

Title of Certification Course: Certificate Course In Environment Studies

Name of Institution: Smt. R.P. Chauhan Arts & Shri J.K. Shah & Smt. K.D. Shah Commerce College & Department Of KRP Darjee Indo-American Institute Of Computer Science, Vyara

Course Credit for Proposed Course: 3

Total Course Hours: 45

Objective of the Course: To create awareness about variations in environment and its impact on development and growth of society as a whole.

Pre-requisite: None

Expected Outcomes of the Course: Prepare students with understanding of environment and its importance in 21st century

Course Nature: (Theory / Practical / Field based or Blended) Theory

Eligibility Criteria of Participants: Any Undergraduate Student

Course Syllabus

Module 1

Environmental studies- meaning- definition- scope- importance- need. Natural resources-renewable and non-renewable resources- use- exploitation- changes- benefits and conflicts of forest, water, minerals, food, energy, and land resources-role of an individual in conservation of natural resources-equitable use of resources for sustainable life styles

Module 2

Concept of an ecosystem. • Structure and function of an ecosystem. • Producers, consumers and decomposers. • Energy flow in the ecosystem. • Ecological succession. • Food chains, food webs and ecological pyramids. • Introduction, types, characteristic features, structure and function of the following ecosystems: - a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem

Module 3

• Introduction – Definition : genetic, species and ecosystem diversity. • Biogeographical classification of India • Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values • Biodiversity at global, National and local levels. • India as a mega-diversity nation • Hot-spots of biodiversity. • Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts. • Endangered and endemic species of India • Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity

Module 4

Environmental Pollution Definition Causes, effects and control measures of: Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards, Solid waste Management : Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution

Module 5

Social issues and the Environment- from unsustainable to sustainable development- urban problems related to energy – urban planning (concepts) - water conservation-rain water harvesting- watershed management-Resettlement and rehabilitation of people- its problems and concerns, The Environment Protection Act ,The Air (prevention and control of pollution) Act ,The Water (prevention and control of pollution) ,Forest Conservation Act, Environmental Ethics- issues and possible solutions- Climate change- global warming- acid rain-ozone layer depletion- nuclear accidents and holocaust

Module 6

Human population and the Environment- Population growth-variation among nations, population Explosion- Environment and human health- Human rights- Value education, HIV/AIDS – Role of NGO's and NSS in Environment Protection- Role of Information technology in environment and human health

Books Recommended

1. Erach Bharucha, Text Book for Environmental Studies. Bharati Vidyapeeth, Institute of Environment Education and Research
2. Sharma, J.P.(2009). Environmental Studies, Kindle edition, Laxmi Publisher, New Delhi
3. Kaul, S.N, Saini, D.R and Rai, B.N. (2013). Environmental Science, Aph Publishing Corporation
4. Rabindra N Bhattaria: Environmental economics-an Indian perspective: Oxford
5. Jadhav H& Bhosale, VM (1995) Environmental protection and Laws. Himalaya Publishing House, New Delhi