

RKDF UNIVERSITY

BACHELOR OF SCIENCE (B.Sc.)

Name of Program : B.Sc.	Program Code: 04
Name of Group: AEC	
Name of the Course: Environmental Studies	
Course Code: AEC-111	Max. Marks :100 (External :60 + Internal 40)

Course Learning Outcomes

1. To understand various aspects of life forms, ecological Process and impact on them by the human during Anthropocene
2. To build capabilities to identify relevant environmental issues, analyze the various underlying causes, evaluate the practices and policies, and develop framework to make inform decisions.
3. To develop empathy for all life forms, awareness, and responsibility towards environmental protection and nature preservation.
4. To develop the critical thinking for shaping strategies such as: scientific, social, economic, administrative & legal, environmental protection, conservation of biodiversity, equity and sustainable development.
5. To prepare for the competitive exams.

Syllabus content

Content
UNIT-1 Environment and Natural Resources: -Multidisciplinary nature, Scope and Importance of Environment - Components of Environment: Atmosphere, Hydrosphere, Lithosphere, and Biosphere. Brief account of Natural Resources and associated problems: Land Resource, Water Resource, Energy Resource -Concept of Sustainability and Sustainable Development Biome, Ecosystem and Biodiversity:
UNIT 2 -Major Biomes: Tropical, Temperate, Forest, Grassland, Desert, Tundra, Wetland, Estuarine and Marine -Ecosystem: Structure function and type their Preservation & Restoration -Biodiversity and its conservation practices

UNIT-3 Environmental pollution, Management and Social Issues: -Pollution: Types, Control measures, Management and associated problems. -Environmental Law and Legislation: Protection and conservation Acts. -International Agreement & Programme. Environmental Movements, communication and public awareness programme. -National and international organizational related to environment conservation and monitoring. -Role of information technology in environment and human health.
UNIT-4 Ecosystem-What is an ecosystem? Structure: food chains, food webs and function of ecosystem: Energy flow in an ecosystem, nutrient cycle and ecological succession, Ecological Interactions.
UNIT-5 Environmental Management: Policies & Practices-Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. Green Politics, Earth Hour, Green Option Technologies. Environmental communication and public awareness, Role of National Green Tribunal.

Suggested Readings

1. Singh J S, Singh S P and Gupta S. R Ecology Environment science and Conservation “ S chand Publishing New Delhi
2. Divan S and Resencranz, A “ Environment Law and Policy in India “Case Material & Status” Oxford University Press India (2002) 2 Edition
3. Odum E P Fundamental of Ecology “ Philadelphia Saundres (1971)
4. Kaushik, Anubha, Kaushik C P “ Perspectives in environmental studies “ new age international publisher (2018) 6th Edition
5. Asthana D K, Asthana Meera “ A text Book of Environmental Studies” S Chand Publishing New Delhi (2007)
6. Basu, M. and Xavier, S., Fundamentals of Environmental Studies, Cambridge University Press.
7. Mitra, A. K and Chakraborty, R., Introduction to Environmental Studies, Book Syndicate.
8. Enger E. and Smith B., Environmental Science: A Study of Interrelationships, McGraw-Hill Higher Education.
9. Basu, R.N, Environment, University of Calcutta.