

DEPARTMENT OF ENVIRONMENTAL STUDIES

Programme objectives:

1. To help students to explore and connect with their surroundings.
2. To learn and understand the basic concepts of environmental studies.
3. To inculcate a sense of responsibility to each student towards the environment.
4. To provide every student with opportunities to acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment; to create new patterns of behavior of individuals, groups, and society as a whole towards the environment.
5. Awareness: To help students acquire awareness of and sensitively to the total environment and its allied problems.
6. Knowledge: To help students gain a variety of experiences and acquire a basic understanding of environment and its associated problems.
7. Attitudes: To help students acquire a set of values and feelings of concern for environment.
8. Skills: To help the students in acquiring skills for identifying and solving environmental problems.
9. Participation: To provide students with an opportunity to be actively involved at all levels in working towards the resolution of environmental problems.
10. The above objectives will be enabled through readings, classroom teaching, discussion and activities. It will also initiate a sense of responsibility by inculcating research attitude and problem solver at one's space and pace.

EVS 501

As per UGC guideline this is a compulsory paper for Environmental Studies (EVS). It is to be taught in various Undergraduate programmes under the Nagaland University for semester system. This syllabus includes classroom teaching followed by fieldwork.

UNIT I: Ecosystem and the Environment

a. Definition, Scope and importance of Environmental studies, Need for Public awareness. b. Concepts of an Ecosystem, Structure and functions of an Ecosystem. c. Producers, Consumers and Decomposers in an Ecosystem.

UNIT II: Natural Resources

a. Renewable and non-renewable resources, Role of individual in conservation of natural resources for sustainable life styles. b. Use and over exploitation of Forest resources, Deforestation, Timber extraction, Mining, Dams and their effects on forest and tribal people. c. Use and over exploitation of surface and ground water resources, Floods, Drought, Conflicts over water, Dams- benefits and problems.

UNIT III: Biodiversity and its Conservation

a. Definition, Genetic, Species and Ecosystem diversity, Bio-geographical classification of India. b. Value of biodiversity: Consumptive use, Productive use, Social, Ethical, Aesthetic and option values.

UNIT IV: Environmental pollution

a. Definition, Causes, effects and control measures of Air pollution. Water pollution and Soil pollution. b. Causes, effects and control measures of Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards.

UNIT V: Population issues and the Environment

a. Population growth, Variation among nations, Population explosion- Family welfare programmes, Environment and Human health, Human rights, Value education, HIV/AIDS. b. Woman and Child welfare, Role of information technology in environment and human health, Case studies.

Course Objective

This paper aims to give the fundamental idea about understanding the functions of natural system. This has to be related with various man induced activities affecting the nature in a destructive manner. Students have to be practically involved to understand this process by doing field work and assessment is internal.

EVS II/601

This is an optional paper for Environmental Studies (EVS) against CBCS (Choice Based Credit System) in various Undergraduate programmes under the Nagaland University for semester system. This syllabus includes classroom teaching followed by fieldwork.

UNIT I: Ecosystem Functions

a. Energy flow in an Ecosystem, Food chains and Food webs, Ecological pyramids, Ecological succession b. Types, characteristics and functions of Forest, Grassland, Desert and Aquatic (Ponds, Streams, Lakes, Rivers, Oceans, Estuaries) ecosystems.

UNIT II: Natural Resources

a. Use and exploitation of Mineral resources, Environmental effects of using mineral resources, World food problems, Changes caused by Agriculture and over grazing, Effects of modern agriculture, Fertilizer- Pesticide problems, Water logging and Salinity.

b. Growing energy needs, renewable and non-renewable energy resources, use of alternate energy resources, Land resources, Land degradation, Man-induced landslides, Soil erosion and Desertification.

UNIT III: Biodiversity and its Conservation

- a. Biodiversity at Global, National and Local levels, India as a mega-diversity nation, Hotspots of biodiversity.
- b. Threats to biodiversity: Habitat loss, Poaching of wild life, Man-Wildlife conflicts.
- 4 c. Endangered and Endemic species of India, In-situ and Ex-situ conservation of biodiversity.

UNIT IV: Environmental pollution

- a. Solid waste management and control measures of Urban and Industrial wastes.
- b. Role of individual in prevention of pollution, Pollution case studies.
- c. Disaster management: Floods, Earthquakes, Cyclones and Landslide management.

UNIT V: Social issues and the Environment

- a. Urban problems related to energy, Water conservation, Rainwater harvesting, watershed management, Resettlement and rehabilitation of people; its problems and concern, Case studies.
- b. Wasteland reclamation, Consumerism and waste products, Climate change, Global warming, Acid rain. Ozone layer depletion, Nuclear accidents and holocaust.
- c. Environmental protection Act: Air and Water prevention and control of pollution Act, Wildlife protection Act, Forest conservation Act, Issues involved in enforcing of environmental legislation.

Course Objective:

This paper aims for a deeper understanding of environment and its functions. How various man induced activities are responsible for degrading environment and what are the measures to such environmental management. Students have to be practically involved to understand this process by doing field work and assessment is internal.