CENTRE FOR FUTURES STUDIES
THE GANDHIGRAM RURAL INSTITUTE (DEEMED TO BE UNIVERSITY)
GANDHIGRAM – 624 302

ENVIRONMENTAL STUDIES (3+1)

(Course Code – 21EVSU0101, 21EVSI0201, 21EVSV0301)

Course Objectives:

- To impart the basic knowledge about the environment and its associated problems among students.
- To develop an attitude of concern for environment and create harmony with nature among students.
- To motivate students to acquire a set of values for environmental conservation and for improvement.
- To create awareness & importance of sustainable development without degrading the environmental resources.

Importance of environment study

In the modern industrialized era that we live today, every component that we consumed - be it, air, water or food are contaminated with industrial activities. There is no product with free of pollution. In order to minimize this problem, knowledge about environment is very essential among the people especially with students.

Course Outcome

Students will be able to

- Appreciate the concepts and methods from ecological, biological and physical sciences and their application in solving environmental problem.
- Appreciate the ethical and historical context of environmental issues and links between human and natural ecosystems.
- Reflect critically about their roles and identities as a consumers and environmental actors in an interconnected world.

UNIT –I

NATURAL RESOURCES

- Introduction to environment and natural resources (Definition, Scope and Importance).
- Forest resources: Use and over- exploitation of forest resources and its impact on forest and tribal people.
- Water resources: Use and over- exploitation of water and impact.
- Land resources: land degradation and soil- erosion, desertification.
- Food resources: Effect of modern agriculture, fertilizer- pesticide problems.
- Energy resources: Growing energy needs renewable and non renewable energy resources –use of alternative energy sources.

UNIT II

ECOSYSTEM AND BIODIVERSITY

- Concept of an ecosystem
- Structure and Function of an ecosystem
- Food chains, food webs and ecological pyramids
- Types of ecosystem
- Biodiversity: Genetic, species and ecosystem diversity
- Threats to biodiversity: habitat loss, poaching of wild life, man –wildlife conflicts
- Endangered and endemic species of India
- Conservation of Biodiversity: *In-situ* and *Ex-situ* conservation of Biodiversity

UNIT III

ENVIRONMENTAL POLLUTION

Causes, effects and control measures of:

- Air pollution
- Water pollution
- Soil pollution
- Noise pollution and
- Nuclear hazards
- Solid waste management

UNIT IV

SOCIAL ISSUES AND THE ENVIRONMENT

- Sustainable development
- Rural urban problems related to environment
- Water management and rain water harvesting
- Environmental ethics: Issues and possible solutions
- Environmental Movements – Chipko, Silent Valley and Bishnois of Rajasthan
- Environmental protection policy, Act and Legislation
- Population and the environment
- HIV/AIDS
- Women and child welfare, Gender Issues, Institutions for gender studies and research

UNIT V

DISASTER MANAGEMENT

- Disaster: Meaning and concepts, types, causes and management.
- Effects of disaster on community, economy, environment
- Disaster management cycle: early response, rehabilitation, reconstruction and preparedness
- Disaster management authority: National state and district level.
- The Disaster Management Act, 2005
- Ill effects of fireworks

FIELD WORK

- Visit to local area to document environment assets-river/forest/grassland/hill/mountain
- Visit to a local polluted site-Urban/Rural/Industries/Agriculture
- Study of simple ecosystem-pond hill slopes etc
- Study of common plants, insects, birds
- Preparing village disaster management plan
- Visiting project sites relevant to Disaster Management

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