

# GUJARAT TECHNOLOGICAL UNIVERSITY

## Environmental Engineering

M.E. Semester: IV

Subject Name: **Environmental Legislations and Management**

Sr. No.	Course Content
1.	<b>Environmental policies and programmes of the Government of India :</b> Provisions made in the Indian Constitution for Environmental Protection. Duty of citizens
2.	<b>Environmental Legislations :</b> Need for environmental legislation, National and state level legislation for prevention of air water and land pollution. All Rule related Environmental Rules related Environmental Protection enacted in India .
3.	<b>Pollution Control Boards :</b> Functions of water and air pollution control boards of national and state level , difficulties encountered in enforcing legislation, Environmental pollution monitoring.
4.	<b>Environmental Audit :</b> Objectives, Concepts, Methodologies and benefits.
5.	<b>International Standards For Environmental management :</b> ISO – 14000 s Introduction to ISO and Detail ISO 14001 to 14060 Etc.
6.	<b>Introduction to Environmental Impact Analysis:</b> Terms-environmental: ,Impact and assessment, concept of EIA, Environmental settings, Prediction and assessment of impact on physical, biological and socio-economic environment.
7.	<b>Methods of Analysis of Impacts on Environment :</b> Various methods used in EIA : Adhoc , Checklist, Matrix, Network, environmental Media quality Index Method, Cost Benefit Analysis,
8.	<b>Public Participation in Environmental Management :</b> Concept, Public hearing procedure and guidelines Practical Considerations Economic development and environmental degradation. Practical consideration in impact assessment.

### List of Experiments:

1. Exercise shall consist of simple system of Indian Legislations
2. exercise on slightly more complex on Indian Policy
3. Exercises to be given in the order of followings in subsequent turns  
On Environmental Legislations
4. Exercise on Delphi technique for assigning significance to Environmental Attributes

5. Exercise on IMPASS game using example of EIA of Engineering Project
6. Exercise on Adhoc Method of EIA
7. Exercise on, Matrices, Method of EIA
8. Exercise on, Network, Method of EIA
9. Exercise on, Overlays c Method of EIA
10. Visit to a Project site/ Office of EIA expert
11. Collection data of Environmental attributes of project ongoing nearby
12. A report of EIA is to be prepared by a student on the project of his specialization

### **Reference Books:**

1. Pollution Control Acts, Rules and Notification Thereunder : Published by central pollution control board 2004 onwards
2. Environmental Law and Policy In India by Armin Rosencranz, Shyam Diwan and Martha I Noble Tripathi publisher in association with The book review Literary Trust , New Delhi
3. Environmental Impact Assessment by Canter - McGraw Hill
4. Environmental Law by Bouwer - McGraw Hill
5. Environmental Impact Analysis by R.K. Jain, L.V. Urban, G.S. Stacey - Van Nostrand Reinhold, New York
6. Environmental Impact Analysis – Handbook by John G. Ray and David C. Wooten