

			Semester Plan						
	Name of the college: Government College of Arts, Science and commerce, Sanquelim- Goa.								
	Name of Faculty: Mr. Gandesh Gaonkar				Subject: Environmental Studies I				
	Paper code: VAC-100				Program: F.Y.B. A		Division: A		
	Academic year: 2026- 2027				Semester: I		Total Lectures: 30		
	Course Objectives: Sensitize students to environmental conservation and sustainable use of resources.								
	Expected Course Outcome: Students will have the ability to 1. Distinguish between renewable and non-renewable resources 2. Understand different ways to manage resources sustainability 3. Appreciate the value of bio-diversity and its management								
	Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books	
	July	04-07-2026	07-07-2026	02	Definition, scope and importance Need for public awareness.	Students will visit a nearby public place (park, market, village, or beach) and	Smart Board - Power Point Presentation	Bharucha E.: Textbook of Environmental Studies. Orient BlackSwan	

						observe environmental conditions.			
	July	11-07-2026	14-07-2026	02	Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems. Forest resources: Use and over-exploitation, deforestation, case studies.	Students will identify renewable and non-renewable resources available in their locality.	Smart Board - Power Point Presentation	Bharucha E.: Textbook of Environmental Studies. Orient BlackSwan.	
	July	18-07-2026	21-07-2026	02	Timber extraction, mining, dams and their effects on forest and tribal people. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.	Students will prepare a comparison table showing the advantages and disadvantages of timber extraction, mining, etc.	Smart Board - Power Point Presentation	Cunningham W.P., Cooper T.H., Gorani E. & Hepworth M.T. (2001): Environmental Encyclopaedia, Mumbai, Jaico.	
	July-August	25-07-2026	01-08-2026	03	Mineral resources: Use and exploitation, environmental effects of extracting	Students will collect	Smart Board - Power Point Presentation	Chatwal G.R. & Sharma H. (2005): A Textbook of Environmental	

					and using mineral resources, case studies. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.	newspaper articles or online reports related to mining, food security, fertilizer use, or pesticide pollution.		Studies, Mumbai, Himalaya	
	August	04-08-2026	08-08-2026	02	Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.	Students will participate in a group discussion on the topic "Renewable Energy: The Future of Sustainable Development." Each group will present the benefits, limitations, and applications of different	Smart Board - Power Point Presentation	Chatwal G.R. & Sharma H. (2005: A Textbook of Environmental Studies, Mumbai, Himalaya.	

						renewable energy sources.			
	August	11-08-2026	22-08-2026	04	Land resources: Land as a resource, land degradation, man-induced landslides, soil erosion and desertification. • Role of an individual in conservation of natural resources. • Equitable use of resources for sustainable lifestyles.	Students will prepare a list of simple practices that individuals can adopt for the conservation of natural resources and sustainable use of land.	Smart Board - Power Point Presentation	Chatwal G.R. & Sharma H. (2005): A Textbook of Environmental Studies, Mumbai, Himalaya	
	August	25-08-2026	29-08-2026	02	Ecosystems Concept of an ecosystem. Structure and function of an ecosystem. Producers, consumers and decomposers.	Students will identify the biotic and abiotic components of a selected ecosystem (forest, pond, grassland, or garden).	Smart Board - Power Point Presentation	Odum E.P. (1971): Fundamentals of Ecology, Philadelphia, W.B. Saunders.	
	September	01-09-2026	08-09-2026	03	Energy flow in the ecosystem. Ecological succession. Food		Smart Board - Power Point Presentation	Odum E.P. (1971): Fundamentals of Ecology,	

					chains, food webs and ecological pyramids.			Philadelphia, W.B. Saunders	
	September	12-09-2026	26-09-2026	03	Introduction, types, characteristic features, structure and function of the following ecosystem: - a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)	Students will collect photographs or images of different ecosystems and prepare a classroom presentation explaining their structure, functions, and ecological significance.	Smart Board - Power Point Presentation	Odum E.P. (1971): Fundamentals of Ecology, Philadelphia, W.B. Saunders	
	September -October	29-09-2026	03-10-2026	03	Biodiversity and its conservation Introduction – Definition: genetic, species and ecosystem diversity. Biogeographical classification of India, Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values, Biodiversity	Students will identify the major biogeographical zones of India on an outline map and briefly describe the biodiversity found in each region.	Smart Board - Power Point Presentation	Wagner K.D. (1998) Environmental Management, Philadelphia, W.B. Saunders Magazines	

[illegible]