



Integrated Bachelor and Master Programmes in (A Group)  
Semester - II

Course Code	IS02AENV51	Title of the Course	Environmental Studies
Total Credits of the Course	02	Hours per Week	02
Course Objectives:	The Environmental Studies minor supplements other majors to facilitate students' understanding of complex environmental issues from a problem-oriented, interdisciplinary perspective. Students: 1. Appreciate concepts and methods from ecological and physical sciences and their application in environmental problem solving. 2. Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems. 3. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.		

Course Content		
Unit	Description	Weightage* (%)
1.	<b>Natural Resources and their Conservation</b> 2.1 Forest Resources: Uses and overexploitation of forests and consequences of deforestation. 2.2 Water Resources: Use and consequences of over-utilization, concept of rain water harvesting and watershed management, water conflicts. 2.3 Food Resources: Sources of food, food problems- Indian scenario, Impacts of modern agriculture on environment ( Fertilizer - pesticide problem, water logging and salinity), Organic farming. 2.4 Energy Resources: Renewable and Non-Renewable energy sources, Growing energy needs and alternate energy sources. 2.5 Land Resources: Global land use patterns, Soil erosion, Desertification, Wasteland Reclamation.	50%
2.	<b>Environment and Human health</b> 2.1 Human population growth and Family Welfare Programs. 2.2 Common diseases: Air borne diseases (Chicken Pox, Tuberculosis, Influenza, Meningitis), Water and food borne diseases (Cholera, Diarrhoea, Hepatitis, Malaria, Salmonellosis). 2.3 HIV/AIDS: Symptoms, causes, effect and control measures. 2.4 Drug addiction: Causes, symptoms and prevention; Drug abuse in India. 2.5 Role of IT in environment and human health.	50%





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Teaching-Learning Methodology	Classroom interactions Multimedia presentation Chart/model presentation Student seminar and unit test, quiz etc Question bank circulation Students assignments Student counselling for any problem of subject understanding Student-Teacher interaction on social media platform for any query (MS team, Google classroom, email, etc)
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Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1	UNIVERSITY EXAMINATION(B.Sc.)	100%

Course Outcomes: The course will empower the undergraduate students by:	
1.	Gaining in-depth knowledge on natural processes that sustain life and govern economy
2.	Predicting the consequences of human actions on the web of life, global economy and quality of human life.
3.	Acquiring values and attitudes towards understanding complex environmental economic-social challenges, and participating actively in solving current environmental problems and preventing the future ones.
4.	Adopting sustainability as a practice in life, society and industry

Suggested References:	
Sr. No.	References
1.	Odum, E. P. (2005). Fundamentals of ecology. Cengage Learning India Pvt. Ltd., New Delhi. 5th edition.
2.	Singh, J. S., Singh, S. P., Gupta, S. (2006). Ecology Environment and Resource Conservation. Anamaya Publications, New Delhi, India.





3.	Sharma, P. D. Ecology and Environment. Rastogi Publications, Meerut, India. 13th edition.
4.	Erach Bharucha ,Textbook for Environmental Studies
5.	Park's Text book of preventive and social medicine(25 <sup>th</sup> edition)

On-line resources to be used if available as refe

On-line Resources

Shodhganga

<https://www.khanacademy.org/science/environmental>

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