

**Binod Bihari Mahto Koyalanchal University, Dhanbad**

**FYUGP \_NEP2020 (from session 2023 onwards)**

**UG Syllabus**

**Value Added Course**

**Semester IV**

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**VAC- 2- Environmental Studies**

**Credit – 2**

**Lectures – 30 Hours**

**FM = 50** [There will be no Internal Examination.]

**PM = 20**

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**Instructions:**

- The paper shall be of 50 marks containing 50 Multiple-Choice questions (MCQ) type.
- Each question shall carry one mark.
- The questions shall be covering the entire syllabus.

**Learning Outcomes:**

After successfully completing this course, the students will be able to:

1. Inculcate a critical thinking and problem solving.
2. Create a pro-environment attitude and a behavioral pattern in student community  
And society.
3. Give importance and priority to create sustainable life style and awareness on various environmental issues.
4. Equip themselves with the ability to apply the acquired knowledge and skills for mitigating the effects of environmental degradation, climate change, pollution, effective waste management etc.
5. Learn ways and means for the conservation and management of biological diversity and biological resources viz. forest and wildlife resources.

*Raman*

*Rupam Modak*  
23/04/2024

UNIT	TOPIC	LECTURES
<b>Unit 1</b>	<b>Understanding the Environment</b>	
1.1	Environment: Concept, Importance and Components	2
1.2	Ecology and Ecosystems: Concept and Definition Types of Ecosystem: Terrestrial (Grassland, Forest & Desert); Aquatic (Lotic & Lentic, Marine); Estuarine.	4
1.3	Structure and Function of Ecosystem: Food Chain, Food Web, Ecological Pyramids and Energy Flow.	4
<b>Unit 2</b>	<b>Environmental Pollution</b>	
2.1	Sources and Types of Pollutants and their impact; Air Pollution: Causes, Consequences and Control Water Pollution: Sources, Consequences and Control Soil Pollution: Cause, Consequences and Control Noise Pollution: Noise Level, Consequences and Control	6
2.2	Global Warming: Causes and Effect; Acid Rain; Green House Gases and Ozone Depletion	2
2.3	Solid Waste Management: Collection, Segregation, Transportation and Disposal; 3 R's	2
<b>Unit 3</b>	<b>Biodiversity and Natural Resources</b>	
3.1	Biodiversity: Concept and Definition	2
3.2	Threats and Conservation of Biodiversity	3
3.3	Biodiversity Hot Spots	2
3.4	Natural Resources: Renewable and Non-renewable Energy Resources	3

*Aunari*

*Rubina Malik*  
*23/04/2024*

### **Suggested Readings**

1. Basu, M. and Xavier, S. 2018. Fundamental of Environmental Studies. Cambridge University Press, Kolkata.
2. Vanramliana et al., 2015. A Text book of Environmental Science. Scientific Book Centre, Guwahati.
3. Daniel, D. C. 2014. Environmental Science. Jones and Bartlett Publishers, London.
4. Prasad, G. 2018. Handbook of Environmental Science. Discovery Publishing House, New Delhi
5. Rajagopalan. 2019. Environmental Studies: From Crisis to Cure. Oxford University Press, New Delhi.
6. Saha, T.K. 2013. Ecology and Environmental Biology. Books & Allied (P) Ltd. Kolkata.
7. Santra, S.C. 2018. Environmental Science. New Central Book Agency (P) Ltd., Kolkata.
8. Sharma, P.D. 2017. Ecology and Environment. (10th Revised Edition). Rastogi Publication, Meerut.
9. Allaby, M. 2019. Basics of Environmental Science, Routledge, London.

Aumari

Rupam Mallik  
23/04/2024