

Semester Lecture Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim, Goa-India							
Name of Faculty: Ms. Magnolia Aurea Miranda				Subject: Geology			
Paper code: GEO-303			Program/Course: TY B.Sc.			Division:	
Academic year: 2026 - 2027			Semester: III			Total Lectures: 14	
Course Objectives: 1. Demonstrate the characteristics of light and its interaction with minerals. 2. Discuss the optical methods.							
Course Learning Outcome: 1. Explain the optical properties of minerals. CL2 2. Identify minerals based on their optical properties and interference figure. CL3							
Month	Lectures From: To:		No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
JUNE	22/6/26	27/6/26	1	Optical Mineralogy: nature of light,		Projector	Kerr, P. F. (1959). Optical Mineralogy. New York ; Toronto : McGraw-Hill.
JULY	29/6/26	4/7/26	1	polarized light, polarizing microscope		Projector	
	06/7/26	11/7/26	1	polarizing microscope		Projector	
	13/7/26	18/7/26	1	Properties in plane polarized light and		Projector	

				between cross polars: colour, pleochroism,			
	20/7/26	25/7/26	1	relief, twinkling		Projector	
August	27/7/26	1/8/26	1	ISA		Projector	Gribble, C. D., & Hall, A. J. (1992). Optical Mineralogy: Principles and Practice. Routledge. Kerr, P. F. (1959). Optical Mineralogy. New York ; Toronto : McGraw-Hill.
	3/8/26	8/8/26	1	birefringence, interference colors		Projector	
	10/08/26	15/8/26	1	Twinning, zoning, extinction, inclusions			
	17/8/26	22/8/26	1	ISA		Projector	
	24/8/26	29/8/26	1	Properties under conoscopic light		Projector	
September	1/9/26	5/9/26	1	applications in the study of uniaxial and biaxial minerals.	Assignment	Projector	
	7/9/26	12/9/26	1	Uniaxial Indicatrix		Projector	
	21/9/26	26/9/26	1	Biaxial Indicatrix		Projector	
October	28/9/26	3/10/26	1	2v, 2e.		Projector	
	5/10/26	10/10/26	1	Accessory plates: Mica, Quartz, Gypsum.		Projector	

Assessment Rubrics

Component		Max Marks
Theory	ISA 1	5
	ISA 2	5
Practical	SEE	25
Semester End Exam	Theory	20