



Shree H. N. Shukla Institute of Pharmaceutical Education & Research

(Affiliated to Gujarat Technological University, Approved by PCI)

Shree H. N. Shukla College Campus, Nr. Lalpari Lake, B/H. Marketing Yard,
Amargadh – Bhichari, Raikot. Mo. 9099063150, 9727753360

B.Pharm SEMESTER: II

Subject Name: Environmental Sciences

Subject Code: BP205TT

Scope: Environmental Sciences is the scientific study of the environmental system and the status of its inherent or induced changes on organisms. It includes not only the study of physical and biological characters of the environment but also the social and cultural factors and the impact of man on environment.

Objectives: Upon completion of the course the student shall be able to

1. Create the awareness about environmental problems among learners.
2. Impart basic knowledge about the environment and its allied problems.
3. Develop an attitude of concern for the environment.
4. Motivate learner to participate in environment protection and environment improvement.
5. Acquire skills to help the concerned individuals in identifying and solving environmental problems.
6. Strive to attain harmony with Nature

Teaching scheme and examination scheme:

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	Theory		Practical	
				External	Internal	External	Internal
3	0	0	3	35	15	0	0

Sr No	Topics	% weightage
1.	The Multidisciplinary nature of environmental studies Natural Resources Renewable and non-renewable resources: Natural resources and associated problems Forest resources; b) Water resources; c) Mineral resources; d) Food resources; e) Energy resources; f) Land resources: Role of an individual in conservation of natural resources	10
2.	Ecosystems: Concept of an ecosystem. Structure and function of an ecosystem. Introduction, types, characteristic features, structure and function of the ecosystems: Forest ecosystem; Grassland ecosystem; Desert ecosystem; Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)	10
3.	Environmental Pollution: Air pollution; Water pollution; Soil pollution	10

Recommended Books (Latest Editions)

1. Y.K. Sing, Environmental Science, New Age International Pvt, Publishers, Bangalore
2. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
3. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380 013, India,



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4. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
5. Clark R.S., Marine Pollution, Clarendon Press Oxford
6. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p
7. De A.K., Environmental Chemistry, Wiley Eastern Ltd.
8. Down of Earth, Centre for Science and Environment

LEARNING OUTCOMES:

UNIT	LEARNING OUTCOME
1	To create the awareness and impart knowledge about environment and its systems.
2	To develop an attitude of concern for the environment.
3	Motivation to participate in environment protection and environment improvement.
4	Acquiring skills to help the concerned individuals in identifying and solving environmental problems and strive to attain harmony in nature.

BOOK LIST:

Sr. no	Book name	Price (Rs.)
1	Y.K. Sing, Environmental Science, New Age International Pvt, Publishers, Bangalore.	340/-
2	Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.	800/-
3	Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380 013, India.	390/-
4	Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p.	3,371/-
5	Clark R.S., Marine Pollution, Clarendon Press Oxford.	1,459/-
6	Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p.	3,905/-
7	De A.K., Environmental Chemistry, Wiley Eastern Ltd.	361/-