

Syllabus for BA / B.Sc/B.Com/B.Sc.IT /BBA /BCA/M.Sc. (Integrated) Courses

1st year (Semester 1st/2nd)

Ability Enhancement Compulsory Course (AECC – Environment Studies)

Academic Session 2017-18

Environmental Studies –I (Semester 1st) (02 credits)

Credit 1: Understanding Environment

- 1.1. Environment: concept and importance
- 1.2. Components of environment: Physical, Biological and Social
- 1.3. Ecosystem: Concept, Structure and Function
 - 1.3.1 Producers, Consumers and Decomposers
 - 1.3.2 Food chain, Food web and Ecological pyramids
 - 1.3.3 Energy flow in an Ecosystem
- 1.4 Ecosystem services: Ecological, economic, social, aesthetic and informational

Credit 2: Natural Resources

- 2.1 Land resources: global land use patterns, concept land degradation and desertification
- 2.2 Forest resources: Use and consequences of over-exploitation
- 2.3 Water resources: Use and consequences of over-utilization, concept of water harvesting and watershed management, water conflicts
- 2.4 Energy resources: Renewable and non-renewable energy sources, growing energy needs and alternate energy sources

Environmental Studies –II (Semester 2nd) (02 credits)

Credit 3: Biodiversity and its Conservation

- 3.1 Biodiversity: definition, levels (genetic, species and ecosystem) and values.
- 3.2 Threats to biodiversity: habitat loss, poaching of wildlife, biological invasions
- 3.3 Concept of endemism and hot- spots of biodiversity
- 3.4 Conservation of biodiversity: In-situ and Ex-situ concepts

Credit 4: Environmental issues, policies and practices

- 4.1 Causes, effects and control measures of: Air, water, Soil, Noise and solid waste pollution
- 4.2 Concept of natural disasters and Global environmental issues: Increase in greenhouse gases, climate change, Acid rain and stratospheric ozone layer depletion
- 4.3 Salient features of:
 - 4.3.1 Water (Prevention and Control of Pollution) Act, 1974
 - 4.3.2 Air (Prevention and Control of Pollution) Act, 1981
 - 4.3.3 Environment Protection Act, 1986
- 4.4 Environmental education, Environmental Movements (Chipko Movement, Silent valley) and Environmental ethics

Note: Examination to be conducted at the end of 2nd semester as per the statutes governing the examination of the University. Further wherever possible students may be taken on a field study trip.