



SILVER OAK UNIVERSITY

Silver Oak Institute of Science

Bachelor of Science Physics

Course Name: Environmental Studies

Course Code: 2050003182

Semester: 2nd

Prerequisite:

1. Foundational knowledge of ecological principles and environmental issues.

Course Objectives:

1. Equip students with knowledge about key environmental concepts, including ecosystems, biodiversity and environmental pollution.
2. Enable students to critically analyze the impact of human activities on the environment and explore sustainable solutions.
3. Familiarize students with major environmental movements in India and their role in shaping environmental policy and awareness.

Teaching Scheme:

Teaching Scheme				
L	T	P	Contact Hours	Credit
2	0	0	2	2

Contents:

Unit	Topics	Teaching Hours	% Weightage
1	The Environment The Atmosphere, the Hydrosphere, the Lithosphere and the Biosphere, Ecology & Eco-system, Biogeochemical Cycles (Carbon Cycle & Nitrogen Cycle), Natural Disasters and their Management.	7	25
2	Environment Pollution (i) The Air Pollution (ii) The Water Pollution (iii) The Soil Pollution (iv) The Noise Pollution (v) The Thermal Pollution (vi) The Radiation Pollution	7	25
3	Population Ecology Individuals, Community Population and Control methods of population, Food web, soil erosion and sedimentation, wasteland reclamation, climate change, global warming, acid rain, ozone layer depletion, resettlement and rehabilitation of people. (a) Communicable diseases and their transmission (b) Non-communicable diseases.	7	25
4	Environment Movements in India (a) Environment degradation & sustainable development, Urbanization and its effect on Society, Grass Root Environmental Movements in India, Role of Women, Environmental Movements in Odisha. (a) State Pollution Control Board (b) Central Pollution Control Board.	7	25

Course Outcomes:

Sr. No.	CO Statement	Unit
CO-1	Develop basic understanding of Environment and Ecosystem..	1
CO-2	Describe basics of Environmental pollution.	2
CO-3	Describe basics of Population ecology and diseases.	3
CO-4	Develop better understanding and provide knowledge about Environment movements in India and Pollution control board.	4

Teaching & Learning Methodology:

1. Design Thinking
2. Inquiry based Learning
3. Competency based Learning
4. Conceptual Understanding

Books Recommended: -

1. Suraj Mal, R.B. Singh, "Climate Change, Extreme Events and Disaster Risk", Christian Huggel, Editors.
2. Joachim Monkelbaan. "Governance for the Sustainable Development Goals", Springer International.

List of Open-Source Software/learning website:

1. <http://silveroakuni.ac.in/video-lecture>

CO-PO-PSO Matrix:

CO. No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2
CO-1	2	2	2	2	2	3	3	3	2	2	2	1	
CO-2	2	2	2	2	2	3	3	3	2	2	2	1	
CO-3	2	2	2	2	2	3	3	3	2	2	2	1	
CO-4	2	2	2	2	2	3	3	3	2	2	2	1	