

CURRICULUM AND CREDIT FRAMEWORK FOR  
UNDERGRADUATE PROGRAMMES

Syllabus for

Department of Environmental Science

KOHIMA SCIENCE COLLEGE

( An Autonomous Government P.G. College)

JOTSOMA : NAGALAND

2024

## VALUE ADDED COURSES:

*Title of the Course: Environmental Science      Semester: 1    Credit : 3*

### **Unit1: Ecosystem and the Environment**

Definition, Scope and importance of Environmental science; Concept, Structure and functions of an Ecosystem; Bio-geographical classification of India; Value of biodiversity ; Need for Public awareness towards conservation.

### **Unit 2: Natural Resources:**

a. Renewable and non-renewable resources; Use and over exploitation of natural resources; Role of individual in conservation of natural resources. Population growth : Impact of human population growth on natural resources and environment; Sustainable development.

b. Environmental hazards

Definition - Hazard, vulnerability and risk; Strategies for mitigation - warning system, forecasting, emergency preparedness; Education and Training Activities, planning for Rescue and Relief works.

### **Unit 3: Environmental Pollution, Laws & Management**

a. Definition, Causes, Effects and Control/Preventive measures of Air, Water, Soil and Noise pollution.

b. Legal, administrative and constitutional provisions for environmental protection in India; Evolution and development of International Environmental laws and treaties; Concept and scope of environmental Management; Solid waste management; Waste-to-wealth technologies.

### **Suggested Readings:**

1. Bharucha Erach (ed) Text Book of Environmental Studies., University Press (India) Pvt. Ltd.
2. Bharucha Erach, 2003. The Biodiversity of India, Mapin Publishing Pvt. Ltd, Ahmedabad – 380013,
3. India Santra S.C, (ed), Environmental Science, New Central Agency Pvt Ltd. Kolkata, India.
4. Kaushik, Anubha & Kaushik, C.P. 2006. Perspectives in Environmental Studies, New Age International (P) Ltd. Publisher, New Delhi.
5. Singh Savindra 2003. Environmental Geography, Prayag Pustak Bhawan, Allahabad