Lecture Plan

Name of the college: Government College of Arts, Science and Commerce, Sanquelim-Goa

Name of Faculty:Diksha Karapurkar Subject: Geology

Paper code: GEO 302: Igneous PetrologyProgram: T.Y.B.Sc.Division: -

Academic year: 2025 - 2026 Semester: V Total Lectures: 09

Course Objectives: The objectives of this course are to:

- 1. Describe the processes involved in the formation of igneous rocks and their diversity. CL2
- 2. Classify igneous rocks. CL2
- 3. Discuss the crystallization of melts by studying textures and structure of igneous rocks. CL2

Course Outcomes:

At the end of the course the student will be able to:

- 1. Explain formation and diversity of igneous rocks. CL2
- 2. Interpret the cooling history of igneous rocks using textures and structures. CL3
- 3. Illustrate crystallization trends in magmatic systems. CL3
- 4. Identify common igneous rocks both in hand specimen and thin section. CL3

Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books	
August	11/08/2025	17/08/2025	1	Igneous Intrusive Structures; Dikes, Sills	Kahoot Quizzes,	Powerpoint Presentations,	Winter, J. D. (2013). Principles of	
					ISAs	Illustrations, Interactive	igneous and metamorphic petrology:	
August	18/08/2025	23/08/2025	1	Batholiths; Stocks; Bosses; Pondants;		digital models,	Pearson New International Edition.	

				Xenoliths
September	02/09/2025	06/09/2025	1	Lacoliths; Lopoliths; Phaccoliths
September	08/09/2025	13/09/2025	1	Extrusive Igneous Structures; Blocky and Ropy Lavas; Columnar and Entablatur Structures; pillow lava,
September	15/09/2025	20/09/2025	1	vesicular, amygdaloidal, columnar, exfoliation joints, lava tubes
September	22/09/2025	27/09/2025	1	volcanic neck; central and fissure type eruptions
September - October	29/09/2025	04/10/2025	1	Crystallization trend of Di-Ab-An system (1)
October	06/10/2025	11/10/2025	1	Crystallization trend of Di-Ab-An system (2)
October	13/10/2025	17/10/2025	1	Crystallization trend of Di-Ab-An system (3)

* Assessment Rubrics

Component	Max Marks
ISA 1	7.5
ISA 2	7.5
ISA 3	7.5

Pearson	Higher Ed.
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