

Lecture Plan							
Name of the College: Government College of Arts, Science and Commerce. Sanquelim - Goa							
Name of Faculty: Shritesh Mhapsekar				Subject: Geology			
Paper code: GEO-204, Geotectonics and Associated Rocks				Program: BSc		Division:	
Academic year: 2024-25				Semester: IV		Total Lectures: 15	
Course Objectives: 1. Describe the earth’s internal processes in regards to magnetism, gravity and high-pressure transformations. CL2 2. Explain the process of plate tectonics and plate interactions. CL2 3. Illustrate the causes of earthquakes and volcanoes. CL2 4. Identify various rock types associated with plate boundaries. CL2							
Course Outcome: 1. Explain the variation of magnetism and gravity on the surface of the Earth. CL2 2. Identify plate boundaries. CL2 3. Calculate the Richter magnitude and Mercalli intensity values of an earthquake. CL3 4. Classify various rock types. CL3							
Student Learning Outcome:							
Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
December, 2024	December 9, 2024	December 15, 2024	1	Introduction to the Geotectonics			1. Billings, M. P. (1954). Structural Geology. 2. Duff, P. M. D. (1993). Holmes’ Principles of Physical

	December 16, 2024	December 22, 2024	1	scope			Geology. Springer. 3. Ghosh, S. (2013). Structural Geology: fundamentals and modern developments. Elsevier
January, 2025	December 30, 2024	January 5, 2025	1	Seismic exploration of the Earth's interior, high pressure transformations			
	January 6, 2025	January 12, 2025	1	Seismic exploration of the Earth's interior, high pressure transformations			
	January 13, 2025	January 19, 2025	1	Earth's Gravity: acceleration due to gravity			
	January 20, 2025	January 26, 2025	1	Earth's Gravity: acceleration due to gravity			
	January 27, 2025	February 2, 2025	1	change with latitude and altitude			
February, 2025	February 3, 2025	February 9, 2025	1	mass and density; Isostasy			
	February 10, 2025	February 16, 2025	1	Earth's Magnetism, Earth as a magnet			
	February 17, 2025	February 23, 2025	1	Origin of magnetic field			
	February 24, 2025	March 2, 2025	1	lines of force			
March, 2025	March 3, 2025	March 9, 2025	1	lines of force & inclination and declination			
	March 10, 2025	March 16,	1	inclination and			

		2025		declination			
	March 17, 2025	March 23, 2025	1	geomagnetic axis and geographic axis			
	March 24, 2025	March 30, 2025	1	geomagnetic axis and geographic axis			
April, 2025	March 31, 2025	April 6, 2025	1	Revision			
	April 7, 2025	April 13, 2025	1	Revision			
Assessment Rubrics	Component	Max Marks					
	ISA 1						
	ISA 2						
	Practical						
	Project						
	Semester End Exam						