Course Type	Course Code	Name of Course	L	T	P	Credit
DP	NPHC512	Experimental Physics III	0	0	3	1.5

Course Objective

- To familiarize students with basic experiments of materials science, electronics and spectroscopy;
- To increase observational and analytical power of students.

Learning Outcomes

Students will learn:

- Basic physics of working mechanism of each experiment.
- Some techniques to find out physical parameters of materials.
- To enhance experimental capability.

Exp. Number	Title of Experiments	No. of classes
1	To determine the compressibility of a given liquid by ultrasonic diffraction grating method	2*3
2	To determine the diffusion potential and band gap of P-N junction	2*3
3	To find out h-parameters of the transistor	2*3
4	To study the characteristics of given Zener diode and then to use it as a voltage regulator	1*3
5	To study Curie temperature of a given ferroelectric material.	2*3
6	To determine g-factor by electron spin resonance method.	2*3
7	To plot the V-I characteristics of photo-resister	1*3
8	To determine the g-factor by the NMR Spectrometer	2*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