Course Code	Course Name	Credits
26PH651	GENERAL PHYSICS LAB	02

Objective

The objective of this laboratory course is to enable students to understand and verify fundamental principles of general physics through experimental methods. Students will develop practical skills in conducting experiments, taking accurate measurements, analyzing data, and interpreting results.

1. Determination of Young's modulus and Poisson's ratio by Hyperbolic fringes – Cornu's Method
2. Measurement of Band gap energy- Thermistor
3. GM counter – Characteristics and inverse square law
4. Measurement of Conductivity - Four probe method
5. Molecular spectra – AlO band
6. Measurement of wavelength of Diode Laser / He – Ne Laser using Diffraction grating
7. Michelson Interferometer – wavelength, separation and thickness of thin sheet
8. Biprism – Optic bench - wavelength, separation and thickness of thin sheet
9. Energy Gap study of a semiconductor
10. Elastic Constants – Hyperbolic fringes
11. e-Millikan's oil drop method
12. Ultrasonic diffraction – velocity and compressibility in liquids
13. Permittivity of a liquid using RFO
14. Polarizability of liquids
15. Determination of transition temperature in liquid crystalline materials
16. Geiger Muller Counter – study of gamma rays
17. Solar cell characteristics
18. Construction of square wave and triangular wave generator using IC741
19. Determination of planck Constant – LED method
20. Hall Effect in Semiconductor, Determine the Hall coefficient, carrier concentration and carrier mobility

Students are required to perform and record at least ten experiments in the laboratory manual as part of the course requirements.