



ARSD College, University of Delhi

Model Course Handout/Lesson Plan

Course Name : B.Sc. Electronics(H) Lab						
Semester	Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical (P)	Credit (C)
VI	558	Photonics(CC)	-	-	2	2
Teacher/Instructor(s) Session		Mrs. Ritu Bansal EvenSemester 2021-22				

Course Description:

To understand Light as Electromagnetic wave and various phenomenon like interference, diffraction and polarization. To understand the interactions of a Photon with an electron. Understanding it's relevance to LASER and optoelectronic devices. Understanding the phenomenon of propagation of wave in an optical fibre.

List of Experiments:

Details of the Lab Course		
Session	Name of Experiment	Contact Hours
1	To verify the Law of Malus for Plane Polarized Light.	4
2	To determine wavelength of Sodium Light using Michelson's Interferometer.	4
3	To determine wavelength of Sodium Light using Newton's Rings.	4
4	To determine Resolving Power and Dispersive Power of Diffraction Grating	4
5	Diffraction experiments using a LASER.	4
6	Study of Farady's Rotaion.	8
7	Study of Electro-Optic Effect.	8
8	To determine the specific rotation of cane sugar using Polarimeter.	8
9	To determine Characteristics of LED and Photod.ector	8
10	To measure the Numerical Aperture of an optical Fibre.	8
Total Hours		60
Suggested Books:		
Sl. No.	Name of Authors/Books/Publishers	Year of Publication/Reprint
1.	Ajoy Ghatak, Optics, Tata Mcgraw Hill, New Delhi	2005
2.	E. Hecht, Optics, Pearson Education Ltd.	2002
3.	Ghatak, A.K. Thyagrajan, Introduction to Fibre Optics, Cambridge Univ. Press	1998

Evaluation Scheme:

No.	Component	Duration	Marks
1.	Internal Assessment		25
	● Quiz/Viva		
	● Observation & Record		

	<ul style="list-style-type: none">• Attendance		
	<ul style="list-style-type: none">• Model Exam		
2.	End Semester Examination	3 hr	25

Teacher:

Mrs. Ritu Bansal

Assistant Professor

Department of Electronic Science