



MAHATMA GANDHI UNIVERSITY
PURBA MEDINIPUR-721628, WEST BENGAL

Syllabus

ENVIRONMENTAL STUDIES

SYLLABUS FOR POST-GRADUATE PROGRAMME

Based on NEP 2020

MAHATMA GANDHI UNIVERSITY
Purba Medinipur, 721628
West Bengal, India

[w.e.f. Academic Session 2026-2027]

1st Year of PG Curricular Structure for 2 Year PG Programmes (3+2)

Semester I	Course Type	Course Code & Level	Name of the Course	Credits (L-T-P)	IA	End Sem. Exam	Full Marks
	Minor Course	PG2 ENVS 1021 (300-399)	Environmental Perspectives **	4 (3-1-0)	10	40	50

Semester II	Course Type	Course Code & Level	Name of the Course	Credits (L-T-P)	IA	End Sem. Exam	Full Marks
	Minor Course	PG2 ENVS 2021 (300-399)	To be Updated Soon	4 (3-1-0)	10	40	50

** Students from other disciplines may choose this course as a minor course.

Details of the Courses

Semester-I

PG2 ENVS 1021: Environmental Perspectives

Full Marks: 50

COURSE OBJECTIVES:

1. To provide a foundational understanding of key environmental issues and perspectives, including ethics, conservation, and climate change, fostering critical thinking and awareness.
2. To introduce the renewable and non-renewable energy, over utilization of surface and Groundwater, and modern agriculture.
3. To develop an understanding of environmental health and diseases, focusing on disease classification, chemical exposure through food, and public health initiatives in India.
4. To explore core concepts of medical microbiology, including pathogenic microorganisms, disease transmission, and epidemic management.
5. To familiarize students with the framework of environmental regulations.

SYLLABUS:

Environmental Issues: Basic ideas on ecosystem and community; Environmental issues; Conservation and environmentalism; Environmental ethics and philosophy; Environmental education; Ecofeminism, environmental agenda; Concept on climate change and its Conventions.

Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems. Use and over-utilization of surface and ground water, floods, drought, conflicts over water and problems. World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems.

Environmental Health and Diseases: Concept on health and diseases; Principle of communicable and non-communicable diseases; Chemicals in food-preservatives, artificial sweetening agents, elementary idea of antioxidants, antibiotics, antacids; Health programmes in India; Hospital waste management.

Medical Microbiology: Concept of pathogens; Infection and intoxication; Epidemics & Pandemics; Causative agents, symptoms, mode of transmission, prevention and treatment.

Environmental regulations: Constitutional provisions and Rules & Regulations; Statutory boards of pollution control, viz., CPCB, SPCB, Green Tribunal.

COURSE LEARNING OUTCOMES:

After completion of this course, students will be able to

- Demonstrate an understanding of ecological concepts and contemporary environmental issues, and critically evaluate ethical perspectives including ecofeminism and environmentalism.

- Different sources of energy and over-utilization of surface and ground water, world food problems and modern agriculture.
- Identify major communicable and non-communicable diseases and describe the impact of environmental and chemical factors on human health, including hospital waste and food safety practices.
- Describe the characteristics, transmission, and control of microbial diseases, and assess strategies for managing epidemics and pandemics.
- Interpret environmental laws, policies, and the roles of regulatory bodies such as CPCB, SPCBs, and the National Green Tribunal, in safeguarding environmental and public health.

Suggested Books:

1. Environmental Management, by Dr Biswarup Mukherjee, Bikas Publishing House Pvt Ltd.
2. Environmental Chemistry, by A. K. Dey, (Fourth Edition), New Age International Publishers
3. Environmental Chemistry with Green Chemistry, by Asim Kumar Das, Books and Allied (P) Ltd.

