

Lecture Plan

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

Name of Faculty: Diksha Karapurkar

Subject: Geology

Paper code: GEO 323:
Introduction to Environmental Geology

Program: T.Y.B.Sc.

Division: -

Academic year: 2025 - 2026

Semester: VI

Total Lectures: 15

Course Objectives: The objectives of this course are to:

1. Identify the geological processes that cause natural hazards. CL2
2. Discuss the impact of natural hazards on the various components of the environment. CL2
3. Explain preventive measures and techniques for the mitigation of natural, and environmental pollution. CL2

Course Outcomes:

At the end of the course, the student will be able to:

1. Analyze data for identification of Natural hazards and their impact on life and property. CL4
2. Recommend sustainable solutions to mitigate the impact of natural hazards. CL4
3. Demarcate geological hazards on the outline map of India. CL2
4. Prepare a geological report of a site affected by geological hazard. CL4

Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
December 2025	01-12-2025	06-12-2025	1	Fundamental concepts of Environmental geology- scope, aims and objectives.	None	Presentation; Chalk and Board; Kahoot Quizzes	1. Keller, E. A. (2012). Introduction to environmental geology. Pearson College Division.
	08-12-2025	13-12-2025	1	Origin, Impact and mitigation measures for Volcanic hazards	Locating world distributions of volcanic eruptions		2. Montgomery, C. W. (2013).
	15-12-2025	20-12-2025	1	Origin, Impact and mitigation measures for Seismic hazards	Locating world distributions of >6 magnitude on Richter Scale		

	22-12-2025	23-12-2025	0				Environmental geology. McGraw-Hill Education.
January 2026	02-01-2025	03-01-2026	1	Origin, Impact and mitigation measures for Cyclones/Hurricanes	Locating regions susceptible to cyclones/Hurricanes around the world		3. Botkin, D. B., & Keller, E. A. (2011). Environmental science: Earth as a living planet. Wiley.
	05-01-2026	10-01-2026	1	Origin, Impact and mitigation measures for Coastal Flooding	Locating regions of coastal flooding		
	12-01-2026	17-01-2026	1	<i>Intra Semester Assessment I (Assignment)</i>			
	19-01-2026	24-01-2026	1	Origin, Impact and mitigation measures for Coastal erosion	Locationg regions of high coastal erosion along the coasts of India		
	26-01-2026	31-01-2026	1	Origin, Impact and mitigation measures for Tsunamis	Locationg regions of past high risk tsunami events		
February 2026	02-02-2026	07-02-2026	1	<i>Intra Semester Assessment II (Written)</i>			4. K. S. Valdiya (1987) Environmental Geology-Ecology, Resource and Hazard Management. McGraw-Hill Education (India) Private Limited.
	09-02-2026	14-02-2026	1	Water quality parameters: Biological, Physical and Chemical	Preparing a table of water quality parameters and their permissible limits for consumtion		
	16-02-2026	21-02-2026	1	Major pollutants	Locating regions of water contaminants and their classifications		
	23-02-2026	28-02-2026	1	Sources of water pollution	Drawing an illustration of sources of water pollution		
March 2026	02-03-2026	07-03-2026	1	Causes and effects of water pollution			
	09-03-2026	14-03-2026	1	Remedial measures for water Pollution			

	16-03-2026	21-03-2026	1	Floods	Locating regions of frequent flooding		
	23-03-2026	28-03-2026	1	Water Conservation.	Diagrams of water conservation structures		
	30-03-2026	31-04-2026	1	<i>Revision</i>			
	Total Lectures		17				

* Assessment Rubrics

Component	Max Marks
ISA 1	05
ISA 2	05