

Semester - I AECC I: ENVIRONMENTAL STUDIES							
Semester	Course Code	Course Name	Category	L	T	P	Credits
I	26CEU1AA	ENVIRONMENTAL STUDIES	AECC	24	-	-	2

Preamble	This course has been designed for students to learn and understand • Multi-disciplinary aspects of environmental studies • Importance to conserve the biodiversity • Causes of pollution and its control.
Prerequisite	The basics of environmental components

Course Outcomes (Cos)		
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	Understand the importance of natural resources in a systematic way.	K2
CO2	Interpret relationship between biodiversity and ecosystem functions.	K3
CO3	Explain the biodiversity and its conservation.	K3
CO4	Examine the effects, cause and control of air, water, soil and noise pollution etc.,	K4
CO5	Evaluate the social issues and the environment act.	K5

Mapping with Program Outcomes:					
Cos/ POs	PO1	PO2	PO3	PO4	PO5
CO1	M	M	S	M	M
CO2	M	S	M	M	S
CO3	S	M	M	S	M
CO4	M	S	M	M	M
CO5	S	M	S	S	S

Syllabus

Unit	Content	Hrs	Resources
I	Introduction to environmental studies & Natural resources Definition, scope and importance, Need for public awareness. Natural Resources: Forest resources -Deforestation- Water resources - Over utilization of water-Land resources - Land degradation- Role of an individual in conservation of natural resources. Energy resources- Renewable (Solar, wind, Tidal, Biomass and Geothermal) and non-renewable (Petroleum, Coal, LPG and Natural gas) resources. Sustainable development goal for safe life style.	5	Text Book
II	Ecosystems Concept of an ecosystem - Structure and function of an ecosystem. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of Forest ecosystem - Grassland ecosystem - Desert ecosystem - Aquatic ecosystems.	5	Text Book
III	Biodiversity and Conservation Genetic, species and ecosystem diversity - Biogeographical classification of India. Biodiversity at global - National and local levels. India as a mega diversity nation - Hot-spots of biodiversity - Threats to biodiversity - Endangered and endemic species of India. In-situ and Ex-situ conservation of biodiversity.	5	Text Book
IV	Environmental Pollution and Disaster management Causes, effects and control measures of - Air - Water - Soil - Noise and E-pollution. Nuclear hazards and human health risks. Disaster management: floods, earthquake, cyclone and landslides.	5	Text Book
V	Social Issues and the Environment From Unsustainable to Sustainable development. Urban problems related to energy. Water conservation - Rain water harvesting - Watershed management. Environmental ethics: Issues and possible solutions. Environment Protection Act - Air Act - Water Act - Wildlife Protection Act -Forest Conservation Act.	4	Text Book
	Total	24	

Text book	1.	Bharucha, E., 2005, 2 nd Edition, "The Biodiversity of India", Mapin Publishing Pvt. Ltd., Ahmedabad, India.
	2.	De, A.K., 2000, 4 th Edition, "Environmental Chemistry", Wiley Eastern Ltd., India
Reference Books	1.	Gleeson, B. and Low, N., 1999, 1 st Edition, "Global Ethics and Environment", Routledge, London.
	2.	Wagner, K.D., 1998, 1 st Edition, "Environmental Management", W.B. Saunders Co., Philadelphia, USA.
	3.	Groom, M.J., Meffe, G.K. and Carroll, C.R., 2006, 3 rd Edition, "Principles of Conservation Biology", Sinauer Associates, Sunderland.
	4.	Jadhav, H. and Bhosale, V.M., 1995, 1 st Edition, "Environmental Protection and Laws", Himalaya Publishing House, Delhi.

Journal and Magazines	https://www.hzu.edu.in/bed/E%20V%20S.pdf
E-Resources and Website	https://www.ugc.gov.in/oldpdf/modelcurriculum/env.pdf

Learning Method	Chalk and Talk/Assignment/Seminar/ Group Discussion/Case Study
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Focus of the Course	Skill Development/ Employability
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