AMITY UNIVERSITY
MADHYA PRADESH
Established vide Government of Madhya Pradesh Act No. 27 of 2010

# ENVIRONMENTAL STUDIES-I

**Course Code: EVS 142** **Credit Units: 02**

**Course Objectives:**

This paper will discuss the basics of environmental studies and issues pertaining to the same. The students would learn about the basics of environmental laws and regime pertaining and a few major supreme court cases pertaining to environment in India

**Pre-requisites:** Nill

**Course Contents:**

**Module I: The multidisciplinary nature of environmental studies**

Definition, scope and importance
Need for public awareness

**Module II: Natural Resources Renewable and non-renewable resources:**

Natural resources and associated problems

Forest resources: Use and over -exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.

Land resources: Land as a resource, land degradation, man induced landslides, soil erosion anddesertification.

Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.

**Module III: Ecosystems**

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 ecosystem:

a. Forest ecosystem
b. Grassland ecosystem
c. Desert ecosystem
d. Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

**Module IV: Biodiversity and its conservation**

Introduction – Definition: genetic, species and ecosystem diversity
Biogeographical classification of India

Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option valuesBiodiversity 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

**Examination Scheme:**

| Components | CT | HA | S/V/Q | A | ESE |
|---|---|---|---|---|---|
| Weightage (%) | 15 | 10 | 20 | 5 | 50 |

**Student Learning Outcomes:**

After completion of this paper students will be well versed with:

• The students would be aware of the importance of environment as an area of study.

• The students would get acquainted with the importance and impact of major present environmental issues.

• The student would be apprised with the basics of environmental law and current regime in india.

• The learning from the judgemnts of supreme court cases would expose them to the practical applicability of laws and issues concerning Environment.

## Text & References:


Chauhan B. S. 2009: Environmental Studies,University Science Press New Delhi.

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# ENVIRONMENTAL STUDIES-II

**Course Code:** EVS 242 **Credit Units: 02**

**Course Contents:**

**Module I: Environmental Pollution**

Definition, causes, effects and control measures of:

a. Air pollution
b. Water pollution
c. Soil pollution
d. Marine pollution
e. Noise pollution
f. Thermal pollution
g. Nuclear pollution

Solid waste management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Pollution case studies. Disaster management: floods, earthquake, cyclone and landslides.

**Module II: Social Issues and the Environment**

From unsustainable to sustainable development, Urban problems and related to energy, Water conservation, rain water harvesting, watershed management

Resettlement and rehabilitation of people; its problems and concerns Case studies.
Environmental ethics: Issues and possible solutions

Climate change, Global warming, Acid rain, Ozone layer depletion, Nuclear Accidents and Holocaust case studies.
Fireworks/Crackers – Introduction, ill effects on environment and humans.

Wasteland reclamation, Consumerism and waste products, Environmental Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act

Issues involved in enforcement of environmental legislation Public awareness

**Module III: Human Population and the Environment**

Population growth, variation among nations
Population explosion – Family Welfare Programmes
Environment and human health
Human Rights
Value Education
HIV / AIDS
Women and Child Welfare
Role of Information Technology in Environment and Human Health
Case Studies

**Module IV: Field Work**

Visit to a local area to document environmental assets-river / forest/ grassland/ hill/ mountain. Visit to a local polluted site – Urban / Rural / Industrial / Agricultural. Study of common plants, insects, birds. Study of simple ecosystems-pond, river, hill slopes, etc (Field work equal to 5 lecture hours)

**Examination Scheme:**

| Components | CT | HA | S/V/Q | A | ESE |
|---|---|---|---|---|---|
| Weightage (%) | 15 | 10 | 20 | 5 | 50 |

**Student Learning Outcomes:**

At the end of this paper students:

• would be aware of the importance of environment as an area of study.

• would get acquainted with the importance and impact of major present environmental issues.

• would be apprised with the basics of environmental law and current regime in India.

• The learning from the judgments of Supreme Court cases would expose them to the practical applicability of laws and issues concerning Environment.

## Text & References:


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