

Name of Institute: Indus Institute of Technology & Engineering
Name of Faculty: Prof. Ketan V. Lakhtaria

Course code: CV0787

Course name: Environmental Impact Assessment

Pre-requisites: Environmental Science, Environmental Engineering

Credit points: 03

Offered Semester: VIII

Course Coordinator

Full Name: Ketan Lakhtaria

Department with siting location: Civil-3rd floor staff room, Bhanvar building

Email: ketanlakhtaria.cvl@indusuni.ac.in

Consultation times: 4.25 to 4.55 pm

Students will be contacted throughout the Session via Mail / Google classroom with important information relating to this Course.

Course Objectives

This course introduces the methodology of environmental impact assessment (EIA) as a vital tool for sound environmental management and decision-making. The course provides an overview of the concepts, methods, issues and various forms and stages of the EIA process.

Course Outcomes (CO)

On successful completion of course student will be able to,

1. Identify the environmental attributes to be considered for the EIA study
2. Formulate objectives of the EIA studies
3. Understand strengths & limitations of environmental management
4. Interpret options for evaluating environmental and social impacts
5. Identify the methodology to prepare rapid EIA
6. Prepare EIA reports and environmental management plans

Course Outline

After studying this subject, students will be aware about our impacts of anthropogenic activities on environment related problems and assessment of impacts for sustainable development

Method of delivery

70% of Lectures consist of Face to face lectures , 20% of lectures comprise of PowerPoint Presentation through which various videos and images of related topics are shown to the students, and 10% of lectures consist of hands on session.

Study time

2 hours of lectures (theory) per week and 1 hour tutorial.

CO-PO Mapping (PO: Program Outcomes)

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	2	--	--	--	1	3	--	--	--	--	--
CO2	-	--	3	--	--	2	1	--	--	--	--	--
CO3	-	3	--	--	--	--	2	--	--	--	1	--
CO4	--	--	--	--	--	1	3	--	--	--	--	2
CO5	--	--	2	--	--	1	--	--	--	3	--	--
CO6	-	--	--	--	--	--	2	1	--	--	--	3

1-Lightly Mapped 2- Moderately Mapped 3- Highly Mapped

Blooms Taxonomy and Knowledge retention (For reference)

(Blooms taxonomy has been given for reference)

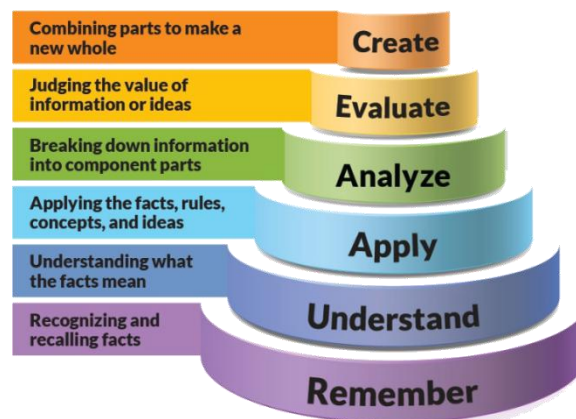


Figure 1: Blooms Taxonomy

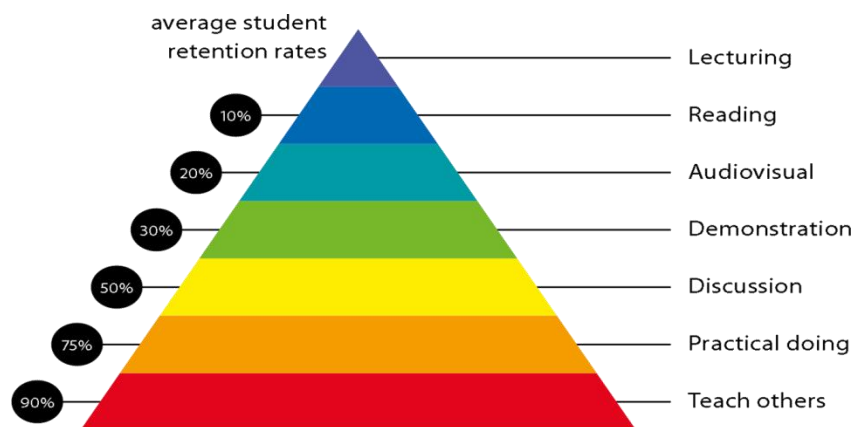


Figure 2: Knowledge retention

Graduate Qualities and Capabilities covered

(Qualities graduates harness crediting this Course)

General Graduate Qualities	Department (All) Graduate Capabilities
Informed Have a sound knowledge of an area of study or profession and understand its current issues, locally and internationally. Know how to apply this knowledge. Understand how an area of study has developed and how it relates to other areas.	Professional knowledge & awareness
Independent learners Engage with new ideas and ways of thinking and critically analyze issues. Seek to extend knowledge through ongoing research, enquiry and reflection. Find and evaluate information, using a variety of sources and technologies. Acknowledge the work and ideas of other.	Gathering & processing current environmental issues
Problem solvers Take on challenges and opportunities. Apply creative, logical and critical thinking skills to respond effectively. Make and implement decisions. Be flexible, thorough, innovative and aim for high standards.	Problem solving skills
Effective communicators Articulate ideas and convey them effectively using a range of media. Work collaboratively and engage with people in different settings. Recognize how culture can shape communication.	Written and Oral communication. Teamwork
Responsible Understand how decisions can affect others and make ethically informed choices. Appreciate and respect diversity. Act with integrity as part of local, national, global and professional communities.	Understand and act for Sustainability & environmental impact. Be responsible for bringing environmental awareness in society

Lecture/tutorial times

(Give lecture times in the format below)

Lecture 1: Lecture 2: Tutorial :

Attendance Requirements

The University norms states that it is the responsibility of students to attend all lectures, tutorials, seminars and practical work as stipulated in the Course outline. Minimum attendance requirement as per university norms is compulsory for being eligible for mid and end semester examinations.

Reference Books:

- Rau Whooten, “Environmental Impact Analysis Handbook”; McGraw Hill publications
- Larry Canter, “Environmental Impact Assessment” McGraw Hill publications
- R K Jain, “Environmental Impact Analysis – A Decision Making Tool”
- Judith Petts “Handbook of Environment Impact Assessment”, McGraw Hill Publications
- John Glasson, Riki Therivel and Andrew Chadwick, “Introduction to Environmental Impact Assessment”, Third Edition
- Y. Anjaneyulu, “Environmental Impact Assessment Methodologies”, B.S. Publication

ASSESSMENT GUIDELINES

Your final course mark will be calculated from the following:

Example:	
MSE	40Mark (week 8)
Assignments / Quiz	10 Mark
Attendance/Behaviour/Presentation	10 Mark

SUPPLEMENTARY ASSESSMENT

Students who receive an overall mark less than 40% in mid semester or end semester will be considered for supplementary assessment in the respective components (i.e mid semester or end semester) of semester concerned. Students must make themselves available during the supplementary examination period to take up the respective components (mid semester or end semester) and need to obtain the required minimum 40% marks to clear the concerned components.

Late Work

Late assignments will not be accepted without supporting documentation. Late submission of the reports will result in a deduction of -% of the maximum mark per calendar day

Format

All assignments must be presented in a neat, legible format with all information sources correctly referenced. **Assignment material handed in throughout the session that is not neat and legible will not be marked and will be returned to the student.**

Retention of Written Work

Written assessment work will be retained by the Course coordinator/lecturer for two weeks after marking to be collected by the students.

University and Faculty Policies

Students should make themselves aware of the University and/or Faculty Policies regarding plagiarism, special consideration, supplementary examinations and other educational issues and student matters.

Plagiarism - Plagiarism is not acceptable and may result in the imposition of severe penalties. Plagiarism is the use of another person's work, or idea, as if it is his or her own - if you have any doubts at all on what constitutes plagiarism, please consult your Course coordinator or lecturer. Plagiarism will be penalized severely.

Do not copy the work of other students.

Do not share your work with other students (except where required for a group activity or assessment).

Course schedule (subject to change)

Week #	Topic & contents	CO Addressed	Teaching Learning Activity (TLA)
Week 1	Introduction to Environment, Resource Management and Sustainable Development.	CO-1	Chalk-Board, GD
Week 2	Environment Pollution and Quality, Environmental Protection Acts, Rules, Regulations and Standards. Purpose aim and need of EIA. Indian policies requiring EIA.	CO-1	Chalk-Board, PPT
Week 3	The EIA cycle and procedures, screening, scoping, baseline data, impact prediction, assessment of alternatives.	CO-2, CO-3	Chalk-Board, PPT
Week 4	Delineation of mitigation measure and EIA report, public hearing, decision making, monitoring the clearance Conditions.	CO-2, CO-3	Chalk-Board, PPT
Week 5	List of projects requiring Environmental clearance, application form, Ecological sensitive places, and International agreements.	CO-3	Chalk-Board, PPT
Week 6	Reporting of EIA: Guidelines for Effective EIA Report Preparation, Elements of an EIA report.	CO-4, CO-5	Chalk-Board, presentation by students
Week 7	Environmental Monitoring and Audit: Objectives, Scope and Development of Environmental Management System,	CO-4, CO-5	Chalk-Board, presentation by students
Week 8	Environmental management Plan, Environmental Impact Statement (EIS)	CO-3	PPT
Week 9	EIA Methodologies: Environmental attributes-Criteria for the selection of EIA methodology, impact identification, impact measurement, impact interpretation & Evaluation, impact communication.	CO-5	Chalk-Board, PPT
Week 10	Methods- Adhoc methods, Checklists methods, Matrices methods, Networks methods, Overlays methods.	CO-5	Chalk-Board, PPT
Week 11	Inception and Evolution of Environmental Impact Assessment in the World and in India and the Environmental Clearance Process in the Country	CO-1	Chalk-Board, presentation by students

Week 12	Prediction and Assessment of Impacts on Environmental Attributes of Air and Noise	CO-4,CO-5, CO-6	Chalk-Board, PPT
Week 13	Prediction and Assessment of Impacts on Environmental Attributes of Water	CO-4,CO-5, CO-6	Chalk-Board, PPT
Week 14	Prediction and Assessment of Impacts on Environmental Attributes of for Socio-economic; Cultural & Biological.	CO-4,CO-5, CO-6	Chalk-Board, Presentation by students
Week 15	Case studies and preparation of Environmental Impact assessment statements for various Industries.	Cv5CO-6	Presentation by students

SEMESTER-WISE SUBJECT DEPENDENCY CHART (CIVIL DEPARTMENT) (2019-2020)

