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-100	**Program/Course: FY B.Sc.**	**Division:**
Academic year: 2025 - 2026	**Semester: II**	**Total Lectures: 29**

Course Objectives:

1. Discuss the origin, shape, and size of the Earth. CL2
2. Explain the concepts of continental drift and plate tectonics. CL2
3. Demonstrate the symmetry in crystals. CL2
4. Describe minerals and rocks using physical properties. CL2

Course Learning Outcome:

1. Differentiate the layers of the Earth based on their structure and composition. CL2
2. Identify minerals based on their physical properties. CL3
3. Deduce the symmetry of crystals. CL4
4. Categorize rocks based on their properties. CL4

Month	Lectures From:	To:	No. of lectures allotted	Topic, Subtopic to be covered	Exercise / Assignment	ICT Tools	Reference books
December	1/12/25	6/12/25	2	Physical properties of minerals		Projector/ Smart board	Marshak, S. (2015). Earth science (14th ed.). John
	8/12/25	13/12/25	2	Physical properties of minerals		Projector/ Smart board	

	15/12/25	20/12/25	1	Physical properties of minerals			Wiley & Sons. Monroe, J. S., &Wicander, R. (2015). The changing earth: Exploring Geology and Evolution. Cengage Learning.
	22/12/25	23/12/25	0				
January	2/1/26	3/1/26	1	External characteristics of crystals, face, form, interfacial angles, law of constancy of interfacial angles. Goniometers		Projector/ Smart board	Klein, C., & Hurlbut, C. S. Jr. (2021). Dana manual of mineralogy. Wiley**.**
	05/01/26	10/1/26	2	Crystal symmetry, Classification of crystals		Projector/ Smart board	
	12/1/26	17/1/26	2	crystallographic axes and systems, Parameters and indices		Projector/ Smart board	
	19/1/26	24/1/26	2	Study of the normal symmetry classes. Applications of crystal properties		Projector/ Smart board	

	26/1/26	31/1/26	1	Introduction of common rock - forming minerals	Assignment		Marshak, S. (2015). Earth science (14th ed.). John Wiley & Sons. Monroe, J. S., &Wicander, R. (2015). The changing earth: Exploring Geology and Evolution. Cengage Learning.
February	2/2/26	7/2/26	2	Introduction of common rock - forming minerals	Assignment	Projector/ Smart board	
	9/2/26	14/2/26	2	Introduction of common rock - forming minerals	Assignment	Projector/ Smart board	
	16/2/26	21/2/26	2	Rocks: their classification into three broad classes, igneous, sedimentary and metamorphic,		Projector/ Smart board	
	23/2/26	28/2/26	2	Rock Cycle Igneous Rocks: plutonic hypabyssal and volcanic types.		Projector/ Smart board	
March	2/3/26	7/3/26	2	Forms, structures and textures. Bowen's Reaction series.	Assignment	Projector/ Smart board	
	16/3/26	21/3/26	2	Classification based on grain size and mineral composition. Mineralization.	Assignment	Projector/ Smart board/ Smart board	
	23/3/26	28/03/26	2	Metamorphic Rocks: agents of metamorphism, types of metamorphism,		Projector/ Smart board	
	30/03/26	31/03/26	2	fabric and Classification of Metamorphic Rocks		Projector/ Smart board	

Assessment Rubrics

Component	Max Marks
ISA 1	7.5
ISA 2	7.5
Practical	25
Project	-
Semester End Exam	60