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-202	**Program/Course: SY B.Sc.**	**Division:**
Academic year: 2025 - 2026	**Semester: IV**	**Total Lectures: 29**

Course Objectives:

1. Explain the binary systems and their applications to magmatic textures and processes. CL2
2. Discuss different mineral groups. CL2
3. Identify minerals megascopically. CL2
4. Demonstrate mineral chemical calculations. CL2

Course Learning Outcome:

1. Compare the working of various binary systems and their applications to magmatic textures and processes. CL2
2. Distinguish between different minerals/mineral groups. CL2
3. Identify minerals based on their physical properties. CL3
4. Calculate mineral formula. CL3

Month	Lectures From:	To:	No. of lectures allotted	Topic, Subtopic to be covered	Exercise / Assignment	ICT Tools	Reference books
December	1/12/25	06/12/25	2	Introduction to mineralogy: definition of a mineral		Projector/ Smart board	2.3

	8/12/25	13/12/25	2	Phase rule, system, Phase components, degrees of variance		Projector/ Smart board	2,3
	15/12/25	20/12/25	0	Tarang			
	22/12/25	23/12/25	2	Mineralogical Phase rule			2,3
January	02/1/26	3/1/26	0			Projector/ Smart board	2,3
	5/01/26	10/01/26	2	Binary system-with eutectic (Di-An)		Projector/ Smart board	**2,3**
	12/1/26	17/01/26	2	Binary system-with eutectic (Di-An)		Projector/ Smart board	**2,3**
	19/01/26	24/01/26	2	Binary System with solid solution Ab An		Projector/ Smart board	2,3
	26/1/26	31/1/26	1	Binary System with solid solution Ab An			
February	02/02/26	07/02/26	2	Binary System with solid solution Ab An		Projector/ Smart board	2,3
	09/02/26	14/02/26	2	Classification of Minerals		Projector/ Smart board	2,3
	16/02/26	21/02/26	2	Structure of silicate minerals		Projector/ Smart board	1,2,3
	23/02/26	28/02/26	2	Olivine Group	Assignment	Projector/ Smart board	1,2,3
March	2/3/26	7/3/26	2	Pyroxene Group	Assignment	Projector/ Smart board	1,2,3

	16/3/25	21/3/25	2	Amphibole Group	Assignment	Projector/ Smart board/ Smart board	1,2,3
	23/03/26	28/03/26	2	Mica Group	Assignment	Projector/ Smart board	1,2,3
	30/03/25	31/03/25	2	Revision		Projector/ Smart board	1,2,3

References:
1. Deer, W. A., Howie, R. A., & Zussman, J. (1978). Rock-forming minerals: Feldspars, Volume 4A. Geological Society of London.
2. Klein, C., & Hurlbut, C. S. Jr. (2021). Dana manual of mineralogy. Wiley.
3. Perkins, D. (2013). Mineralogy: Pearson Higher Ed.

Assessment Rubrics

Component	Max Marks
ISA 1	7.5
ISA 2	7.5

Practical	25
Project	-
Semester End Exam	60