



NETAJI SUBHAS OPEN UNIVERSITY
AECC 2: Environmental Studies [ENVS]
SYLLABUS

Learning Objectives:

Continuous problems of pollution, and environmental made everyone aware of environmental issues. The UN Conference on Environment and Development in 1992 and the World Summit on Sustainable Development in 2002 have drawn the attention of people around the globe to the deteriorating condition of our environment. It is clear that we should learn and obtain knowledge about the environment. Recognizing this, the Hon'ble Supreme Court directed the UGC to introduce a basic course on the environment at every level in college education. Accordingly, the matter was considered by UGC and it was decided that a six months compulsory core module course in environmental studies may be prepared and compulsorily implemented in all the University/ Colleges of India.

Thus the Environmental Studies (AECC-2) program offered by NSOU aims to give knowledge to its learners to become responsible and sensible to his environmental footprint. Therefore the Environmental Studies (AECC-2) program offered by NSOU is it provides the effective theoretical experience to its learners and help them to analyze the environmental issues of their surrounding and the built a better future environment.

Expected Learning Outcome:

Environmental Studies (AECC-2) is a compulsory course for all bachelor degree courses/ programmes (BDP). Which aims to encourage students as well as people about surrounding livelihood and environment. It also buildup the eyes of carrying for Mother Nature. The learners of Environmental Studies (AECC-2) course are expected to be committed to their society and neighboring environment. They will build their mind as well as people of their society for concerning the environment and other global problem and their probable solution and our stands to short out them. Global problems like pollution, water crisis, sustainable use of resources, global warming and ozone layer depletion and many more.

The six-month curriculum of Environmental Studies gives the learners scopes to gain a brief and grass root level experiences which would help them know the basic environmental problems, events occur in past and possible impacts and their solution. The learners are expected to apply their knowledge in their daily livelihood and will build a better environment.

Programme Structure:

	SE M	CODE	Course Name	Theory / Prac.	Credi t	Study Hour s	TE Full Marks	Assig. Full Mark s	Total Mark s	Pass Marks 30%
1 st Ye ar	II	AE-ES-21	Environmental Studies	Theory	2	60	50	20	70	21

Examination System per semester (BA/ B.Sc./ B.Com)

Term-End Examination Dec (Odd Sem July-Dec)

Semester I	Semester III	Semester V
CC1 CC2 AECC1(Beng/ Eng) GEC1 Total credit: 20	CC5 CC6 CC7 SEC1 GEC3 Total credit: 26	CC11 CC12 DSEC1 DSEC2 Total credit: 24

Term-End Examination June (Even Sem Jan-June)

Semester II	Semester IV	Semester VI
CC3 CC4 AECC2 (ENVS) GEC2 Total credit: 20	CC8 CC9 CC10 SEC2 GEC4 Total credit: 26	CC13 CC14 DSEC3 DSEC4 Total credit: 24

Duration of Examination of each course: 2hours;

Assignment will be conducted through digital platform on MCQ

Detailed Syllabus

Credits: 2 / Marks: 70

Second Semester

Time: 2 Hours

Unit 1: Fundamentals of Environment

Definition, concepts, scope and importance of environmental studies; Components of environment; Environmental education

Unit 2: Natural Resources

Renewable and non-renewable resources:

- i) Forest resources
- ii) Water resources
- iii) Mineral resources
- iv) Energy resources
- v) Land resources

Unit 3: Ecosystem

- a) Concept and components of ecosystem; Concept on Ecology; Food chain, Food web and Ecological pyramids; Energy flow and productivity in ecosystem; Nutrient cycles
- b) Biomes: Concept, definition, types

Unit 4: Biodiversity and its conservation

- a) Biodiversity: Levels of biological diversity; Biogeographical classification of India; Values of biodiversity; Hot-Spots of biodiversity; Mega-biodiversity nations; Threat to biodiversity; Threatened and endemic species of India
- b) Conservation of biodiversity (*In-situ* and *Ex-situ*)
- c) Ecosystem services

Unit 5: Environmental Pollution

- a) Definition, cause, effects and control measures of: Air pollution, Water pollution, Soil pollution, Noise pollution, Marine Pollution, Thermal Pollution
- b) Solid waste Management: Generation, types, collection & disposal methods
- c) Disaster management: Floods, Earthquake, Cyclone and Landslides

Unit 6: Environmental Issues, Policies and Practices

- a) Global warming, Acid rain, Ozone layer depletion, Nuclear accidents,
- b) Climate change negotiation: Montreal and Kyoto Protocols
- c) Water conservation, Rain water harvesting
- d) Environmental movements (Chipko, Silent valley, Big Dam Movments)

- e) Environmental Laws: Constitutional Provisions for protecting environment- Articles 48(A), 51 A (g); Objectives & Principles of: The Environment Protection Act, 1986; The Air (Prevention and Control of Pollution) Act, 1981; The Water (Prevention and Control of Pollution) Act, 1974; The Wild Life (Protection) Act, 1972; The Forest (Conservation) Act, 1980; Biological Diversity Act, 2002

Unit 7: Human Population and the Environment

- a) Population growth, Population explosion, Family Welfare Programme
- b) Environment and human health: Common communicable and non- communicable diseases