

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: 2026- 2027			Semester: III		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	22/06/2026	27/06/2026	02	Ecology: Meaning, Principles, Objectives 			

June	29/06/2026	04/07/2026	02	Environment: Meaning, Nature & Scope	Discuss the concept of environment	Power point presentation, White Board	Principles of Ecology by P. D. Sharma,
July	06/07/2026	11/07/2026	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	13/07/2026	18/07/2026	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	20/07/2026	25/07/2026	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	27/07/2026	01/08/2026	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	03/08/2026	08/08/2026	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	10/08/2026	15/08/2026	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	17/08/2026	22/08/2026	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	24/08/2026	29/08/2026	02	Biodiversity and its conservation	Suggest various ways to conserve biodiversity	Power point presentation, White Board	Environmental Biology by Verma, Agarwal
September	31/08/2026	05/09/2026	02	Definition, Principles and Scope of sustainability,	History of Sustainable Development	Power point presentation, White Board	Environmental Geography by H.M. Saxena
September	07/09/2026	12/09/2026	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	21/09/2026	26/09/2026	02	The Millennium Development Goals	List out the millennial Development Goals	Power point presentation, White Board	Environmental Geography by H.M. Saxena
October	28/09/2026	03/10/2026	02	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	05/10/2026	10/10/2026	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	12/10/2026	14/10/2026	01	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