

Subject Name: Environmental Impact Assessment		L	T	P	C
Subject Code OECE-105	Total contact hours: 36	3	0	0	2
Branch: Civil Engg.					
Prerequisite: Environmental Sciences and Management Skills.					
Max. Marks (100)					
Internal- (40)		External- (60)			
Course Objective					
To Impart knowledge of atmospheric Pollution control (Air &Soil), with new mitigation technique.					

After completing this course, the students will demonstrate the knowledge and ability to:

<i>COs</i>	<i>COURSE OUTCOMES</i>
1	<i>Identify different aspects related to EIA</i>
2	<i>Understand the implications related to large scale development projects.</i>
3	<i>Apply the knowledge gained through the subject to assess the feasibility of a project</i>
4	<i>Analyse the profitability of a project in terms of environment.</i>
5	<i>Identify the suitable measures and will be able to prepare a plan for rapid EIA.</i>
6	<i>Create a plan for environmental impact of a development project.</i>

Detailed Course Content:

Introduction to EIA: Historical development of Environmental Impact Assessment (EIA). EIA in Project Cycle. Legal and Regulatory aspects in India. – Types and

limitations of EIA – Cross sectorial issues and terms of reference in EIA – Public Participation in EIA. EIA Process screening –scoping- setting – analysis – mitigation

Components and methods for EIA: Matrices – Networks – Checklists – Connections and combinations of processes – Cost benefit analysis – Analysis of alternatives.

Socio-economic impact Assessment: Definition, Social impact Assessment model and the planning process. Rationale and measurement for SIA variables, Relationship between social impacts and change in Community and Institutional arrangements. Individual and family level impacts. Communities in transition - neighborhood and Community impacts. Selecting, testing and understanding significant social impacts. Mitigation and enhancement in social assessment. Environmental costing of Projects.

Environmental Management Plan - preparation, implementation and review – Mitigation and Rehabilitation Plans – Policy and guidelines for planning and monitoring programs – Post Project audit – Ethical and Quality aspects of Environmental Impact Assessment

Environmental Protection Act: The EPA, The Water Act, The Air Act, Case Studies and preparation of environmental impact assessment statement for various industries.

TEXT BOOKS:

1. **Larry Canter-** EIA McGraw Hill Publications.
2. Environmental Impact Assessment, Barthwal, R. R. New Age International Publications.

RECOMMENDED BOOKS:

1. Lawrence, D.P., Environmental Impact Assessment – Practical solutions to current problems, Wiley-Interscience, New Jersey, 2003.
2. World Bank –Source book on EIA
3. Petts, J., Handbook of Environmental Impact Assessment, Vol., I and II, Blackwell Science, London, 1999.
4. Canter, L.W., Environmental Impact Assessment, McGraw Hill, New York. 1996