

ENVIRONMENTAL SCIENCE : (2023-24 NEP)

Course Outcome

SEMESTER – I

Major Course:

Course Code: ENVS-M-1

Course Title: FUNDAMENTALS OF ENVIRONMENT AND ECOLOGY

Course Outcome: This paper will introduce to the students the basic understanding of environment and ecology. It will explore the interconnectedness among all the biotic and abiotic components of environment and the dynamic nature of the ecological processes in maintaining equilibrium in nature

Minor Course: Course Code: ENVS-MI(I)-1

Course Title: ENVIRONMENTAL POLLUTION

Course Outcome: To impart students the different types of pollution, causes and mitigation strategies. The students will be aware of the types of pollutants, sources, impacts and mitigation practices.

Multidisciplinary Course:

Course Code: ENVS-MDC-1

Course Title: NATURAL RESOURCE MANAGEMENT

Course Outcome: This paper aims to provide an idea of the nature of Earth's resources, their generation, extraction, degradation and a critical insight of the major sustainability issues. The students are expected to understand effective natural resource management strategies from this course.

Skill Enhancement Course:

Course Code: ENVS-SEC-1-P

Course Title: WATER AND AIR QUALITY ANALYSIS

Course Outcome: This paper aims to provide knowledge about different types of sampling techniques, instruments handling, calibration methods, analysis of water and air quality in order to develop skills among students.

Value Added Course:

Course Code: ENVS-VA-1

Course Title: ENVIRONMENTAL EDUCATION

Course Outcome: The course examines the relationship between the environment and society enabling the students to understand and appreciate the role played by environment, society, and, their interface in shaping environmental decisions. The students will be enabled to think critically on environmental issues.

SEMESTER – II

Major course:

Course Code: ENVS-M-2

Course Title: ENVIRONMENTAL POLLUTION AND MITIGATION

Course Outcome: This paper deals with different aspects of environmental contamination, which have adverse effects on human health. It will lay emphasis on understanding mechanisms of pollutants impacting human health by developing an understanding of different types of pollutants, their sources and mitigation measures. The students will also be introduced to the concept of permissible limits.

Minor course:

Course Code: ENVS-MI(II)-2

Course Title: SOCIETY, GENDER AND ENVIRONMENT

Course Outcome: The course examines the relationship between the environment and society enabling the students to understand and appreciate the role played by environment, society, and, their interface in shaping environmental decisions. The concept of gender in society and its relevance in the environmental context is also included.

Multidisciplinary Course:

Course Code: ENVS-MDC-2

Course Title: CLIMATE CHANGE AND GLOBAL ENVIRONMENTAL ISSUES

Course Outcome: The paper deals with climate change and global environmental issues which includes composition and processes of atmosphere, meteorological phenomena and atmospheric chemistry. The paper also highlights the anthropogenic intervention in 'anthropocene', which has led to global climate change. The paper also explores effects of global changes on human communities and initiatives taken at global and regional levels to combat them.

Skill Enhancement Course:

Course Code: ENVS-SEC-2-P

Course Title: SOIL QUALITY ANALYSIS AND NOISE MONITORING

Course Outcome: This paper aims to provide knowledge about soil sampling techniques, analysis of soil and sediment, understanding of sound quality and noise level monitoring practices for skill development among students.

SEMESTER – III

Major Course:

Course Code: ENVS-M-3

Course Title: Water Resources and Wastewater Management

Course Outcome: Every human activity ends up in the generation of unwanted waste product. This paper throws light on the current scenario of waste and waste water generation, problems in handling and management. It also deals with the different governmental policies for proper management in order to minimize their effect on environment.

Minor Course:

Course Code: ENVS-MI- Course 2

Course Title: BASICS OF BIODIVERSITY

Course Outcome: This course is aimed at helping students to understand and appreciate various concepts and issues concerning biodiversity and conservation at local, regional and global levels. The course will attempt at encouraging students to appreciate the paradigm “think globally, act locally” for a sustainable common future of humankind.

Multidisciplinary Course:

Course Code: ENVS-MDC

Course Title: NATURAL RESOURCE MANAGEMENT

Course Outcome: This paper aims to provide an idea of the nature of Earth’s resources, their generation, extraction, degradation and a critical insight of the major sustainability issues. The students are expected to understand effective natural resource management strategies from this course.

Skill Enhancement Course:

Course Code: ENVS-SEC-3

Course Title: ANALYTICAL TECHNIQUES IN ENVIRONMENTAL MONITORING

Course Outcome: This paper introduces the students to various instrumental techniques for environmental analysis along with their principle and applications. An attempt will be made to have a compressive idea about various sampling techniques along with sample preparation. The students will also be introduced to the concept of radioactivity detection techniques and their applications.

SEMESTER – IV

Major Course:

Course Code: ENVS-M-4

Course Title: ENVIRONMENTAL CHEMISTRY AND ENVIRONMENTAL PHYSICS

Course Outcome: This paper aims to build conceptual understanding of students by exposing them to the basic principles behind various environmental processes. The paper has been divided into two sections, with the view to introduce students to the concepts of chemistry and physics associated with particle movement, chemical processes and pollutant chemistry.

Major Course:

Course Code: ENVS-M-5

Course Title: ENVIRONMENTAL TOXICOLOGY AND HEALTH

Course Outcome: This paper deals with basic concepts of toxicology, categories of toxicants, their sources, action and effects. It will also consider the preventive and curative measures to reverse toxic impact and maintenance of environmental health.

Minor Course:

Course Code: ENVS-MI- Course 2

Course Title: BASICS OF BIODIVERSITY

Course Outcome: This course is aimed at helping students to understand and appreciate various concepts and issues concerning biodiversity and conservation at local, regional and global levels. The course will attempt at encouraging students to appreciate the paradigm “think globally, act locally” for a sustainable common future of humankind.