

Environment Management - Web course

COURSE OUTLINE

Environmental management (EM) has become one of the most used terms in recent times.

But, what exactly does the term mean and entail? Different individuals belonging to different disciplines approach EM differently and therefore it is difficult to find a single, comprehensive view of EM.

However, we will discuss in detail the various issues relating to EM in the ten Units that constitute this Course.

We will first discuss the fundamentals of EM and ecosystem in Unit 1 and, subsequently, the various environmental policies, legislations and international treaties in Unit 2.

In Units 3 and 4, we will deal with the concept of environmental impact assessment (EIA) and the preparation of EIA report, respectively.

We will discuss the methodology and processes of environmental auditing in Unit 5.

In Unit 6, we will introduce you to life cycle assessment (LCA) in the context of EM.

In Unit 7, we will explain the various EM system standards.

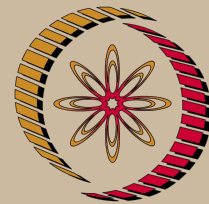
We will then take up the issues and techniques relating to EM in Unit 8.

Finally, we discuss environmental design and economics in Units 9 and 10, respectively.

COURSE DETAIL

A video course shall consist of 40 or more lectures with 1 hour duration per lecture.

S.No	Topics
1	Principles of Environmental Management.
2	Ecosystem Concepts.
3	Environmental Concerns in India.
4	Policy and Legal Aspects of EM.
5	Introduction to Environmental Policies.
6	Environmental Laws and Legislations.



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<http://npTEL.iitm.ac.in>

Environmental Science

Pre-requisites:

Basic knowledge in science and mathematics.

Additional Reading:

- Ramachandra T.V., 2006. Management of Municipal Solid Waste, Commonwealth Of Learning, Canada and Indian Institute of Science, Bangalore.
- Ramachandra T.V., 2006. Soil and Groundwater Pollution from Agricultural Activities, Commonwealth Of Learning, Canada and Indian Institute of Science, Bangalore.
- Vijay Kulkarni and Ramachandra T.V., 2006. Environmental Management, Commonwealth Of Learning, Canada and Indian Institute of Science, Bangalore.

Hyperlinks:

- www.ces.iisc.ernet.in/energy
- www.wgbis.ces.iisc.ernet.in
- www.ces.iisc.ernet.in/biodiversity
- www.astra.iisc.ernet.in

Coordinators:

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7	Environmental Legislations in India.
8	Environmental Impact Assessment (EIA).
9	Impact Prediction, Evaluation and Mitigation.
10	Forecasting Environmental Changes.
11	Strategic Environmental Assessment (SEA).
12	Environmental Clearance Procedure in India.
13	EIA Documentation and Processes.
14	EIA Monitoring and Auditing.
15	Environmental Auditing.
16	Elements of Audit Process.
17	Waste Audits and Pollution Prevention Assessments.
18	EA in Industrial Projects.
19	Liability Audits and Site Assessment.
20	Auditing of EM.
21	Life Cycle Assessment (LCA).
22	Stages in LCA of a Product.
23	Procedures for LCA.
24	Different Applications of LCA.
25	Environmental Management System Standards.
26	EMS Standards: ISO 14000.
27	Implementation of EMS Conforming to ISO 14001.



28	Environmental management techniques.
29	Application of Remote Sensing and GIS in EM.
30	Ecosystem approach to risk assessment.
31	Environmental Design.
32	ED for Manufactured Products.
33	ED for Buildings.
34	ED for Developmental Planning.
35	Environmental Economics.
36	Economics and the Environment.
37	Environmental Valuation.
38	Economics of Natural Resources.
39	Environmental and Regional Economics.
40	Ecological Economics.

References:

Vijay Kulkarni and Ramachandra T.V., 2006. Environmental Management, Commonwealth Of Learning, Canada and Indian Institute of Science, Bangalore.