

Course Syllabi: UEN001 Environmental Studies (L : T : P :: 3 : 0 : 0)

1. **Course number and name:** UEN001; Environmental Studies
2. **Credits and contact hours:** Credits: 3.0; Hours: 3
3. **Text book, title, author, and year**
 - *Bharucha, E., Textbook of Environmental Studies, Universities Press (2005).*
 - *Chapman, J.L. and Reiss, M.J., Ecology- Principles and Application, Cambridge University Press (LPE) (1999).*
 - *Joseph, B., Environmental Studies, Tata McGraw-Hill (2006).* Miller, G.T., *Environmental Science- Working with Earth, Thomson (2006).*
 - *Wright, R.T., Environmental Science-Towards a sustainable Future, Prentice Hall (2008) 9th ed.*

b. Other supplemental materials

 - Nil
4. **Specific course information**
 - a. Brief description of the content of the course (catalog description)

Definition and Scope: Importance, Public awareness and education.

Natural Resources: Introduction, Renewable and Non-Renewable, Forest, Water, Mineral, Food, Energy and Land Resources, Individual and Conservation of Resources, Equitable Use of Resources.

Ecosystems: Concept, Structure, Function, Energy Flow, Ecological Succession, Forest, Grassland, Desert and Aquatic Ecosystems - Introduction, Characteristic Features, Structure and Function.

Biodiversity: Genetic, Species and Ecological Diversity, Biogeographical Classification of India, Value and Hot Spots, Biodiversity At Global, National and Local Levels, India As Mega-Biodiversity Nation, Threats to Biodiversity, Endangered and Endemic Species of India, Conservation of Biodiversity, Endangered and Endemic Species, Conservation of Biodiversity.

Pollution: Definition, Causes, Effects and Control Measures of The Pollution – Air, Soil, Noise, Water, Marine and Thermal and Nuclear Pollution, Solid Waste Management, Role of Individual in Prevention of Pollution, Pollution Case Studies, Disaster Management.

Social Issues: Sustainable Development, Water Conservation, Environmental Ethics, Climatic Change, Wasteland Reclamation, Environmental Protection Acts and Issues.

Human Population and The Environment: Population Growth, Environment and Human Health, Human Rights, HIV/AIDS, Value Education, Women and Child Welfare, IT in Human Health and Environment, Case Studies.
5. **Specific goals for the course**

After the completion of the course, the students will be able to:

 - Define the environmental issues pertaining to day-to-day living.
 - Explain the importance of the conserving energy and environmental resources.
 - Elaborate the need for intellectual property associated with endemic and valuable biological resources.
 - Describe the causes and consequences of pollution.

- Elucidate the diverse variety of social issues associated with environmental deterioration.

6. Brief list of topics to be covered

- Natural Resources
- Biodiversity
- Eco systems
- Pollution
- Social issues
- Human population and environment