



DEPARTMENT OF CIVIL ENGINEERING

COURSE PLAN – PART I			
Name of the programme and specialization	M. Tech, Environmental Engineering		
Course Title	ENVIRONMENTAL IMPACT ASSESSMENT		
Course Code	CE717	No. of Credits	3
Course Code of Pre-requisite subject(s)			
Session	January	Section (if, applicable)	NA
Name of Faculty	Dr. Aneesh Mathew	Department	Civil Engineering
Official Email	aneesh@nitt.edu	Telephone No.	8502932688
Name of Course Coordinator(s) (if, applicable)			
Official E-mail		Telephone No.	
Course Type (please tick appropriately)	<input type="checkbox"/> Core course <input checked="" type="checkbox"/> Elective course		
Syllabus (approved in BoS)			
<p>Evolution of EIA - Concepts - Rapid and Comprehensive EIA - Legislative and Environmental Clearance Procedures in India Screening - Scoping - Base Line Studies - Methodologies - Check List - Matrices - Mitigation - Prediction Tools for EIA - Assessment of Impacts - Air - Water - Soil - Noise - Biological - Socio Cultural Environment - Public Participation - Resettlement and Rehabilitation - Documentation of EIA - Environmental Management Plan - Post Project Monitoring - Environmental Audit - Life Cycle Assessment – Environmental Management Systems - Case Studies in EIA.</p> <p>References</p> <ol style="list-style-type: none"> 1. Canter R. L., Environmental Impact Assessment, Mc Graw Hill International Edition, 1997. 2. John G. Rau and David C. Wooten (Ed), Environmental Impact Analysis Handbook, McGraw Hill Book Company, 1980. 			
COURSE OBJECTIVES			
<ol style="list-style-type: none"> 1. To learn the importance of environmental impact assessment in various engineering projects 2. To brief the various methodologies involved in environmental impact assessment 3. To identify the prediction tools for the assessment of different environmental impacts 4. To describe the concepts of environmental management system 			



MAPPING OF COs with POs	
Course Outcomes	Programme Outcomes (PO) (Enter Numbers only)
1. To analyze the environmental impacts of proposed projects	1,2,3,4,5,6,7,8,9,10,11
2. To predict the magnitude of an impact using mathematical tools	1, 2, 3, 4, 5, 9, 11
3. To propose proper mitigation measures to avoid environmental impacts	1,2, 3,4,6,7,8,9,10,11
4. To summarize the EIA report with suitable environmental management plan	1,2,4,6,7,8,10,11

COURSE PLAN – PART II			
COURSE OVERVIEW			
This course primarily focusses on various environmental impacts of proposed projects. EIA Methodologies, Prediction Tools for EIA, Assessment of Impacts, Mitigation Measures, Environmental Management Plan will also be explained in the course in detail.			
COURSE TEACHING AND LEARNING ACTIVITIES			
S.No.	Week/Contact Hours	Topic	Mode of Delivery
1	Week1	Introduction, Basic Concept of EIA, EIA Procedure, Screening, Scoping - Base Line Studies Preparation of Environmental Base Map, Identification of Study Area, Classification of Environmental Parameters, Preparation of an EIA Report	PPT/ Digital Writing Pad
2	Week 2		
3	Week 3	Rapid and Comprehensive EIA, Legislative and Environmental Clearance Procedures in India	PPT/ Digital Writing Pad
4	Week 4	Criteria for the Selection of EIA Methodology -Methodologies - Check List – Matrices-Adhoc-Network-Overlay-Index-Cost benefit methods	PPT/ Digital Writing Pad
5	Week 5		
6	Week 6	Predictive Models for Impact Assessment	PPT/ Digital Writing Pad



7	Week 7	Prediction and Assessment of Impacts on Soil and Ground Water Environment, Prediction and Assessment of Impacts on Surface Water Environment	PPT/ Digital Writing Pad
8	Week 8		
9	Week 9	Prediction and Assessment of Impacts on Biological Environment	PPT/ Digital Writing Pad
10	Week 10	Prediction and Assessment of Impacts on the Air and Noise Environment	PPT/ Digital Writing Pad
11	Week 11		
12	Week 12	Prediction and Assessment of Impacts of Socio-Economic and Human Health Impacts, Public Participation	PPT/ Digital Writing Pad
13	Week 13	Documentation of EIA - Environmental Management Plan	PPT/ Digital Writing Pad
14	Week 14	Environmental Audit - Life Cycle Assessment – Environmental Management Systems	PPT/ Digital Writing Pad
15	Week 15	Mitigation Measures and Various Case Studies in EIA	PPT/ Digital Writing Pad
16	Week 16		

COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Assessment 1	Week 6	1 Hour	20
2	Assessment 2	Week 12	1 Hour	20
3	Assignments, Quizzes and Seminars	As per deadlines	Assignments are to be submitted with	30



			in 1-week duration	
CPA	Compensation Assessment*	Week 15	1 Hour	20
4	Final Assessment *	Week 17/18	2 Hour	30

***mandatory; refer to guidelines on page 4**

COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)

It is proposed to take feedback from the students, at the end of the semester to evaluate the execution of the course.

COURSE POLICY (including compensation assessment to be specified)

Mode of Correspondence:

Mode of correspondence would be through phone/ E-mail to the class representative and vice versa.

Compensation Assessment Policy:

Retest will conduct to those students who have missed Cycle Test on genuine grounds. The portions of the retest will include the portions covered till the date.

ATTENDANCE POLICY (A uniform attendance policy as specified below shall be followed)

- At least 75% attendance in each course is mandatory.
- A maximum of 10% shall be allowed under On Duty (OD) category.
- Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.

ACADEMIC DISHONESTY & PLAGIARISM

- Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
- Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
- The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.



NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

- The above policy against academic dishonesty shall be applicable for all the programmes.

ADDITIONAL INFORMATION, IF ANY

For any queries or doubt clarification, students are free to contact through E-mail aneesh@nitt.edu or Via Phone.

FOR APPROVAL

Dr. Aneesh Mathew
Course Faculty

Dr. R. Manjula
CC- Chairperson

Dr. G. Swaminathan
HOD



Guidelines

- a) The number of assessments for any theory course shall range from 4 to 6.
- b) Every theory course shall have a final assessment on the entire syllabus with at least 30% weightage.
- c) One compensation assessment for absentees in assessments (other than final assessment) is mandatory. Only genuine cases of absence shall be considered.
- d) The passing minimum shall be as per the regulations.

B.Tech. Admitted in				P.G.
2018	2017	2016	2015	
35% or (Class average/2) whichever is greater.		(Peak/3) or (Class Average/2) whichever is lower		40%

- e) Attendance policy and the policy on academic dishonesty & plagiarism by students are uniform for all the courses.
- f) Absolute grading policy shall be incorporated if the number of students per course is less than 10.
- g) Necessary care shall be taken to ensure that the course plan is reasonable and is objective.