

## Lecture Plan

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

**Name of Faculty: Dattaraj Jawdekar**

**Subject: GEOLOGY**

**Paper code: GEC 106**

**Program: TYBSC**

**Division: -**

**Academic year: 2024 - 2025**

**Semester: V**

**Total Lectures: 60**

### Course Objectives:

Students will acquire knowledge about the scope and importance of Structural Geology  
Students will understand the concept of stress and strain and the forces operating in the Earth  
Students will get an overview of the various geological structures and the processes involved in their formation  
Students will understand the concept of plate tectonics and get an overview of the present day plate tectonics

### Expected Course Outcome:

Identify geological structures in field and collect structural data.  
Explain the role of stress in Structural Geology.  
Understand relations between several structural features  
Relate structural geology with plate tectonics.

**Student Learning Outcome:**

Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
June	28/06/2024	29/06/2024	1	<b>Introduction to the course. Outline of the subject and Prospects</b> Introduction to Structural Geology			
July	01/07/2024	06/07/24	4	Introduction to Structural Geology Aims and Objectives Stress and Strain		Chalk and Board, Hands on	
July	08/07/2024	13/07/24	4	Mechanical behaviour of the rocks		Chalk and Board, Hands on	
July	15/07/2024	20/07/24	4	Folds: Parts of folds, Nomenclature of folds		Chalk and Board, Field photographs	
July	22/07/2024	27/07/24	4	Folding, Determination of top of beds		Chalk and Board, Field photographs	

July	29/07/2024	03/08/24	4	joints, failure by rupture and faults		Chalk and Board, Demonstrations, GIFS, Models	
July	05/08/2024	10/08/24	4	faults		Chalk and Board, Demonstrations, GIFS, Models	
				Unconformities			
August	12/08/2024	17/08/24	4	foliations		Chalk and Board, Demonstrations, GIFS, Models	
August	19/08/2024	24/08/24	4	Lineations		Chalk and Board, Demonstrations, GIFS, Models	
August	26/08/2024	31/08/24	4	Earth's structure and Introduction to Continental drift		Chalk and Board, Demonstrations, GIFS, Models	
September	02/09/2024	07/09/24	4	Plate tectonics		Chalk and Board, Demonstrations, GIFS, Models	
September	09/09/2024	14/09/24	4	Break			
September	16/09/2024	21/09/24	4	Plate tectonics		Chalk and Board, Demonstrations, GIFS, Models	

September	23/09/2024	28/09/24	4	Plate tectonics		Chalk and Board, Demonstrations, GIFS, Models	
September/ October	30/09/2024	05/10/24	4	Non tectonic causes of folding, outcrop patterns, strike and dip as concept		Chalk and Board, Demonstrations, GIFS, Models	
October	07/10/2024	12/10/24	4	Advanced stress and strain		Chalk and Board, Demonstrations, GIFS, Models	
October	14/10/2024	19/10/24	4	Advanced stress and strain		Chalk and Board	
October	21/10/2024	22/10/2024	2				

**\*Assessment Rubrics**

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

