

Semester Lecture Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim Goa							
Name of Faculty: Mr. Stephen Fernandes			Subject: Ecology, Environment and Sustainable Development (MINOR)				
Paper code: GOS211			Program/Course: S.Y.B.Sc			Division:	
Academic year: 2025- 2026			Semester: I			Total Lectures: 30	
Course Objectives: The Course aims to: 1. To explain the fundamental ecological concepts such as ecosystems, biodiversity, ecological niche and the interdependence of living organisms and their environment 2. To give an overview of sustainable development from a geographical perspective 3. To discuss the importance of biodiversity conservation for ecological stability 4. To covers key concepts and themes in sustainable development, such as economic growth, environmental protection, social equity, and political governance							
Student Learning Outcome: 1. Analyze the causes and consequences of environmental degradation 2. Understand the principles of balancing economic, social, and environmental dimensions for sustainability. 3. Evaluate the challenges and opportunities of sustainable development in different regions and countries 4. Develop critical thinking and analytical skills to address sustainability issues							
Month	Lectures From: To:		No. of lectures allotted	Topic, Subtopic to be covered	Exercises/ Assignment	ICT Tools	Reference books
June	23/06/2025	28/06/2025	02	Ecology: Meaning, Principles, Objectives & Scope	Describe the concepts of Ecology	Power point presentation, White Board	Principles of Ecology by P. D. Sharma, Environmental Biology by Verma, Agarwal

June	30/06/2025	05/07/2025	02	Environment: Meaning, Nature & Scope	Discuss the concept of environment	Power point presentation, White Board	Principles of Ecology by P. D. Sharma,
July	07/07/2025	12/07/2025	02	Ecology and Geography, Environment and Geography	Relate Ecology and Geography	Power point presentation, White Board Youtube Videos	Principles of Ecology by P. D. Sharma
July	14/07/2025	19/07/2025	02	Concept of carrying capacity	Case study of carrying capacity of Himalayan Ecosystem	Power point presentation, White Board	Principles of Ecology by P. D. Sharma
July	21/07/2025	26/07/2025	02	Assimilative capacity and ecological foot prints	Calculate the ecological footprint of people in the house	Power point presentation, White Board	Principles of Ecology by P. D. Sharma
July	28/07/2025	02/08/2025	02	Ecosystem: Concept, Components, Types, Structure, Functions and Stability	Identify the ecosystems present in India	Power point presentation, White Board	Principles of Ecology by P. D. Sharma,
August	04/08/2025	09/08/2025	02	Flow of energy and matter, Ecological niche, Keystone species, Ecotypes	Explain the concepts of Ecological Niche, Habitat, Keystone species	Power point presentation, White Board	Principles of Ecology by P. D. Sharma,
August	11/08/2025	16/08/2025	01	Plant Indicators, Ecological Adaptation.	List of the plants which are indicators of environmental conditions	Power point presentation, White Board	Principles of Ecology by P. D. Sharma,

August	18/08/2025	25/08/2025	02	Ecological Genetics and Behavior Ecology.	Give examples of Animal behaviors in the nature and its link to genetics	Power point presentation, White Board	Environmental Biology by Verma, Agarwal
September	01/09/2025	06/09/2025	02	Biodiversity and its conservation	Suggest various ways to conserve biodiversity	Power point presentation, White Board	Environmental Biology by Verma, Agarwal
September	08/09/2025	13/09/2025	02	Definition, Principles and Scope of sustainability,	History of Sustainable Development	Power point presentation, White Board	Environmental Geography by H.M. Saxena
September	15/09/2025	20/09/2025	02	Strategies for promoting sustainable development, challenges and opportunities	Discuss the ways to achieve sustainable development	Power point presentation, White Board	Environmental Geography by H.M. Saxena
September	22/09/2025	27/09/2025	02	The Millennium Development Goals	List out the millennial Development Goals	Power point presentation, White Board	Environmental Geography by H.M. Saxena
October	29/09/2025	04/10/2025	01	Sustainable Development Goals: National Strategies and International Experiences	Implementing Sustainable Development Goals across the Globe	Power point presentation, White Board	Environmental Geography by H.M. Saxena
October	06/10/2025	11/10/2025	02	Sustainable Energy Resources: Renewable energy for sustainable development	Awareness about Green Energy	Power point presentation, White Board	Environmental Geography by H.M. Saxena
October	13/10/2025	18/10/2025	02	Natural resources and sustainable development.	Economic activities and its effects on Natural Resources	Power point presentation, White Board	Environmental Geography by H.M. Saxena

Assessment Rubrics

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