

Course Code	Course Name	Credits
26PH153	OPTICS LAB	02

Objective

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

1. Determination of Velocity of sound through a wire using Sonometer.
2. Determination of frequency of an electrically maintained tuning fork
3. To verify the laws of transverse vibration using sonometer.
4. Frequency of AC by using sonometer.
5. Determination of Fraunhofer lines by using Spectrometer
6. Determination of refractive index of prism using spectrometer.
7. Determination of refractive index of liquid using hollow prism and spectrometer
8. Determination of dispersive power of a prism.
9. Determination of radius of curvature of lens by forming Newton's rings.
10. Determination of thickness of a wire using air wedge.
11. Determination of Cauchy's Constants.
12. Determination of i-d curve by using spectrometer
13. Determination of resolving power of grating
14. Determination Minimum deviation and dispersive power using grating
15. Determination Normal Incidence using grating
16. Determination of resolving power of telescope
17. Comparison of intensities using Lummer Brodhum Photometer.
18. Determination of range of motion using Searles goniometer.
19. Verification of Newton's formula for a lens separated by a distance.
20. Determination of refractive index using Laser.

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