Course Type	Course Code	Name of Course	L	T	P	Credit
DP	NPHC507	Experimental Physics II	0	0	3	1.5

Course Objective

- To familiarize students with basic experiments of optics, modern physics, magnetism etc.
- To increase observational and analytical power of students.

Learning Outcomes

Students will learn:

- Basic physics of working mechanism of each experiment.
- Practical aspects of light interference, diffraction, atomic physics, magnetism etc.
- To enhance experimental capability and instrument handling.

Ex. Number	Title of Experiments	No. of classes
1	To determine the diameter of a human hair by diffraction method using laser	1*3
2	To draw a curve connecting wavelength of known lines and their corresponding minimum deviation produced by a given prism and then to find the wavelength of unknown line from that curve.	2*3
3	To determine wavelength of unknown light using Michelson interferometer	2*3
4	(a) To find numerical aperture of a given optical fiber (b)To observe bending loss in optical fiber	2*3
5	(a) To find the spacing between the Etalon (b) To find the finesse and free spectral region of the Etalon	2*3
6	To calculate the wavelength of emission spectra emitted from a given material	2*3
7	To find refractive index of given glass slide through McZhender interferometer	2*3
8	Characteristic Study of Diode Laser	1*3
Total (Tentatively 42 hours)		**14*3**

References:

1. An Advanced Course in Practical Physics by D. Chattopadhyay, P. C. Rakshit; New Central Book Agency (P) Ltd., 2007 (8e)
2. A Textbook of Advanced Practical Physics by S. K. Ghosh; New Central, 2000 (4e)
3. Advanced Practical Physics, V - I and II by Chauhan and Singh; Pragati Prakashan