

**Unit1: Introduction to Environmental Studies**

**5 lectures**

- Multidisciplinary nature of environmental studies;
- Scope and importance;
- Basic concepts: Renewable resources, non renewable resources, Common Property resources, Tragedy of commons, Climate change, global warming
- Concept of sustainable development

**Unit 2: Ecosystems**

**10 lectures**

- What is an ecosystem? Difference between ecology and ecosystem. Structure and function of ecosystem: Energy flow in an ecosystem: food chains, food web and

ecological succession.

- Case studies on any one of the following
  - a) Forest ecosystem
  - b) Grassland ecosystem
  - c) Aquatic ecosystems (ponds, streams, lakes, rivers)
  - d) Mountain ecosystem

**Unit 5: Environmental Pollution and laws**

**15 lectures**

- Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution
- Solid waste management: Control measures of urban and industrial waste.
- 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, policies and treaties

**Suggested Readings:**

1. Bharucha Erach : Text book on Environmental Studies, UGC, New Delhi
2. Carson, R 2002. Silent Spring. Houghton Mifflin Harcourt.
3. De A.K.: Environmental Chemistry, Wiley Eastern Ltd.
4. Kaushik Anubha and C.P.Kaushik : Perspective in Environmental Studies, New Age International
5. Rajagopalan, R. (2018). Environmental Studies. (3<sup>rd</sup> Edition) Oxford University Press
6. S. C. Santra (2011): Environmental Science, New Central Book Agency