Lesson plan(2026-27)

Name of faculty	-	**Mohit Yadav**
Discipline	-	**Common for all branches**
Semester	-	**1st sem.(250013)**
Subject	-	**Applied Physics-1**
Code	-	**250013**
Lesson plan duration	-	**03-Aug-2026 to 23-Nov-2026**
Work load (practical) per week	-	**02 period per week**

Week	Practical
1	Familiarization of measurement instruments and their parts
2	To find internal diameter and depth of beaker using a Vernier calliper and find its volume
3	To find the diameter of wire using screw gauge
4	Revision and checked practical note book
5	To find thickness of paper using screw gauge
6	Revision and checked practical note book
7	To determine the thickness of glass strip using spherometer
8	Revision and checked practical note book
9	To determine radius of curvature of a given spherical surface by a spherometer
10	To verify parallelogram law of forces
11	Revision and checked practical note book
12	Revision and checked practical note book
13	To determine force constant of spring using hook's law
14	To measure the room temperature with the help of thermometer and its conversion in different scales

Mohit Yadav
Lecturer in Physics

20/7/26.
PAC CommitteeMember-1
Sh. Narender Rana

20/07/26
PAC Committee Member-2
Smt.Sonia

Jyoti 20/7/26
PAC Committee Member-3
Dr. Jyoti Gupta

Lesson plan(2026-27)

Name of faculty - **Mohit Yadav**
Discipline - **Common for all branches**
Semester - **1st sem.(250013)**
Subject - **Applied Physics-1**
Code - **250013**
Lesson plan duration - **03-Aug-2026 to 23-Nov-2026**
Work load (lecture) per week - **02 lectures per week**

Lecture No.	Theory(Topic)
1.	Definition of physics , physical quantities, fundamental and derived quantities, Units and its type, fundamental and derived units
2.	Dimension, dimensional formulae, SI unit of physical quantities, System of units,
3.	Application of dimensional analysis, checking the correctness of physical equation,
4.	CGS,MKS,FPS,SIsystem ,Dimensional equation, principle of homogeneity
5.	Conversion of system of unit ,Scalar and vector quantities, unit vector, position vector,
6.	Collinear vector, co-planar vector, co-initial vector
7.	Addition of vector, triangle and parallelogram law
8.	Scalar and vector product, Force and its units resolution of force
9.	Newton's law of motion and its example
10.	Linear momentum, law of conservation of linear momentum, impulse
11.	Circular motion, definition of angular displacement, angular velocity. Angular acceleration
12.	Frequency, time period, application of centripetal force in banking of road , rotational motion
13.	Definition of torque, angular momentum, moment of inertia
14.	Work, type of work and its examples
15.	Friction – definition and its applications with examples ,Power and its unit and formula
16.	Energy – definition and its unit , examples of transformation of energy ,Kinetic energy –definition , formula and its derivation
17.	Potential energy –definition , examples, formula and its derivation
18.	Law of conservation of mechanical energy for freely falling bodies
19.	Simple numerical problem based on formula of power and energy
20.	Elasticity and plasticity , deforming force, restoring force, examples of elastic and plastic bodies
21.	Definition of stress and strain , Hooke's law modulus of elasticity
22.	Pressure , atmospheric pressure, Pascal's law gauge pressure Surface tension, application of surface tension,
23.	Effect of temperature on surface tension Viscosity – definition , examples, effect of temperature on viscosity
24.	Definition of heat and temperature, Difference between heat and temperature
25.	Principle and working of mercury thermometer ,Different scales of temperature and their relation ship
26.	Mode of transfer of heat conduction and convection and radiation with examples Properties of heat radiation

Note: There will be Class Test, Assignment work and Sessional Exam , Quizzes etc will be given as per Academic Calander.

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