## Semester Lecture Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim, Goa-India								
Name of Faculty:     Delia Cardozo     Subject:     Geology								
Paper code: GEO 204 Geotectonics and Associated Rocks			Program/Course: SY B.Sc. Division:					
Academic year	r: 2024- 2025			Semester: IV		<b>Total Lectur</b>	Total Lectures: 30	
Course Objectives: <ol> <li>Describe the earth's internal processes in regards to magnetism, gravity and high-pressure transformations. CL2</li> <li>Explain the process of plate tectonics and plate interactions. CL2</li> <li>Illustrate the causes of earthquakes and volcanoes. CL2</li> <li>Identify various rock types associated with plate boundaries. CL2</li> </ol> Course Learning Outcome: <ol> <li>Explain the variation of magnetism and gravity on the surface of the Earth. CL2</li> <li>Identify plate boundaries. CL2</li> <li>Identify plate boundaries. CL2</li> <li>Calculate the Richter magnitude and Mercalli intensity values of an earthquake. CL3</li> <li>Classify various rock types. CL3</li> </ol>								
Month	Lectures From:	Lectures To:	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books	
December	9/12/2025	14/12/2024	02	Introduction to the paper Earthquakes: Introduction	-	Smartboard, PPT, Videos, Google maps, Flipped	1. Monroe, J. S., &Wicander,	
	16/12/2025	23/12/2024	02	Seismic waves; Elastic Rebound		Classroom,	changing	

				theory; Anatomy of		Quiz,	Earth:
				an Earthquake		Discussions	Exploring
				Magnitude			Geology and
January	02/01/2025	04/01/2025		(Richter Scale),			Evolution.
				Intensity (Mercalli			Brooks Cole
			02	Scale)			Diooks cole.
				Types of			
				Earthquakes			
				(shallow,			2. Plummer,
		11/01/2025		intermediate,			C. C.,
	06/01/2025			deep); Finding the			Carlson. D.
	00/01/2025			Epicentre:			Н &
				Triangulation			McGeary D
				method			(2007)
				Tsunamis: mode of			(2007).
			02	origin			Physical
				Continental Drift:			Geology.
		18/01/2025		Geographic,			
				geological,			
				paleontological,			3 Drass E &
	12/01/2025			paleoclimatic and			$S. 11055, 1^{\circ}, \infty$
	13/01/2025			paleomagnetic			Slever, R.
				evidence.	-		(2001).
				Sea Floor			Understanding
				spreading and vine			Earth.
			02	& Mattnews			
			02	nypotnesis.		-	
				Introduction to	ISA:		4 Caplean of
	20/01/2025	25/01/2025		Plate tectonics	Assignment-		4. Geology of
					Rocks		Volumes
					associated		volumes
				Lithospheric plates	with plate		
			02		poundaries		

				Plate boundaries	
				(Subduction zones,	
		01/02/2025		mid-ocean ridges,	
	27/01/2025			and transform	
				faults) and plate	
				interactions, plate	
			02	motions.	
				Mantle convection	
				and its role in plate	
Fahmuany	03/02/2025	08/02/2025		tectonics.	
repruary	03/02/2025			Growth and	
				assembly of	
			02	continents,	
				Supercontinent	
	10/02/2025	15/02/2025		cycles.	
	10/02/2020		02	Rise of Himalayas.	
		22/02/2025		Volcanoes: Types	
	17/02/2025	22/02/2025		and distribution,	
			02	Ring of fire.	
			02		
	24/02/2025	01/03/2025		Petrotectonic	
			01	assemblages:	
Marah	03/03/2025	08/03/2025		Basalt (MORB,	
	03/03/2023		02	OIB, Tholeiitic),	
	4.0.40.0.2.2.2.2	15/03/2025		Granite (S-I-A-M	
	10/03/2025	10,00/2020	02	types)	
			04		
	17/03/2025	22/03/2025		Bluoshists	
	1//03/2023		02	Cropulitos	
			04	Creangehists	
	24/02/2025	29/03/2025		Greenschists, Markla Slata	
	24/03/2023		02	Iviarbie, State,	
			02	Gneiss,	
April	31/03/2025	05/04/2025			
Артп			01		

07/04/2025	11/04/2025		Sandstone, Limestone, flysch		
		02	and molasse.		

\* Assessment Rubrics

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