

SEMESTER-III & IV

II Year- B.A / B.Sc. / B.Com / B.B.A / BCA

UNEVS24– ENVIRONMENTAL STUDIES

Year/ Sem	Course Code	Title of the Course	Course Type	Course Category	H/ W	Credits	Marks
II Years III & IV Sem	UNEVS24	Environmental Studies	Theory	General Paper	2	2	25+25+50= 100

COURSE OUTCOMES (CO):

On completion of the course, the students will be able to,

1. Gain knowledge on the multidisciplinary nature of environmental studies.
2. Understand the Ecosystem, its structure and function.
3. Understand the conservation of biodiversity.
4. Gain knowledge on Environmental pollution, its causes, and effects.
5. Apply the laws in the prevention of the environment.

UNIT I: Multidisciplinary nature of environmental studies: (6 hours)

1.1 Definition, scope, and importance (K2, K3)

1.2 Need for public awareness (K1, K3)

1.3 Natural resources: Renewable and non-renewable resources (K3, K4)

1.4 Forest Resources: Use and over-exploitation, deforestation (K3, K4)

1.5 Water Resources: Use and over-utilization of surface and groundwater (K1, K2)

1.6 Mineral Resources: Use and exploitation, environmental effects of extracting and Food resources (K2,K3)

UNIT II: Ecosystem: (6 hours)

2.1 Concept of an ecosystem (K2, K3)

2.2 Structure and functions of an ecosystem (K1, K3)

2.3 Energy flow in the ecosystem-Water cycle and carbon cycle (K4)

2.4 Food chain, food web, and ecological pyramids (K3)

2.5 Structure and functions of forest and grassland ecosystem (K2,K3)

2.6 Structure and functions of desert and aquatic ecosystem (K1,K3)

UNIT III: Biodiversity and its Conservation: (6 hours)

3.1 Definition: Genetic, Species, Ecosystem Diversity (K1, K2)

3.2 Biogeographic Classification of India (K1, K2)

3.3 Value of biodiversity: consumptive, productive use, social, ethical, aesthetic (K2, K4)

3.4 Hot spots of biodiversity, Endangered and endemic species of India (K2,K3)

3.5 Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts(K3, K4)

3.6 Conservation of biodiversity: in-situ and ex-situ (K3, K4)

UNIT IV: Environmental pollution:(6 hours)

4.1 Definition, causes, effects, and control measures of air, water, soil, and noise pollution(K2, K3)

4.2 Waste management (Solid, Liquid, E-waste): causes, effects, and control measures of urban and

industrial waste (K2,K3)

4.3 Climate change, global warming, (K3)

4.4 Acid rain, ozone layer depletion (K3)

4.5 Disaster management: floods, earthquakes, cyclones, landslides (K1,K3)

4.6 Rainwater harvesting (K1,K2)

UNIT V: Human Population and Environment: (6 hours)

5.1 Environmental acts- Environment Protection Act (1986), (K1, K3)

5.2 Air (Prevention and Control of Pollution Act 1981), Water (Prevention and Control of Pollution Act 1976 (K2, K3)

5.3 Wildlife Protection Act (1972), Forest Conservation Act (1980) (K2)

5.4 Population explosion – family welfare program (K1,K3)

5.5 Infectious diseases and Water-related diseases (K2, K3)

5.6 Role of information technology in environmental conservation. (K1,K2)

TEXT BOOKS:

1. Dr. V. Balu – Environmental Studies. 2004.
2. N. Arumugam – Concepts of Ecology, 2014.

REFERENCE BOOKS:

1. Verma and Agarwal – Environmental Biology, 2015.
2. Anubha Kaushik & Kaushik .C .P(2008)-Perspectives in Environmental Studies (3rd Edition)New age International publishers.
3. Environmental studies, Edition: Periyar EVR college, Trichy, Jazym Publications,Trichy, 2004.

OPEN EDUCATIONAL RESOURCES (OER):

7. <https://youtu.be/PwmSa09Cl6E>
8. <https://youtu.be/brF0RWJyx9w>
9. https://youtu.be/76K_5SrYyM4
10. <https://youtu.be/PqxMzKLYrZ4>

PATTERN OF QUESTION PAPER

CONTINUOUS ASSESSEMENT EXAMINATION (Units I, II & III)

Time: 1 Hour

Maximum Marks: 25

Section - A ($25 \times 1 = 25$ Marks) Objective

Project -25 Mark

SEMESTER EXAMINATION (Complete Syllabus)

Time: 2 Hour

Maximum Marks: 50

Section - A ($50 \times 1 = 50$ Marks) Objective