Surface Using a Spherometer • To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing North and Locate the Neutral Points
	2nd	• To Find the Volume of a Hollow Cylinder Using a Vernier Calipers • To Find the Thickness and Volume of a Glass Piece Using Screw Gauge • To Determine the Radius of Curvature of a Concave Surface Using a Spherometer • To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing North and Locate the Neutral Points
6th	1st	• To Find the Volume of a Hollow Cylinder Using a Vernier Calipers • To Find the Thickness and Volume of a Glass Piece Using Screw Gauge • To Determine the Radius of Curvature of a Concave Surface Using a Spherometer • To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing North and Locate the Neutral Points
	2nd	• To Find the Volume of a Hollow Cylinder Using a Vernier Calipers • To Find the Thickness and Volume of a Glass Piece Using Screw Gauge

		• To Determine the Radius of Curvature of a Concave Surface Using a Spherometer • To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing North and Locate the Neutral Points
7th	1st	• To Find the Volume of a Hollow Cylinder Using a Vernier Calipers • To Find the Thickness and Volume of a Glass Piece Using Screw Gauge • To Determine the Radius of Curvature of a Concave Surface Using a Spherometer • To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing North and Locate the Neutral Points
	2nd	• Repeat Class
8th	1st	• To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing South and Locate the Neutral Points • To Determine the Angle of Prism • To Find the Time Period of a Simple Pendulum and Determine Acceleration Due to Gravity (g) • To Determine the Angle of Minimum Deviation By I – D Curve Method
	2nd	• To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing South and Locate the Neutral Points • To Determine the Angle of Prism • To Find the Time Period of a Simple Pendulum and Determine Acceleration Due to Gravity (g) • To Determine the Angle of Minimum Deviation By I– d Curve Method
9th	1st	• To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing South and Locate the Neutral Points • To Determine the Angle of Prism • To Find the Time Period of a Simple Pendulum and Determine Acceleration Due to Gravity (g) • To Determine the Angle of Minimum Deviation By I – D Curve Method
	2nd	• To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing South and Locate the Neutral Points • To Determine the Angle of Prism • To Find the Time Period of a Simple Pendulum and Determine

		Acceleration Due to Gravity (g) • To Determine the Angle of Minimum Deviation By I – D Curve Method
10th	1st	• To Trace Lines of Force Due to A Bar Magnet with North Pole Pointing South and Locate the Neutral Points • To Determine the Angle of Prism • To Find the Time Period of a Simple Pendulum and Determine Acceleration Due to Gravity (g) • To Determine the Angle of Minimum Deviation By I – D Curve Method
11th	2nd	Repeat Class
12th	1st	Repeat Class for experiment 1,2 & 3
	2nd	Repeat Class for experiment 4,5 & 6
13th	1st	Repeat Class for experiment 7,8 & 9
	2nd	Repeat Class for experiment 10,11 & 12
14th	1st	Practice Test
	2nd	Practice Test