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VishwavidyanilayaKaryasoudha Crawford Hall, Mysuru- 570 005

www.uni-mysore.ac.in

Dated: 05.08.2024

No.AC2(S)/55/2024-25

### **Notification**

Sub:-Syllabus and Scheme of Examinations of Constitutional Values with reference to Environmental Studies (UG) programme (I & II Semester) from the Academic year 2024-25.

- Ref:- 1. Decision of Board of Studies in Environmental Science (CB) meeting held on 10.06.2024.
  - 2. Orders of the Hon'ble Vice-Chancellor dated: 05.08.2024.

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The Board of Studies in Environmental Science (CB) which met on 10-06-2024 has resolved to recommend and approved the Syllabus and Scheme of examinations of Environmental Studies for UG programme (I & II Semester) with effect from the Academic year 2024-25.

Pending approval of the Academic Council meeting the above said Syllabus and Scheme of examinations are hereby notified.

The Syllabus and Scheme of Examinations content may be downloaded from the University Website i.e., www.uni-mysore.ac.in.

### Draft approved by the Registrar

06/08 Deputy Registrar(Academic) Deputy Registrar (Academic) University of Mysore,

### To;

1. All the Principal of affiliated Colleges of University of Mysore, Mysore.

2. The Registrar (Evaluation), University of Mysore, Mysuru.

3. The Chairman, BOS/DOS in Environmental Science, Manasagangothri, Mysore.

4. The Dean, Faculty of Science & Technology, DOS in Mathematics, MGM.

- Bhavan, Education Programme, Moulya Director, Distance 5. The Manasagangotri, Mysuru.
- 6. The Director, PMEB, Manasagangothri, Mysore.
- 7. Director, College Development Council, Manasagangothri, Mysore.
- 8. The Deputy Registrar/Assistant Registrar/Superintendent, Administrative Branch and Examination Branch, University of Mysore, Mysuru.
- 9. The PA to Vice-Chancellor/ Registrar/ Registrar (Evaluation), University of Mysore, Mysuru.
- 10. Office Copy.

### **University of Mysore**

## **Environmental Studies for degree courses** (I and II Semester)

Revised Syllabus 2024-2025 onwards

Department of Studies in Environmental Science University of Mysore Mysore – 570 005

2024-2025

# Environmental Studies for Bachelor degree courses of University of Mysore

# Compulsory course / Constitutional values I/II Semester

	Content of AECC – Environmental Studies 2 Credits with 03 Hours of Teaching per week	45 hours		
Unit 1	Introduction to Environmental Studies			
	Multidisciplinary nature of environmental studies	02		
	Scope and importance; Concept of sustainability and sustainable development.			
Unit 2	Ecosystems			
	Ecosystem - Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems:	06		
	<ul><li>a) Forest ecosystem,</li><li>b) Grassland ecosystem,</li><li>c) Desert ecosystem,</li></ul>			
	Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)			
Unit 3	Natural Resources: Renewable and Non-RenewableResources			
	Land resources and land-use change; Land degradation, soil erosion and desertification.	07		
	Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribalpopulations.			
	Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).			
	Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.			
Unit 4	Biodiversity and Conservation	08		
	Levels of biological diversity: Genetic, species and ecosystem diversity; Biogeographic zonesof India;			
	Biodiversity patterns and global biodiversity hot spots.			
	India as a mega-biodiversity nation; Endangered and endemic species of India.			
	Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.			
	Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.			

Unit 5	Environmental Pollution	07
	Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution,	
	Nuclear hazards and human health risks	
	Solid waste management, Control measures of urban and industrial waste Pollution case studies.	
Unit 6	Environmental Policies & Practices	07
	Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture.	
	Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).	
	Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context	
Unit 7	<b>Human Communities and the Environment</b>	06
	Human population growth: Impacts on environment,human health and welfare.	
	Resettlement and rehabilitation of project affected persons; case studies.	
	Disaster management: floods, earthquake, cyclones and landslides.	
	Environmental movements: Chipko, Silent valley, Bishnoisof Rajasthan Environmental ethics: Role of Indian and other religions and cultures in environmental conservation	
	Environmental communication and public awareness, casestudies (e.g., CNG vehicles in Delhi).	
Unit 8	Field work	02

Reference:	1. Carson, R. (2002). Silent Spring. Houghton Mifflin Harcourt.	
	<ol> <li>Gadgil, M., &amp; Guha, R. (1993). This Fissured Land: An Ecological History of India.</li> <li>Univ. of California Press.</li> </ol>	
	4. Gleeson, B. and Low, N. (eds.) (1999). Global Ethics and Environment, London, Routledge.	
	<ol> <li>Glejck, P. H. (1993). Water in Crisis. Pacific Institute for Studies in Dev., Environment &amp; Security. Stockholm Env. Institute, Oxford Univ. Press.</li> </ol>	
	6. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. (2006). Principles of Conservation Biology. Sunderland: Sinauer	

Associates.

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- 9. McNeill, John R. (2000). Something New Under the Sun: An EnvironmentalHistory of the Twentieth Century.
- 10. Nandini, N. (2019). A text book on Environmental Studies (AECC). Sapna BookHouse, Bengaluru.
- 11. Odum, E.P., Odum, H.T. & Andrews, J. (1971). Fundamentals of Ecology. Philadelphia: Saunders.
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- 13. Rao, M.N. & Datta, A.K. (1987). Waste Water Treatment. Oxford and IBHPublishing Co. Pvt. Ltd.
- 14. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. (2012). Environment. 8th edition. JohnWiley & Sons.
- 15. Rosencranz, A., Divan, S., & Noble, M. L. (2001). Environmental law and policy in India. Tripathi 1992.
- 16. Sengupta, R. (2003). Ecology and economics: An approach to sustainable development. OUP.
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- 18. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). (2013). Conservation Biology: Voices from the Tropics. John Wiley & Sons.
- Thapar, V. (1998). Land of the Tiger: A Natural History of the Indian Subcontinent. Warren, C. E. (1971). Biology and Water Pollution Control. WBSaunders.
- 20. Wilson, E. O. (2006). The Creation: An appeal to save life on earth. New York: Norton.
- 21. World Commission on Environment and Development. (1987). Our CommonFuture. Oxford University Press.

### (MODEL QUESTION PAPER 1st to 2nd semester) ENVIRONMENTAL STUDIES

(MAX MARKS: 50 (C<sub>1</sub>:5 + C<sub>2</sub>:5 + C<sub>3</sub>:40)

Time: 2 hrs

Max. Marks: 40

Note: 1. Answer all questions  Draw neat-labeled diagrams and give examples wherever necessary					
	SECTION A				
Answer all the questions	10X 1 =08 marks				
1. Answer in one word or a sentence					
a.					
<b>b.</b>					
c.					
d.					
<b>e.</b>					
<b>f.</b>					
g.					
h.					
	SECTION B				
II. Write short notes on any FOUR of the following: 4 X 3 = 12 Marks					
2.					
3.					
4.					
5. 6.					
0.					
	SECTION C				
III. Answer any TWO of the following:		2 x 10 = 20 Marks			
9.					
10.					
11.					