



GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Environmental Engineering

Level: PG

Branch: Environmental Management

Subject Code: ME02018071

Subject Name: Environmental Legislation and Audit

w.e.f. Academic Year:	2024-25
Semester:	2
Category of the Course:	Professional Elective Course

Prerequisite:	Basic understanding of environmental science, including basic environmental management principles
Rationale:	The Environmental Legislation & Audit course is designed to provide students with in-depth knowledge of environmental laws, regulatory frameworks, and auditing processes critical to sustainable management practices

Course Outcome:

After Completion of the Course, Student will able to:

No.	Course Outcomes
01	Explain the constitutional and legal provisions relevant to environmental protection, both nationally and internationally
02	Apply environmental laws, such as the Water (Prevention & Control of Pollution) Act, 1974, and the Environment (Protection) Act, 1986 in field.
03	Evaluate the impact of international agreements like the Kyoto Protocol and Paris Agreement on national environmental policies and practices
04	Understand the role of Green tribunal act in India for Environment justice.
05	Conduct environmental audits, including pre-audit and post-audit activities, and generate comprehensive audit reports

Teaching and Examination Scheme:

Teaching Scheme(in Hours)			Total Credits L+T+(PR/2)	Assessment Pattern and Marks				Total Marks
L	T	PR		C	Theory		Tutorial/Practical	
			ESE (E)		PA/ CA (M)	PA/CA(I)	ESE (V)	
3	0	2	4	70	30	20	30	150

Course Content:



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Unit No.	Content	No. of Hours	% of Weightage
PART A: Environmental Legislation			
1	Introduction: An introduction to the legal system; Constitution: Important articles related to Environment, Acts, Rules, Regulations; Indian Judiciary, Doctrine of precedents, judicial review, Writ petitions, PIL– liberalization of the rule of locus standi, Judicial activism. Introduction to environmental laws in India; Constitutional provisions, Stockholm conference; Bhopal gas tragedy; Rio conference. General principles in Environmental law: Precautionary principle; Polluter pays principle; Sustainable development; Public trust doctrine. Overview of legislations and basic concept.	4	5%
2	Pollution Control Laws: The Water (Prevention & Control of Pollution) Act, 1974 – The Air (Prevention & Control of Pollution) Act, 1981 – The Environment (Protection) Act, 1986.	14	45 %



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3	National & International Environmental Rules & Regulations: Biomedical Waste Management Rules, 2016 - Solid Waste Management Rules, 2016 - Hazardous And Other Wastes (Management and Transboundary Movement) Rules, 2016 - Plastic Waste Management Rules, 2016 - E-waste (Management) Rules, 2016 - -Construction and Demolition Waste Management Rules, 2016 - - Coastal Regulation Zone Notification, 2011 - Noise Pollution (Regulation and Control) Rules, 2000. United nations frame work on climate change , Kyoto protocol , Paris agreement & climate justice , Basel convection , Financial mechanisms and technology transfer	12	30 %
4	The National Green Tribunal Act, 2010 Extended Producers Responsibility (EPR) Guidelines in India	4	5 %
PART B: Environmental Audit			
	Philosophy of Environmental Audit, Definitions, Benefits, Objectives. Audit Procedures: Pre-Audit Activities, Activities at site and Post audit activities, Water balance & material balance, Environmental adequacy for EMS , Contents of Audit report.	8	15 %

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	40	30	20	00	00

Where R:Remember; U:Understanding; A:Application, N:Analyze and E:Evaluate C:Create(as per Revised Bloom's Taxonomy)



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References/Suggested Learning Resources:

(a) Books:

1. Divan S. and Rosencranz A. (2005) *Environmental Law and Policy in India*, 2nd ed., Oxford, New Delhi
2. Leelakrishnan P. (2008) *Environmental Law in India*, 3rd ed., Lexis Nexis, India.
3. Pollution Control Acts, Rules & Notifications issued thereunder , CPCB (2021).
4. Divan S. and Rosencranz A. (2005) *Environmental Law and Policy in India*, 2nd ed., Oxford, New Delhi
5. Leelakrishnan P. (2008) *Environmental Law in India*, 3rd ed., Lexis Nexis, India.
6. Commentary on Environmental Legislation: By Lal
7. Environmental Legislation: V Krishnamurti
8. Environmental Auditing at a Glance - GPCB Publication

(b) Open sources of software and website:

Moef&CC , GPCB , CPCB, NPTEL

Suggested Course Practical List:

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List of Laboratory/Learning Resources Required:

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Suggested Activities for Students:

- Case study related to major environmental protection movements
