

ENVIRONMENTAL STUDIES
(Compulsory Foundation Course)

Course-I/ FC/EVS – IV

Credits: 5

UNIT-I: INTRODUCTION

- Scope and importance- multidisciplinary nature of environmental studies
- Ecology- concept, classification and ecological levels of organization
- Ecosystem- concept, types, classification and components of an ecosystem
- Structure and function of an ecosystem

UNIT-II: NATURAL RESOURCES

- Introduction, classification of natural resources
- Basics of renewable resources
- Basics of non-renewable resources
- Causes for depletion and conservation measures of natural resources

UNIT-III: BIODIVERSITY AND CONSERVATION

- Definition, pattern and levels of biodiversity
- Concept of mega-diversity and hotspot of biodiversity
- Causes and consequences of biodiversity loss
- Conservation of biodiversity- *In-situ* and *Ex-situ*

UNIT-IV: ENVIRONMENTAL POLLUTION

- Basic concept and types of environmental pollution
- Sources and causes of environmental pollution (air, water, soil, noise)
- Effects and control measures of environmental pollution (air, water, soil, noise)
- Climate change- global warming, ozone layer depletion, acid rain and impact on human communities and agriculture

UNIT-V: SOCIAL ISSUES, ENVIRONMENT AND DEVELOPMENT

- Goals, objectives and guiding principles of environmental education.
- Environmental movements- Chipko, Appiko, Silent valley projects
- Role of NGOs in environment development
- Concept of sustainable development

Suggested Readings:

1. Asthana, D.K. and Asthana, M. 2010. A Text Book of Environmental Studies. S. Chand and Company, New Delhi.
2. Bharucha, E. 2013. Text Book of Environmental Studies. University Press (India) Pvt. Ltd., Hyderabad.
3. Daniel, D. C. 2014. Environmental Science. Jones and Bartlett Publishers, London.
4. Dara, S.S. 2004. A Text Book of Environmental Studies and Pollution Control. S. Chand and Company, New Delhi.
5. Gupta, A., Dey, M. and Bhattacharjee, P.R. 2001. Our Environment. Assam University, Silchar.
6. Joshi, P.C. 2012. A Text Book of Environmental Science. APH Publishing Corporation. New Delhi.
7. Kanagasabai, T. 2010. Environmental Studies. PHI Learning Private Limited, New Delhi.
8. Khopkar, S. M. 2007. Environmental pollution control and monitoring. Newage International Pvt. Ltd. Mumbai.
9. Purohit, S.S. 2011. Environmental Pollution: Causes, Effects and Control. Vatsal Enterprises, New Delhi.

10. Saha, T.K. 2013. Ecology and Environmental Biology. Books & Allied (P) Ltd. Kolkata.
11. Santra, S.C. 2014. Environmental Science. New Central Book Agency (P) Ltd., Kolkata.
12. Sharma, P.D. 2011. Ecology and Environment. (10th Revised Edition). Rastogi Publication, Meerut.
13. Singh, M.P., Dey, S. and Singh, B.S. 2004. Conservation of Biodiversity and Natural Resource. Daya Publishing House, New Delhi.
14. Trivedi, P.C. 2010. Environmental pollution: Causes, mitigation and recycling. Aaviskar Publishers.
