



Department of Physics

**Course: B.Sc. (PME, PCM, PMS,PMC)
w.e.f. July 2020-21**

Syllabus

Year: 1st, Semester: 2nd

Lab Code: PY109

Subject: Optics Lab

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1. To determine the wavelength of sodium light by Newton's ring.
2. To determine the wavelength of monochromatic light with the help of Fresnel's biprism.
3. To determine the wavelength of mercury light by using Plane diffraction grating.
4. To determine the dispersive power of a plane transmission diffraction grating.
5. To determine the resolving power of a telescope.
6. To determine the specific rotation of cane sugar solution using half shade polarimeter.
7. Verification of Brewster's law.
8. Determination of refractive index of a material of a prism by spectrometer.
9. To determine the refractive index of a water using laser.
10. To determine the focal length of the combination of two lenses separated by a distance with the help of a nodal slide and to verify the formula.

$$\left(\frac{1}{F}\right) = \left(\frac{1}{f_1}\right) + \left(\frac{1}{f_2}\right) - \left(\frac{x}{f_1 f_2}\right)$$