

## **Bachelor of Environment Management Subject & Syllabus**

First Term	Semester 1	Life on Earth
		Scientific and Analytical Skills
		Global Environmental issues in a local context
		Environment and Community Health
		Environmental Concept
	Semester 2	Field Techniques
		Introduction to earth and marine sciences
		Sustainable Human Development
Plants and Ecology		
Second Term	Semester 3	Fisheries Biology
		Natural Resource Management
		Geographic Information System
		Ecology and Environmental Systems
	Semester 4	Environmental Impact Assessment
		Ecotourism and environmental interpretation
		Occupational Health and Safety
Third Term	Semester 5	Community Development and Education for the Environment
		Strategic Environmental Assessment & Planning
		Research Project (continuing)
	Semester 6	Research Project
		Marine pollution
		Affiliate Internship Programme

## **Syllabus**

### **Semester I**

#### **Life on Earth**

- Introduction to Environmental Management
- Environmental Science and technology
- Principles background and scope of environmental management
- Understanding of environment and measurements
- Media and people
- Decision making and applications of Environmental Science

#### **Scientific and Analytical Skills**

- Collecting and compiling of environmental data from samples of air, soil, water, food
- Analyzing samples
- Surveys
- Development plans to prevent control, or fix environmental problems

#### **Global Environmental issues in local context**

- Global Warming issues
- Climate change
- Ozone layer depletion
- Deforestation
- Various Environment protection programs
- Food Production and Equitable Distribution

#### **Environment and Community Health**

- Steps to preserve, protect and promote the health and well being of the population
- How to Reduce the risk of disease by controlling environmental hazards to human health
- Assessment and control of environmental factors

#### **Environmental Concepts**

- Environment Definition and composition
- Lithosphere

- Atmosphere
- Hydrosphere
- Biosphere

## **Semester II**

### **Field Techniques**

- Environmental Information System
- Remote Sensing and Geographical Information System
- Practical skills in field research
- Field techniques and data analysis

### **Introduction to earth and marine sciences**

- Evolution of life
- Planetary interiors
- Causes of earthquakes and volcanic eruptions
- Earth surface processes
- Oceanic and atmospheric phenomena
- Learning about Ocean, Seas

### **Sustainable Human Development**

- Learning of climate change
- disaster risk reduction
- biodiversity
- poverty reduction
- Sustainable consumption

### **Plants and Ecology**

- History of Plant and Ecology
- Glacial Climates
- Plant Life history and reproduction strategies
- Plant and Climate global change
- Diversity and distribution
- Restoration of plant communities
- Conservation of plants and plant communities

## **Semester III**

### **Fisheries Biology**

- Fisheries ecology and management
- Ichthyology, wave /tidal energy
- Fish genetics
- Fish health and nutrition
- Aquaculture
- Aquatic toxicology
- Population genetics

### **Natural Resource Management**

- land-use planning
- Conservation biology
- Energy use
- Renewable resource management
- Forest and wildlife management
- Natural resource policy

### **Geographic Information System**

- Learning of computer system for capturing, storing, checking and displaying data related to positions on Earth's surface.
- Map showing different kinds of Data
- Data Formats
- Location information latitude, longitude, address and pin code
- Landscape information
- Water supply risk issues

### **Ecology and Environmental Systems**

- Scope of Ecology
- Historical background- Ecology in India
- Interaction of Ecological factors
- Important terminology of Ecology
- Basic concepts of Ecology
- Climatic factors

## **Semester IV**

### **Environmental Impact Assessment**

- Definition and sources of pollution and Environment impact
- Types of Pollutants and their classification.
- Different types of pollution and their global, regional and local aspects

### **Ecotourism and environmental interpretation**

- Structure of the tourism industry
- Socio-cultural and ecological impacts of ecotourism
- Economic impacts and marketing of ecotourism
- local participation and benefits
- Introduction of mass tourism and alternative tourism
- The nature of ecotourism and typologies
- Nature based information on dimension, comparisons and contrasts

### **Occupational Health & Safety**

- Environmental Assessment and Management
- Factors Affecting Risk and Strategic Risk Intervention
- Applied Health and Safety and Technology
- Occupational Hygiene and Health
- Philosophy and Leadership of Occupational Safety and Health Improvement
- Management of Workplace Safety

## **Semester V**

### **Community Development and Education for the Environment**

- Environment and Ecological Principles
- Concept of Ecosystem
- Changing Man- Environment relations
- Causes and impact of Environmental imbalance

### **Strategic Environmental Assessment & Planning**

- Sector-specific policy, plan and programmes
- Spatial and land use plans
- Regional development programmes
- Natural resource management strategies
- International aids and development assistance
- Macro-economic policy

### **Research Project (continuing)**

- Journals, Presentations and Seminar Topics
- Improper waste disposal on public health
- Environment impact of oil and gas exploration and production
- Challenges of implementation of open defecation policy
- Assessment of electronic waste management

## **Semester VI**

### **Research Project**

- Ecology, biodiversity and conservation
- Environmental quality and legislation
- Environment and Society study
- Sustainable planning and regeneration

### **Marine pollution**

- Sources of pollution of surface and ground water
- Water pollution parameters - physical, chemical and biological
- Types of water pollutants
- Effects of water pollution on water bodies - eutrophication, aquatic life, vegetation and human health
- Control of water pollution

### **Affiliate Internship Programme**

- Providing support to ongoing projects
- Conducting research on newer/emerging topics
- Support the base work in preparation for anticipatory assignments under the various research and consulting verticals
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

### **Internship Details**

Environment management internship tasks include planning, promotion, logistics, client relations, and on-the-day support. Having job experience and a global perspective is an invaluable asset in the field of events, and will set you apart from other graduates.

Candidates can be employed as follows:

- Environmental Scientist
- Environmental Consultant
- Environmental Science Manager
- Lecturer
- Wildlife Film-maker
- Environment Journalists
- Conservation Hydrologist

## **Placement Opportunity**

Our Department has a dedicated member of staff in charge of placements, who can provide the students with advice and support. Most environmental Managers are employed by:

**Bachelor of Environment Management students can lead to a wide range of career opportunities in the below Sectors.**

- Industries
- Social Development.
- Research and Development.
- Forest and Wildlife Management.
- NGOs.
- Pollution Control Boards.
- Urban Planning.
- Water Resources and Agriculture.