	Lecture Plan							
Name of the college: Government College of Arts, Science and Commerce, Sanquelim – Goa.								
Name of Faculty: Ms. Anushka Paniikar	Subject: Physics							
	Subject Hybres							
Paper code: PHY-203 Optics and Modern								
Physics Practicals	Program: SY BSc	Division: -						
Academic year: 2024- 2025	Semester: IV	Total Lectures: 30P						
Course Objectives: This course provides a broad	overview of the topics and skills students a	re expected to gain during their study of						
interference, diffraction, polarization, atomic ph	ysics, properties of electromagnetic radiatio	n, crystal structure, and x-rays.						
Expected Course Outcome: Student will be able	to 1. Analyse the intensity variations of ligh	t due to interference, diffraction and						
polarization. 2. Apply and demonstrate the vario	bus phenomena of optics using experimental	methods. 3. Understand the fundamental						
principles of particle acceleration. 4. Explore pri-	nciples of atomic physics in various sciencific crystallography in in various sciences	c disciplines. 5. Discuss application of A-						
Tays in various news. Discuss the applications of	crystanography in in various sciences.							
Student Learning Outcome: Students will gain a	comprehensive understanding of interferen	ce, diffraction, polarization, atomic						

Month	Lecture From	Lecture To	No. of lect ures allot ted	Topic, Subtopic to be covered	Exercise/ Assignmen t	ICT Tools	Reference books
December	16-12-24	21-12-24	2P	Practicals : Introduction to Physics Laboratory, Frank Hertz experiment		Youtube videos	A handbook of Practical Physics, P.S. Bangui
December	23/12/24	31/12/24	0	Christmas vacation			

January	06/01/25	11/01/25	2P	Measurement of k/e using npn transistor.		A handbook of Practical Physics, P.S. Bangui
January	13/01/25	18/01/25	2P	Cardinal Points of Lens system.		A handbook of Practical Physics, P.S. Bangui
January	20/01/25	25/01/25	2P	Spectrometer: determination of dispersive power of prism		A handbook of Practical Physics, P.S. Bangui

January/February	27/01/25	01/02/25	2P	Photo cell (Verification of Photoelectric effect)		A handbook of Practical Physics, P.S. Bangui
February	03/02/25	08/02/25	2P	Polarimeter		A handbook of Practical Physics, P.S. Bangui
February	10/02/25	15/02/25	2P	Resolving power of telescope using wire mesh.		A handbook of Practical Physics, P.S. Bangui
February	17/02/25	22/02/25	2P	Determination of Planck's constant using LEDs of at least 4 different colours		A handbook of Practical Physics, P.S. Bangui

February/March	24/02/25	01/03/25	2P	Revision		
March	03/03/25	08/03/25	2P	Revision		
Marah	10/02/25	15/02/25	20	Devision		

March	17/03/25	22/03/25	2P	Revision		
March	24/03/25	29/03/25	2P	Revision		
March/April	31/03/25	05/04/25	2P	Exam		

April	07/04/25	11/04/25	2P	Viva		

Assessment Rubrics

	Max
Component	Marks
Practical	25