



KADI SARVA VISHWAVIDYALAYA

**KADI SARVA
VISHWAVIDYALAYA,
GANDHINAGAR**



**B.Sc. Curriculum as Per NEP
Value Added Course for Semester 2**

W.E.F. June 2023



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Value Added Courses

VAC201-1C ENVIRONMENTAL STUDIES

Rationale:

To focus on Environmental Science that is an interdisciplinary subject which appeals on the content of several disciplines to offer a balanced scientific and holistic perspective of environmental issues. It will provide knowledge, skills, and attitudes to identify, prevent, and solve environmental problems and thereby prepare students for ultimate careers in diverse fields of relevance to environmental management and to sustainable development of the nation.

Learning Outcomes:

- Students will be able to:
- Stimulate interest in the Environment.
- Understand the interdisciplinary and holistic nature of the environment.
- Develop knowledge and understanding of Environmental issues and principles and the ability to apply Environmental Management.
- Provide an understanding of interactions between people and the Environment.
- Increase an awareness of the importance of living in harmony with the Environment.
- Develop an understanding of how natural resources and the environment affect the quality of life and the quest for sustainable development of the nation.

Teaching and Evaluation Scheme:

Subject Code	Subject Title	Teaching Scheme		Credits	Examination Scheme			Total Marks
		Theory hrs Per Week	Practical hrs Per Week		Hrs.	Max Marks		
						Mid Term	End Term	
<u>VAC201-1C</u>	Environmental Studies	2	0	2	2	25	25	50

Course Content:

Unit I

[Weightage=50% approx., Lectures=15]

Ecology and Environment: Definition, scope, and basic principles of ecology and environment, Natural Resources – Renewable and Non-renewable resources, Current Environmental issues – climate change, Global warming, Acid rain, Ozone layer depletion, Pollution - Air, Water, Soil, Marine, Thermal, Noise pollution - causes and effects.



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Unit II

[Weightage=50% approx., Lectures=15]

Ecosystem: Basic concepts, components of the Ecosystem, Trophic levels, food chains and food web, Ecological pyramids, ecosystem functions, Energy flow in ecological systems, energy efficiencies. **Biogeochemical Cycles:** Importance, gaseous and sedimentary cycles. Carbon, Nitrogen, Phosphorus, Hydrogen, and Sulphur Cycles.

Reference Book:

- Basics of Environmental Studies, 4th Edition, B. R. Shah, Snehal Popli, Mahajan Publishing House.