

		Semester Lecture Plan					
Name of the College: Government College of Arts Science & Commerce, Sanquelim Goa							
Name of Faculty: Mr. Brahmanand Sawant					Subject: Geology		
Paper code: GEO221 Engineering Geology				Program/Course: S.Y. B.Sc.		Division:	
Academic year: 2024 - 2025				Semester: IV		Total Lectures: 30	
Course Objectives: 1) To describe the engineering properties of rocks 2) To get acquainted with various tests carried out on rock samples 3) To carry out geological investigations for selection of sites for engineering projects 4) To suggest remedial measures for the improvement of sites							
Expected Course Outcome: This Course will help the students: 1. To identify and select the appropriate sites for engineering projects 2. Will be able to suggest remedial measures for the improvement of site							
Student Learning Outcome 1) Students will be able to suggest the suitability of sites for various engineering projects 2) They can determine the engineering properties of rocks performing various tests 3) They can prepare a report giving suggestions for the improvement of site if not suitable for construction							
Month	Lectures From: To:		No. of lectures	Topic, Subtopic to be covered	Exercise /Assignment	ICT Tools	Reference books

DEC 2024				Introduction to Dams	Reading material shared	Power point presentation	1.Engineering & General Geology by Parbin Singh 2. Textbook of Engineering Geology by N Chenna Kesavulu
	9-12-2024	14-12-2024	2	Function of a dam		Power point presentation	
January	16-12-2024	21-12-2024	2	How to select a Dam site	Reading material shared	Power point presentation	
				Classification of Dams		Power point presentation	

	06-01-2025	11-01-2025	02	Types of Dams			
				Dams in India	Reading material shared	Power point presentation	
	13-01-2025	18-01-2025	2	Gravity Dam		Power point presentation	
				Arch Dam		Power point presentation	
	20-01-2025	25-01-2025	02	Butress Dam	Reading material shared	Power point presentation	Engineering & General Geology by Parbin Singh 2. Textbook of Engineering Geology by N Chenna Kesavulu
				Composite Dam		Power point presentation	
						Power point presentation	
Jan/Feb							

	27-01-2025	1-02-2025					1 Engineering & General Geology by Parbin Singh
				Embankment Dam		Power Point Presentation	
				Forces acting on a Dam		Power Point Presentation	
	3-02-2025	08-02-2025		Parts of Dams	Reading material shared	Power Point Presentation	2. Textbook of Engineering Geology by N Chenna Kesavulu
				Induced Seismicity			
						Power Point Presentation	
Feb	10-02-2025	15-02-2025	02				1 Engineering & General Geology by Parbin Singh
				Suitability of Rocks	Literature review	Power Point Presentation	
	17-02-2025	22-02-2025	02	Suitability of igneous rocks		Power Point Presentation	
				Suitability of sedimentary rocks		Power Point Presentation	
				Suitability of metamorphic rocks	Literature review	Power Point Presentation	
	24-02-2025	1-03-2025	02			Power Point Presentation	2. Textbook of Engineering Geology by N Chenna Kesavulu
				Effect of intrusion on stability of dam		Power Point Presentation	

				Effect of weathering on dams		Power Point Presentation	
	3-3-2025	08-03-2025	02	Effect of rock structures on stability of a dam		Power Point Presentation	Engineering & General Geology by Parbin Singh
				Tunnels	Literature review	Power Point Presentation	2. Textbook of Engineering Geology by N Chenna Kesavulu
				Types of tunnels		Power Point Presentation	
	10-03-2025	15-03-2025	02	Hard ground tunneling		Power Point Presentation	
				Soft ground Tunneling		Power Point Presentation	
	17-03-2025	22-3-2025	02	Effect of structures on stability of tunnel		Power Point Presentation	Engineering & General Geology by Parbin Singh
							2. Textbook of Engineering Geology by N Chenna Kesavulu
				Roads and Highways	Literature review	Power Point Presentation	
				Effect of structures on Road stability		Power Point Presentation	
March	24-3-2025	29-3-2025	02	Bridges		Power Point Presentation	
				Types of Bridges		Power Point Presentation	
				RQD		Power Point Presentation	

March	31-3-2025	5-3-2025	02	Improvement in sites: Grouting, Backfilling	Literature review	Power Point Presentation	
				Revision		Power Point Presentation	
				Revision		Power Point Presentation	
	7-04-2025	12-04-2025	02	Revision			
				Revision			

COMPONENT	MAXIMUM MARKS
ISA I	07
ISA II	08
PRACTICAL	25
SEMESTER END EXAM	60
TOTAL	100