

GUJARAT TECHNOLOGICAL UNIVERSITY

BRANCH NAME:ENVIRONMENTAL MANAGEMENT
SUBJECT NAME : PREVENTIVE ENVIRONMENTAL MANAGEMENT
SUBJECT CODE: 3711809
M.E. 1stSEMESTER

Type of course: Applied science and management

Prerequisite: Knowledge of environmental laws and policies

Rationale: Knowledge of preventive practices is essential to avoid the treatment and curative strategies.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE(E)	PA (M)	PA (V)	PA (I)	
3	0	2	4	70	30	30	20	150

Content:

Sr. No.	Content	Total Hrs	% Weightage
1	Introduction <ul style="list-style-type: none">The environment in the context of 21st centuryPresent status of India's Environment	04	10
2	Indian Environmental Policy : Frame work and Implementation <ul style="list-style-type: none">Current environmental laws in India	04	10
3	Preventive Environmental Management Tools <ul style="list-style-type: none">Environmental AuditEnvironmental Impact AssessmentLife Cycle AnalysisInventorization and Environmental Management system	14	34
4	Preventive Environmental Management Initiatives <ul style="list-style-type: none">Cleaner ProductionGreen chemistry and cleaner technologiesGreen choices in process IndustriesRedesigning of unit operations and unit processesRecycle and Reuse of waste waterEco-industrial networkCDM as preventive Environmental management initiative	18	41
5	Relationship between industry and environment	02	5

Books:

1. Preventive Environmental Management: An Indian Perspective by Dr. Shyam R. Asolekar & Dr. R. Gopichandran
2. Cleaner Production Strategies : Developing preventive Environmental Management by Tim Jackson published by Lewis publishers
3. Practical guide to Environmental Management 9th edition by Frank B Friedman

Course Outcome:

After learning the course the students should be able to:

1. Gain knowledge of environmental policy of India and current environmental laws.
2. Understand and apply the different preventive tools like environmental audit, EIA and Life Cycle Assessment.
3. Undertake and implement preventive environmental initiatives like Cleaner production, Green chemistry, Recycle and reuse of wastewater

List of Tutorials:

1. Assignments on the questions related to Current environmental laws, Indian Environmental policy, Environmental audit, EIA, Life Cycle Analysis, Cleaner Production, Recycle and reuse of wastewater.
2. Case studies on the Environmental Management Issues