

Course Code	Course Name	Credits
26PH157	PHYSICS LAB	02

Objective

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

1. Young's modulus by non-uniform bending using pin and microscope
2. Young's modulus by uniform bending using pin and microscope.
3. Rigidity modulus by static torsion method.
4. Rigidity modulus by torsional oscillations without mass
5. Surface tension and interfacial Surface tension – drop weight method.
6. Thermal conductivity of poor conductor using Lee's disc
7. Determination of AC frequency using sonometer
8. Determination of dispersive power of a prism
9. Wavelength of mercury lines using spectrometer and grating
10. Refractive index of material of the lens by minimum deviation
11. Calibration of low range voltmeter using potentiometer
12. Determination of thermo e.m.f using potentiometer.
13. Verification of truth tables of basic logic gates using ICs
14. Verification of De Morgan's theorems using logic gate ICs.
15. Use of NAND as universal building block.
16. Use of NOR as universal building block.
17. Characterization of Zener diode / Junction diode.
18. Verification of Kirchhoff's law.
19. Calibration of Wheatstone bridge using breadboard and resistors.
20. Carey Foster Bridge Determination of resistance and Specific Resistance.

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