

Semester Lecture Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim Goa							
Name of Faculty: Mr. Stephen Fernandes			Subject: Natural Hazards and Disaster Risk Reduction (MINOR)				
Paper code: GOS111			Program/Course: F.Y.B.Sc.		Division:		
Academic year: 2026- 2027			Semester: I		Total Lectures: 30		
Course Objectives: The Course aims to: • Provide an understanding of the definitions and concepts related to natural hazards and disaster risk reduction. • Introduce disaster risk reduction strategies and frameworks used to mitigate and prevent the impacts of natural hazards. • Develop knowledge and skills in identifying natural hazards and conducting hazard and risk assessments. • Understand vulnerability assessment and mapping techniques to identify areas at risk							
Student Learning Outcome: • Define and explain key concepts related to natural hazards and disaster risk reduction. • Understand the frameworks and strategies used in disaster risk reduction to mitigate and prevent the impacts of natural hazards. • Identify natural hazards and conduct hazard and risk assessments using appropriate methodologies. • Apply principles of emergency planning and management in the context of disaster risk reduction and develop strategies for capacity building and training to enhance preparedness and response capabilities.							
Month	Lectures From: To:		No. of lectures allotted	Topic, Subtopic to be covered	Exercises/ Assignment	ICT Tools	Reference books
June	22/06/2026	27/06/2026	02	Introduction to Natural Hazards and Disaster Risk Reduction	Describe the concepts related to Disaster, Hazrds etc	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena

June	29/06/2026	04/07/2026	02	Definitions and concepts	Describe the concepts related to Disaster, Hazrds etc	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
July	06/07/2026	11/07/2026	02	Classification of natural hazards	Classify various natural hazards in India	Power point presentation, White Board Youtube Videos	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
July	13/07/2026	18/07/2026	02	Historical and contemporary examples of natural disasters	List out the disasters happened in 2025 in India	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
July	20/07/2026	25/07/2026	02	The economic, social, and environmental impact of disasters	Case study of impacts Himalayan cloud burst on economy and environment	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
July	27/07/2026	01/08/2026	02	The economic, social, and environmental impact of disasters	Case study of impacts Himalayan cloud burst on Society	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
August	03/08/2026	08/08/2026	02	Overview of disaster risk reduction strategies	Suggest various steps in disaster management	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
August	10/08/2026	15/08/2026	01	Disaster risk reduction frameworks	Discuss effectiveness of risk reduction on	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena

					management of disasters		
August	17/08/2026	22/08/2026	02	Understanding Hazards and Risk Assessment	Define the concept of Hazard and risk	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
September	24/08/2026	29/08/2026	02	Identification of natural hazards	Identify the hazards in the state of Goa	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
September	31/08/2026	05/09/2026	02	Exposure and loss assessment	Case study of Cloud burst and landslide and loss assessment	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
September	07/09/2026	12/09/2026	02	Vulnerability assessment and mapping	Mapping of hazards/Disasters in Goa	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
September	21/09/2026	26/09/2026	02	Hazard mitigation	Suggest mitigation measures to reduce natural hazards	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
October	28/09/2026	03/10/2026	01	Hazard prevention strategies	Suggest mitigation measures to reduce natural hazards	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
October	05/10/2026	10/10/2026	02	Overview of Pre-disaster Measures	Case study on Mitigation strategies for reducing effects of disasters	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena

October	12/10/2026	14/10/2026	02	Revision	Question Paper Discussion	Power point presentation, White Board	Environmental Sciences by S.C. Santra, Environmental Geography by H.M. Saxena
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Assessment Rubrics

Component	Max Marks
ISA 1	10
ISA 2	10
ISA 3	10
Semester End Exam	80