



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Technology and Science
Choice Based Credit System (CBCS) in Light of NEP-2020
Civil Engineering Department
Generic Elective (Postgraduate Programs)
2024

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME									
			THEORY			PRACTICAL			L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*					
GPCE301	GE	Environmental Impact Assessment and Audit	60	20	20	0	0	3	0	0	3	

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit.

***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objectives (CEOs):

The student will be able to learn various aspects of Environment Impact Assessment (EIA) methodologies and impact of development activities.

Course Outcomes (COs):

The 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. Identify the suitable methodology and prepare Rapid EIA.
4. Identify and incorporate mitigation measures.

Syllabus:

UNIT I

07 Hrs.

Basic concept of EIA; Initial environmental Examination; Elements of EIA; Factors affecting EIA; Impact evaluation and analysis, preparation of Environmental Base map, Classification of environmental parameters.

UNIT II

08 Hrs.

Introduction of EIA Methodologies; Criteria for the selection of EIA Methodology; EIA methods; Ad-hoc methods, matrix methods, Network method Environmental Media Quality Index method, overlay methods; cost/benefit Analysis.

UNIT III

08 Hrs.

Assessment of Impact of development activities on vegetation and wildlife; Environmental Impact of Deforestation, causes and effects of deforestation; Procurement of relevant soil quality, Impact prediction, Assessment of Impact significance, Identification, and Incorporation of mitigation measures.

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UNIT IV

09 Hrs.

Objectives of Environmental Audit; Types of environmental Audit; Audit protocol; Stages of Environmental Audit, Onsite activities, Evaluation of audit data and preparation of audit report, Post Audit activities.

UNIT V

08 Hrs.

The Environmental Protection Act; The water Act; The Air (Prevention & Control of pollution Act.); Motor Act; Wildlife Act; Case studies and preparation of Environmental Impact Assessment statement for various industries.

Textbooks:

1. Environmental Impact Assessment: Theory and Practice by Reddy, BS Publications, 2016.
2. Environmental Impact Assessment by Barthwal R. R. New Age International Publications, 2012.

Reference Books:

1. Environmental Impact Assessment by Larry Canter, McGraw-Hill Publications.
2. Environmental Impact Assessment Methodologies by Anjaneyulu Yerramilli, Valli Manickam, BS Publications, 2020.
3. A Handbook of Environment Impact Assessment by V. S. Kulkarni, Dr. S. N. Kaul, R. K. Trivedi, Scientific Publisher, 2002.

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