

# **MASTER OF PLANNING (ENVIRONMENTAL PLANNING)**

## SCHEME OF EXAMINATION

1 <sup>st</sup> YEAR - SEMESTER II												
Classification of Course	Code	Course	Hours/ Week	L	T	S	Credits	External Exam Type	Marks			Duration of (Theory) Exam
									Internal Assessment	External Examination	Total	
<b>Core</b>	EP 2.01	Theory of Environmental Planning and Design	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
	EP 2.02	Environmental Monitoring and Assessment (Theory)	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
	EP 2.03	Environmental Monitoring and Assessment (Laboratory)	2	2	0	0	2	Internal Only	100	0	100	-
	EP 2.04	Environmental Impact Assessment	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
<b>Studio</b>	EP 2.05	Environmental Planning and Design Studio	12	0	0	9	12	Jury	200	200	500	-
	EP 2.06	GIS Studio		0	0	3			50	50		
<b>Department Elective*</b>	EP 2.07	Resilient Cities	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
	EP 2.08	Pollution Management and Settlement Planning										
<b>Training (Non-Audit)</b>	EP 2.09	Six weeks practical training	6 Weeks				NC		0	0	0	-
<b>TOTAL</b>			<b>22</b>				<b>22</b>		<b>550</b>	<b>450</b>	<b>1000</b>	

**List of Abbreviations**

L = Lecture; T = Tutorial/ Seminar/ Research/ Lab; S = Studio; NC = Non-Credit

\*Pick any one

2 <sup>nd</sup> YEAR - SEMESTER III												
Classification of Course	Code	Course	Hours/ Week	L	T	S	Credits	External Exam Type	Marks			Duration of (Theory) Exam
									Internal Assessment	External Examination	Total	
Core	EP 3.01	Environmental Economics and Environmental Auditing	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
	EP 3.02	Environmental Protection and Management	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
	EP 3.03	Environmental and Planning Legislation	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
	EP 3.04	Advanced Environmental Impact Assessment Techniques	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
Studio	EP 3.05	Environmental Conservation and Management Studio	12	0	0	9	12	Jury	200	200	500	-
	EP 3.06	GIS Application		0	0	3			50	50		
Non-Audit	EP 3.07	Research Methodologies and Seminar	Non-Credit									
Department Elective	EP 3.08	Ecosystem Services for Settlement Planning	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
	EP 3.09	Degraded Land Management										
Institute Elective	EP 3.10	Environmental and Social Impact Assessment	2	2	0	0	2	Internal Only	100	0	100	-
<b>TOTAL</b>			<b>24</b>				<b>24</b>		<b>600</b>	<b>500</b>	<b>1100</b>	

**List of Abbreviations**

L = Lecture; T = Tutorial/ Seminar/ Research/ Lab; S = Studio; NC = Non-Credit

2 <sup>nd</sup> YEAR - SEMESTER IV												
Classification of Course	Code	Course	Hours/ Week	L	T	S	Credits	External Exam Type	Marks			Duration of (Theory) Exam
									Internal Assessment	External Examination	Total	
Core	EP 4.01	Formulation, Financing and Management of Environmental Projects	2	2	0	0	2	Written-Exam	50	50	100	2 hrs.
Studio	EP 4.02	Environmental Planning and Design Thesis	10	0	0	10	10	Jury	350	350	700	-
Institute Elective	EP 4.03	Planning for Sustainable Settlements	2	2	0	0	2	Internal Only	100	-	100	-
<b>TOTAL</b>			<b>14</b>				<b>14</b>		<b>500</b>	<b>400</b>	<b>900</b>	
<b>GRAND TOTAL OF ALL SEMESTERS</b>			<b>86</b>				<b>84</b>		<b>2200</b>	<b>1800</b>	<b>4000</b>	

**List of Abbreviations**

L = Lecture; T = Tutorial/ Seminar/ Research/ Lab; S = Studio; NC = Non-Credit

# SYLLABUS

## FIRST YEAR: SEMESTER II

### EP2.01: Theory of Environmental Planning and Design

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

#### Course Content:

##### Concepts of Environmental Planning:

- Concepts of Environmental Planning, History of Environmental Planning, Global Concerns, Development of habitat patterns, settlement structure and form in response to environmental challenges.

##### Environmental Zones, Natural Resource Assessment and Planning:

- Environmental Zones (Hill, coastal, arid, characteristics, resources, settlements pattern, problems and potentials, regulating mechanisms for development.)
- Scientific methods for resource analysis for various ecosystems and development imperatives (land, geology, soil, climate,

water, vegetation) characteristics, exploitation, causative factors for degradation, analytical techniques.

- Urban Ecosystem, Ecosystem Services & Biodiversity Conservation

##### Design solutions and Environmental upgradation:

- Design as a determinant of Environmental quality
- Evolution of Environmental design, theories and practice of design Criteria of Urban Environmental design issues- pedestrian-vehicular conflict, City Centre Environment, Housing areas, dereliction, environmental up gradation programmes, Built environment aesthetics of ensemble of buildings, techniques of study of building condition, conservation aspects of built-up areas

##### Micro-Climate assessment:

- Urban climatology, effects of thermal pollution, factors causing heat island effects, wind movement, radiation, climatic effects on Urban areas, control techniques, Plant material and Design

##### Climate Resilience:

- Climate Change and City Planning. Greenhouse effect, emission sources quantification, impacts of climate change in India.

##### Alternate technology and Clean Energy Applications:

- Environmental approaches to design and planning of urban settlements, use of alternate technology in design of human settlements. Application of Energy code.

Techniques of water harvesting, water treatment, recycling, waste disposal, waste minimization, and their implications.

- Low cost and cleaner technologies. Technologies related to alternate energy- Solar, biomass, biogas, hydro, wind and their usefulness in settlements.

## EP2.02: Environmental Monitoring and Assessment (Theory)

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

### Course Content

#### Air Quality monitoring and assessment:

- Air Pollution-sources, causes/pollutants and their effects, emission sources, vehicular emissions, techniques of monitoring of emissions, emission standards, and ambient air quality.
- Concepts of relevant meteorological parameters, and interpolation of data,

wind system measurement, turbulence; mixing height, plume use, dispersion and dispersion models.

#### Water Quality monitoring and assessment:

- Water Pollution – sources, water quality tests, minimum standards of disposal (for different uses), performance criteria.

#### Noise Quality monitoring and assessment:

- Noise Pollution- sources, techniques of measurement, noise level standards, noise levels.

#### Land / Soil characteristics, pollution monitoring and assessment:

- Land Pollution -sources, soil erodibility tests, minimum standards of disposal (minimum standards for different uses), performance criteria.

## EP2.03: Environmental Monitoring and Assessment (Laboratory)

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	0	0	2	2	Internal Only	100	0	100	-

## Course Content

### Air Quality monitoring:

- Sampling, laboratory testing, exposure to handy equipment,
- Laboratory file and manual maintenance.

### Water Quality monitoring:

- Sampling, laboratory testing, exposure to handy equipment,
- Laboratory file and manual maintenance.

handy equipment,

- Laboratory file and manual maintenance.

### Noise Quality monitoring

- Sampling, laboratory testing, exposure to

### Soil testing

- Sampling, laboratory testing, exposure to handy equipment,
- Laboratory file and manual maintenance.

## EP2.04: Environmental Impact Assessment

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

## Course Content

### Introduction to EIA

- Concept of Environment, Concept of EIA
- EIA: Origin and Development,
- Evolution of EIA in India: Constitutional Provisions and Policy Regulations

- Baseline Studies for EIA
- Environmental Settings
- Impact Prediction and Evaluation
- Methods of EIA; advantages and limitations
- Documentation and Monitoring
- EIA Effectiveness, EMP's
- Environmental Impact Factors and Areas of Consideration

- Public Participation in EIA; definition and concepts, objectives, techniques, advantages and limitation, PRA techniques.
- Case studies
- Assessment methods for projects
- Assessment of development projects (including roads, industries, housing, townships etc.). Exposure to Project specific TOR s and EIA Manuals, relevant notifications.

### EIA Concepts and Procedures

- Screening and Scoping

## EP2.05: Environmental Planning and Design Studio and EP2.06: GIS Studio

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
12	0	0	9	12	Jury	200	200	500	-
	0	0	3			50	50		-

### Course Content

#### Environmental Plan Preparation

- Plan formulation for addressing environmental issues of an urban area. Preparation of baseline data, application of environmental assessment methods, and formulation of development plans with focus on an environmental issue.

#### Application of GIS and Geo-informatics (will vary as per project requirement)

- Data formats: Data formats in GIS and their structure, vector and raster data
- Designing a GIS project: concepts and geodatabase designing

- Map projections: projections and Geo-referencing
- Creating vector data in GIS: vectorisation and digitization, importing data from CAD, creation data from scanned maps and satellite images

## EP2.07: Resilient Cities

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

### Course Content

#### Introduction to Low Carbon cities

- Background of Low Carbon Cities Framework
- definition of Low Carbon Cities

- Sustainable Framework for Low Carbon Cities
- International Conventions to reduce GHG- UNFCCC
- Global Anthropogenic GHG Emissions in 2004

- Global Agreements and Targets

#### Sectoral action for low carbon cities

- Energy
- The Low-Carbon, Liveable Cities
- Tools and carbon calculators



### Financing Low carbon cities

- Urban resilience

A framework for Low Carbon for Local Government

### Best Practices

- Aligning climate and development, the co-benefits approach
- Best practices for low carbon cities

- Adaptation and Mitigation strategies
- Low carbon strategies

## EP2.08: Pollution Management and Settlement Planning

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

### Course Content

#### Water treatment, supply and management

- Water sources, type, quality, standards for supply and distribution. treatment methods and rain water harvesting

#### Waste water Treatment and solid waste management

- Introduction to waste water treatment
- Primary Waste Water Treatment, Secondary Waste water Treatment

- Low cost treatments, Decentralized systems
- Solid waste generation, collection and disposal systems

#### Air and Noise Pollution control

- Air pollution sources, Standards, Control technology for particulate matter and gaseous pollutants, Noise pollution sources, Standards, Permissible noise levels in different land uses, Noise pollution control at source

#### Storm water drainage

- Flooding and water problems, run off calculations, storm water management

### Safety, Health and Environment

- Indoor pollution and occupational health, Perspectives and concern, development projects and related aspects of safety and health
- Toxicology- basic concepts, evaluation of toxicity, methods used to assess toxicology and categorization of toxic materials
- Identification of potential safety and health hazards in industrial and development projects, reduction strategies, policies and legislation, safety standards and management systems, ISO 18000, industrial health safeguards

## EP2.09: Six Week Practical Training

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
6 weeks	-	-	-	Non-Credit	-	-	-	-	

### Course Content

#### Internship in Government, NGO, Consulting organizations

- Practical training on environmental planning, research, conservation, management and development projects. Exposure to applications of policy, legislation to development, spatial planning decisions etc.
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## SECOND YEAR: SEMESTER III

### EP3.01: Environmental Economics and Environmental Auditing

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

#### Course Content

##### Environment and Economy

- Environment & Economy – Pollution & Externalities –
- Common Property Rights – Concept of Total Economic Value – Direct & Indirect Methods of Environmental Valuation – Methods of Pollution Control & Environmental Policy – Sustainable Development – Concept of Green GDP

##### Accounting and Costing

- Financial Accounting – An Overview: Basic Finance concepts, Different facets of Accounting and Finance, Financial Accounting Process, Books of Accounts. Introduction to Costing and Cost Management – An Overview: Basic cost concepts, Cost determination process, job costing and process costing, marginal costing, budgetary control. Cost control and cost reduction

##### Valuation Methods

- Uses of monetary valuation – Cost Benefit Analysis, National Resource Accounting, Pricing, Non-use Value, Techniques of monetary evaluation / valuation methodologies
- Economic approaches of measuring sustainable development; measuring wealth, modifying GNP, savings, technological Change, Social Capital, Property right, creating global markets.
- Environmental Certification, Performance evaluation, Environmental Auditing, Eco-labelling, ISO.

### EP3.02: Environmental Protection and Management

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

## Course Content

### Sustainable Development and Human Environment

- Concepts of Sustainable Development, Quality of Life, Social Justice, Poverty, Gender and Livelihood issues, Conflicts and pressures. Development Goals, Toolkits and Indicators for sustainable settlement planning, Natural Resources management perspectives, Ecological Footprint

### Public health and development

- Health and Development linkages in the context of global landmarks and looking

beyond. Introduction to Public Health, Institutes and Approaches. Overview of global health and well-being in the global context, emphasizing on current status in different region/ countries from Asia, Latin America, African continents Primary health care to MDG to Social Determinants of health. Healthy city Concept

### Environmental Governance

- National Instruments of Governance; Hierarchy of statutory bodies and their mandates, financial powers; Judicial Review and the Indian Constitution, Judicial Activism and Public Interest Litigation, Principle of sustainable development,

Precautionary principle, Polluter pays principle, Public trust doctrine, Principle of absolute liability

- The National Green Tribunal, Need for special environmental court's, Jurisdiction and powers of the National Green Tribunal
- Community Based Natural Resource Management (CBNRM); Environmental entitlements; Indigenous Knowledge and Natural Resource Management: Sacred Geography (sacred groves, cultural landscapes); Traditional Ecological Knowledge and Sustainable Resource Use; Case Study - Shifting Cultivation in North East India; Case Study - Water Resource Management in Rajasthan

## EP3.03: Environmental and Planning Legislation

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

### Course Content

#### Environmental legislation

- Introduction to Law (Indian Constitution, Evolution of Environmental Laws in India.)
- EP Act 1986
- Air (Prevention and Control of pollution) Act
- Water (Prevention and Control of pollution) Act

- Mines and Mineral Act
- Factories Act
- Pesticides Act
- Indian Forest Act
- Wildlife Act
- Ancient Monuments and Archaeological Sites and Remains Act
- Hazardous Waste Management and Handling Rules / Biomedical Rules / Solid

Waste Management Rules

- Environment Tribunal Act
- Climate change Protocols and Conventions
- MOEFCC Guidelines and Notifications
- Appellate Authority Act
- Other related Notifications

#### Planning legislation

- Concept of Law: Source of law (i.e. custom.

legislation and precedent), meaning of terms of law, legislation, ordinance, Bill, Act, Regulations and Bye-laws.

- Significance of law and its relationship to Urban planning benefit of statutory provisions- eminent domain & police powers.
- Indian Constitution: Concept and contents, provisions, regarding property rights, Legislative competence of state and central Government to enact town planning legislation.
- Evolution of Planning legislation. An over view of legal tools connected with Urban Planning and Development, Town

and Country Planning Act, Improvement Trusts Act, Urban Planning and Development Authorities Act -objectives, content, procedures for preparation and implementation of regional plans, Master Plans and Town Planning schemes

### Arbitration and Land Development Controls

- Concept of Arbitration; Betterment levy; development charges and public participation in Statutory planning process; Concepts of Structure Plan; local plan/and action plan under the English law.

- Land Acquisition Act 1884 - Basic concept, procedure for compulsory acquisition of property and determination of compensation.
- Urban land (Ceiling and Regulation) Act 1976 – objectives, contents and planning implications.
- Significance of Land Development Control – objectives, contents and legal tools, critical evolution of zoning, sub-division regulations, building regulations and bye-laws, Development Code, Zoning law and law relating to periphery control.
- 73th and 74th Constitutional Amendment Act, 1992.

## EP3.04: Advanced Environmental Impact Assessment Techniques

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

### Course Content

#### Strategic Environmental Assessment

- Policy environmental assessment
- Sectoral environmental assessment
- Strategic Environmental Assessment: Key concepts

- SEA Legislation and Process
- Regulatory and Planning Framework of SEA and Implementation
- SEA Tools and Techniques

#### Application of appropriate Techniques for EIA

- Risk Assessment / Vulnerability Assessment,

Sustainability Appraisal, Carrying Capacity / Environmental Thresholds

- Disaster Risk assessment, Climate Risk assessment, Social Impact Assessment, Coastal Zone Regulation, River Regulations, Eco-Sensitive Zones regulations etc.

## EP3.05: Environmental Conservation and Management Studio and EP3.06: GIS Application

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
12	0	0	9	12	Jury	200	200	500	-
	0	0	3			50	50		-

### Course Content

#### Preparation of Environmental Plan

- Planning and Design Studio - Exercises pertaining to: A Settlements / Region, Management Plan, Conservation Plan

#### Geomatic environmental mapping

- Geo-informatics for NRM (Vegetation, water, urban landscape, soils, mineral, geomorphology)
- Digital Image Processing (Rectification, enhancements, classification–

unsupervised, supervised, hybrid, accuracy assessment)

- Geographical Information System (Introduction, Data and Data Entry, Data Structure, Data Compression, Remote Sensing and GIS, Spatial Modelling, Terrain Modelling, Mobile GIS, Web Based GIS)

## EP3.07: Research Methodology and Seminar

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
Non-Credit									

### Course Content

#### Research methodology I

- Introduction to Statistics and Statistical thinking: The short module aims to orient students towards need and application of statistical approaches in development sector

- Build scientific perspective, attitude and skills for systematic enquiry by developing understanding of philosophical foundations of research

#### Research methodology II

- Defining the Research Problem and Objectives Literature Review (both theoretical and empirical) and gap

identification Developing Research Questions Hypothesis & Types of hypotheses Research Design and Sampling

- how to design and interpret research
- research methods, both quantitative and qualitative
- presentation of research findings

**Seminar on emerging environmental concerns**

- Identifying limitations of research
- Report Writing
- Selection of Term Paper Topic
- Class Discussions on Student Topics
- Term Paper Presentations

**EP3.08: Ecosystem Services for Settlement Planning**

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

**Course Content**

**Concept of Ecosystem Services**

- Evolution and formulation of Ecosystem Services, relation with Millennium ecosystem assessment

**Ecosystem services in Human Settlements**

- Assessment of Ecosystem Services, Toolkits for assessment, Application in spatial planning, green Infrastructure

**EP3.09: Degraded Land Management**

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

**Course Content**

**Contaminated land as a resource**

- Definition and types of degraded lands in

urban and regional scales, Land utilization policy

**Degraded land management**

- Techniques of eco-restoration, Brownfield

development, Case studies. Management of Degraded ecosystems, Contaminated land management, Constructed Wetland, Phytoremediation, Bio remediation, Phytoid, Root Zone treatment etc.

## EP3.10: Environmental and Social Impact Assessment

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Internal Only	100	0	100	-

### Course Content

#### Overview of EIA and methods

- Categorization of Projects, Methods of Assessments, Environmental Impacts – examples, need for assessment, difficulties; The EIA Approach – Background, Objectives, Components & Techniques,

Impact prediction & analysis, Treatment of Risk and Uncertainty, EIA inputs to the project cycle and development planning

#### Social Impact Assessment

- Socio-cultural aspects and role in environmental protection, Livelihood

assessments, Methods of Social Impact Assessment,

- SIA and community, marginalized/vulnerable groups, indigenous people, resettlement & rehabilitation and development



## SECOND YEAR: SEMESTER IV

### EP4.01: Formulation, Financing and Management of Environmental Projects

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	Written-Exam	50	50	100	2 hrs.

#### Course Content

##### Project identification

- Project identification, formulation and selection consideration.
- Techno economic feasibility study report (TEFR) and detailed project (DPR)
- Sequential phases of project life cycle-concept, definition, grows implementation, clean up and monitoring and evaluation of projects monitoring

##### Project Appraisal

- Project appraisal and analysis

- Project organization and management (HRD aspects)
- Project financing- resource mobilization internal and different sources of project finance from and international
- Project cost estimates
- Type of costing system: Standard cost, marginal cost, uniform cost and various analysis
- Project implementation and management strategy:

##### Cost benefit Analysis

- Pricing policies and cost recovery system

adopted for project products and services and marginal cost and BEP analysis.

- Project planning and scheduling method: graphical charts and bio network system. PERT, CPM etc.
- Financial and social cost benefit analysis by following discounting cash flow method an finding out NPV, IRR and BCR method system of evaluation of capital investments.

##### Public Investments

- Public investment decisions: The criteria adopted by public investment board (PIB) assisted by project appraisal division (PAD) of planning commission, Govt. of India.

### EP4.02: Environmental Planning and Design Thesis

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
10	0	0	10	10	Jury	350	350	700	-

## Course Content

- Thesis topics pertaining to Environmental Concerns emphasizing on Spatial Planning strategies, recommendations, proposals

### EP4.03: Planning for Sustainable Settlements

Hrs / Week	Lecture	Tutorial	Studio	Credits	External Exam Type	Marks			Duration of (Theory) Exam
						Internal Assessment	External Examination	Total	
2	2	0	0	2	-	100	-	100	-

## Course Content

### Urban Settlements

- Sustainability of Urban Ecological Environment
- Factors Effecting Sustainable Development of Cities
- Human Settlement Environment Issues, Approaches, policies
- Rural Settlements
- Sustainable Rural settlements, urban villages, peri-urban areas, Approaches, policies.