

| Course Code | Title | |
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| 18U4ENV101 | Ability Enhancement Compulsory course (AECC) Environmental Studies | |
| Semester: I | Credits: 2 (Common to all UG Programmes) | ESE : 50 Marks |

Course Objective: This course enables the students to recognize the interconnectedness of multiple factors in environmental challenges and communicate clearly and competently matters of environmental concern.

Course Outcome:

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| CO 1 | To understand key concepts from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions. |
| CO 2 | To understand concepts and methods from ecological and physical sciences and their application in environmental problem solving. |
| CO 3 | To solve the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems. |
| CO 4 | To reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world. |
| CO5 | To apply systems concepts and methodologies to analyze and understand interactions between social and environmental processes. |

Course Content

Instructional Hours / Week : 2

| Unit | Description | Text Book | Chapter |
|----------------------------|---|-----------|---------------------|
| I | Natural Resources: Forest resources, Water resources, Mineral resources Food resources and Energy resources. | 1 | 5 |
| Instructional Hours | | | 6 |
| II | Ecosystems: Concept of an ecosystem, Structure and function; Introduction, types characteristic features, structure and function of ecosystem Activity: Prepare an album on types of Ecosystem. | 1 | 3 |
| Instructional Hours | | | 6 |
| III | Environmental Pollution: Definition Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution and Noise pollution, Solid waste management Activity: Discuss the solutions for water pollution. | 1 | 8,9,11, 10,12,15 |
| Instructional Hours | | | 6 |
| IV | Social Issues and the Environment Water conservation, rain water harvesting, watershed management, Environmental ethics : Issue summits' and possible solutions and Public awareness Activity: Identify and analyze a Social Issue and an Environment issue in your locality. | 1 2 | 17 9 |

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| Instructional Hours | | | 4 |
| V | Disaster Management: Floods, Earthquakes, Cyclones, Landslides: From management to mitigation of disasters: The main elements of a mitigation and measures of strategy: Floods, Earthquakes, Cyclones and Landslides | 3 | 16 |
| Instructional Hours | | | 6 |
| Case Studies: Use Social media for e-networking and dissemination of ideas on environmental issues. (Or) Visit to a Nearby biome / Wildlife Sanctuary/ our own campus & study the various bioresources. | | | 2 |
| Total hours | | | 30 |

Text Book(s):

1. Agarwal, K.M., Sikdar, P.K., Deb, S.C. (2002). A Textbook of Environment. Macmillan India Ltd. Kolkata, India.
2. Dash, M.C. (2004). "Ecology, Chemistry & Management of Environmental Pollution". Published By Rajiv Beri For Macmillan India Ltd. 2/10 Ansari Road, Daryaganj, New Delhi – 110002.
3. From UGC website: <https://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf>

Reference Book(s):

1. Agarwal, K.C. 2001 Environmental Biology, Nidi Public Ltd Bikaner.
2. Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws Himalaya Pub. House, Delhi 284 p.
3. Mckinney, M.L. & Schoch R.M. 1996. Environmental Science systems & Solutions
4. Odum, E.P. 1971 Fundamentals of Ecology. W.B. Saunders Co. USA. 574 p
5. Rao MN & Datta, A.K. 1987 Waste Water treatment, Oxford & IBH Publication Co. Pvt. Ltd 345 p.