DEPARTMENT OF PHYSICS				CLASS: I B.Sc. Physics				
Sem.	Course type	Course code	Course title	Credits	Contact hours/week	CIA	Ext	Total
I, II	Major Practical	20U2PMP1	PRACTICAL - I	3	3	40	60	100

List of Experiments (Any fourteen/year)

Course Objectives:

1. To expose the students to experiments in the areas of Mechanics, properties of matter, Heat and Sound. This Experimental physics course provides hands– on learning experience in measuring the concepts that are learnt theoretically.
2. Laboratory techniques with accuracy in measurements and data analysis enhance effective comprehension of physics concepts.

No.	Experiment
1	Young's Modulus – Uniform bending (pin and microscope)
2	Young's Modulus – Non–uniform bending (pin and microscope)
3	Young's Modulus – Uniform bending (scale and telescope)
4	Young's Modulus – Non–uniform bending (scale and telescope)
5	Young's modulus – Cantilever depression
6	Acceleration due to gravity and the radius of gyration – Compound pendulum
7	Rigidity modulus – Torsion pendulum (with symmetrical masses)
8	Rigidity modulus – Static torsion (scale and telescope)
9	Surface Tension of water and Interfacial Surface Tension – Drop weight method
10	Surface tension of water – Capillary rise method
11	Comparison of viscosities – Capillary flow
12	Co–efficient of viscosity – Stoke's method
13	Co–efficient of viscosity – Poiseulli's flow
14	Co–efficient of linear expansion of rod
15	Specific heat capacity of liquid – Cooling method
16	Latent heat of steam – Newton's law of cooling
17	Thermal conductivity – Lee's Disc
18	Frequency of the tuning fork –Sonometer
19	Frequency of the vibrator– Melde's string
20	Determination of the radius of curvature of the give lens – Newton's rings.
21	Determination of the thickness of the given material– Air wedge
22	Determination of the refractive index of a given prism – Spectrometer.
23	Determination the wavelength of the prominent line using grating – Spectrometer
24	Any experiment related to general physics

Books for References

1. M.N.Srinivasan, S.Balasubramanian, R.Ranganathan, A Text Book of Practical Physics, 2007, Sultan Chand & Sons.
2. Indu Prakash & Ramakrishna, A Text Book of Practical Physics, 2011, Kitab Mahal Agencies, New Delhi. .
3. S.R. GovindaRajan, T. Murugaiyan, S. SundaraRajan, Practical Physics, 2007, Rochouse & Sons.
4. Relevant reference from web Sources.

Course Designers:

1. Dr.R.Vishnu Priya
2. MsG.Gowri
3. Dr.J.Sivasubramanian

Pedagogy

Demonstration and practical session.

Course Learning Outcomes (CLO)

On the successful completion of the course, students will be able to

CLOs	Course Learning Outcomes	Knowledge level
1	Apply the basic laws of physics to determine the various properties of the given materials.	Upto K3
2	Apply knowledge of physics and mathematics to derive solution for various problems.	Upto K3
3	Use the basic laws to study the elastic properties of solids and thermal properties of liquids and solids.	K1
4	Analyse the property of the material by experimenting in different methods.	Upto K4
5	Understand the application of materials.	Upto K2

Mapping of CLO's with PSOs

#	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CLO1	3	2		3		2	3
CLO2	3	3	3	3		3	2
CLO3	3	2		3		2	3
CLO4	3	3	2	3		2	2
CLO5	3	2	1	3		2	3

Mapping of CLO's with POs

#	PO1	PO2	PO3	PO4	PO5
CLO1	1	3			
CLO2	1	3	2		
CLO3		3	1		
CLO4	1	3	2		
CLO5		3	2		

Advance application –3; Intermediate level –2; Basic level–1