



Gyanmanjari
Innovative University

Course Syllabus
Gyanmanjari Institute of Technology
Semester-5 (B.Tech.)

Subject: Environmental Impact Assessment– BETCH15317

Type of course: Professional Elective Courses

Prerequisite: NIL

Rationale: To provide a broad understanding of environmental auditing and environmental impact assessment and impart knowledge about the increasing importance of corporate social responsibility.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks					Total Marks
CI	T	P	C	Theory Marks		Practical Marks		CA	
				ESE	MSE	V	P	ALA	
3	0	0	3	60	30	10	0	50	150

Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.

Course Content:

Sr. No.	Course content	Hrs.	Weightage
1	Introduction to EIA & Audit, Environment & Industries, Input information, Plant Operation, Environmental Management planning, Waste Streams impact on water bodies. Environmental Impact Assessment planning. Activities, Methodology for Environmental Impact Assessment, Role of Environmental Engineering firm, Role of Regulatory agencies & control boards, Requirement of environment audit statement, Role of the Public. Study of environment protection rules 1986 and its amendment in 1993	10	30%
2	Environmental Audit: Introduction, Environmental information Purpose & advantage of studies, General approach of environmental Auditing Environmental Audit, Types of Environmental Audit, Auditing Procedures and Methods, Audit programs in India, Auditing program in major	15	20%



	polluting Industries, Reports of the Environmental audit studies.		
3	Pollution prevention and control laws & acts: Constitution of India & environment, Constitution protection to Environment laws, Administrative & legislative arrangement for Environmental production, Indian Standards, Pollution control acts in India, critical appraisal, fiscal incentives for environmental protection. Environmental Clearance process in India - Key Elements in 2006 EIA (Govt. of India) Notification	10	30%
4.	Guidelines of preparation of project report and its evaluation; methods of clearance from the concern authorities at various labels. Standards for Water, Air and Noise Quality - Environmental Management Plan- EIA- Case studies of EIA	10	20%

Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1.	Parameters of EIA report of any Chemical Industry: Collect EIA report of any chemical industries and Prepare a list of important factors as per your understanding of EIA report.	10
2.	Presentation on EIA Laws of Gujrat: Make a Presentation on different laws and acts related to environmental protection in Gujrat	10
3.	Draft Preparation of EIA of Chemical Industry: Prepare draft for EIA for any chemical industry and submit on GMIU portal	10
4.	Green Energy and EIA: Prepare short communications on Indian green hydrogen mission and its future scope based on current situation and upload on GMIU portal.	10
5.	Hydro-ecological Assessment study: What is Environmental flow assessment and how its important for the ecology of the river specific to rivers in Gujarat, make a report and submit on GMIU portal	10
Total		50

Suggested Specification table with Marks (Theory): 60

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	40%	40%	20%	0%	0%	0%



Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from the above table.

Course Outcome:

After learning the course, the students should be able to:	
CO1	Understand the different steps within environmental impact assessment.
CO2	Understand environmental auditing and describe the main components of the environmental auditing process.
CO3	Identify methods for auditing specific environmental issues associated with the activities of an organization and product/service.
CO4	Assess critically the use and application of environmental auditing.

Instructional Method:

The course delivery method will depend upon the requirement of content and needs of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done based on Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

Reference Books:

- [1] A K Srivastava, Environment impact Assessment, APH Publishing
- [2] John Glasson, Riki Therivel & S Andrew Chadwick "Introduction to EIA" University College London Press Limited
- [3] Larry W Canter, "Environmental Impact Assessment", McGraw Hill Inc. , New York,

