

# Urban Regeneration

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## Overview

As per the recent United Nation Reports, India is projected to add 416 million urban dwellers between 2018 to 2050 (Department of Economic and Social Affairs, UN, 2018), resulting in an alarming increase of urban population share from 34% [The World Bank, 2018] to 54% in 2050. The growth and development of the urban agglomeration as a result of the planning processes has resulted into unregulated and uncontrolled expansion of the cities across the country. The pressure on the existing urban settlements is increasing and in time it will be rendered non habitable due to the degenerated civic conditions giving rise to congestion, pollution, poor infrastructure and transportation. The degeneration of the urban settlements thus has to be reversed by Urban Regeneration as Policy, Mechanism and Instrument.

## Course Name

**M.Arch Urban Regeneration [Full Time]**

## Course Duration

02 years [04 Semesters - 28 credits/semester]

## Entry Requirement

Preferably an upper second-class Bachelor's degree in Architecture (or higher) from an Indian university or an overseas qualification of equivalent standing is required. All the eligible students are required to qualify the university entrance test for admission to the course.

## About the Course

The Post-Graduate course is formulated as a holistic trans-disciplinary program educating the Architects to enable them to prepare Urban-Regeneration Projects, formulate Guidelines, device Implementation Mechanism and create Management Framework. The Governments, both central and state, have already initiated projects like JNNURM, Smart Cities Mission, AMRUT, HRIDAY etc. where students after completing the course shall be able to work as specialist in the field of Urban Regeneration for the Government bodies, UNDP, ADB projects and other agencies in India and abroad. The course is exclusive in its intent and structure and only offered by JMI in the country.

Students undertake modules to the value of 112 credits in total.

The programme consists of 03 Regeneration Studios [24 credits], one Thesis, in the 4th Semester [16 credits], 03 Research Dissertations [12 credits], and theory subjects on Concepts, Policy & Practice, Urban Conservation, Urban Eco-System, Integrated Tourism Development etc. [02-04 credits each].

Teaching, Learning & Evaluation +  
FieldWork

The teaching & learning is carried out through a series of lectures, workshops, seminars, and the continuous evaluation is carried out through individual and group work's essays, presentations, reports etc. The written and viva-voce exams are conducted at the end of each semester (16 weeks).

Participation in the fieldwork is mandatory for all the students.

FieldWork Details:

Semester I : Area Appreciation [New Delhi]

Semester II: City Studio [Anywhere in India] - 02 weeks

Semester III: Regional Studio [Anywhere in India] - 02-03 weeks

Semester IV: Thesis [Respective Study Areas]

Career & Employability

The graduates of the course have been successful in finding jobs in public sector organisations and have been working on projects on Smart Cities, UNDP Infrastructure Projects, Master Planning, Transit Oriented Development Projects etc. The graduates are also placed well in private organisations in India and abroad. The graduates have been working on policy development, comprehensive city & regional regeneration plans, large-scale ecological plans, comprehensive economic and social development plans. The graduates are also involved in working with local authorities, non-government organisations, voluntary sector organisations etc. towards developing strategies for local area regeneration. Some graduates go on to pursue a PhD program in Regeneration or Allied disciplines.

The course trains the students to assess larger economic, social and environmental forces and prepare strategies, development plans and specific urban regeneration interventions keeping in the mind the particular neighbourhood, city or regional problems, issues and prospects. The course also equips the student with technical skills of using analytical tools for the comprehensive assessment of the study area. Such skills and attributes have been highly appreciated by employers in the hiring organisations.

Infrastructure Available

GIS Lab

Environment Lab

Energy Simulation Lab

Solar Lab

Model Workshop Lab

Survey Lab

Studio[s]+Lecture Room[s]+Computer Lab[s]

Auditorium [for Seminar & Workshops]

**MAR 151: Concepts: Assembly of the City- Morphological and Social Components**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	0	25	25	-	<b>50</b>	3	2

**OBJECTIVE:**

- To introduce the notion of city and urban built environment.
- To be able to comprehend the assembly of a city into various strata of Morphological and Social components.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Notion of City:**
  - The Definition of 'Urban'
  - The Attributes of Urban
  - What causes Rural-Urban migration?
  - Hierarchy of the cities
    - Sizes and Scales w.r.t. Area and Population.
  - Cognition of the City:
    - Urban Spatial Experience
    - Urban Culture; unique cultural characteristics of various cities.
- **Urban Morphology:**
  - The Physical Structure of the city.
  - Shape of the City: Linear vs Laminar
  - Urban patterns: Grid-iron, Radial, Circular and Organic
- **Urban Design:**
  - Components of the city: City Centre, Commercial Centres, Open Spaces, Landmarks
  - Urban Design Elements: Axis, nodes, Streetscapes, Street furniture, Architectural Vocabulary, Building Control, Architectural Control
  - Urban Design Schemes
- **Urban Sociology:**
  - Social Structure of the Cities

- Horizontal and vertical stratification in urban scenario
- Social Cohesion: Congregational Spaces; Public Squares, Streets, transport interfaces.
- Socio-Spatial schemes, both; planned and informal.

**MAR 152:****Theory: Indigenous Urbanism**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
2	0	25	25	-	<b>50</b>	3	2

**OBJECTIVE:**

- To inform the student about the form and function of the urban settlements other than modern planned towns and cities.
- To appreciate the spontaneity and dynamics in the form and function of the informal settlements.
- To generate understanding about the factors shaping indigenous settlements and traditional wisdom of urbanization.

**METHODOLOGY:**

- Lectures and Presentations.
- Description of Cities by ancient and medieval travellers to India
- Case Studies (primary & secondary) by students to further the understanding.

**CONTENTS:**

- **Ancient Cities of India:**
  - Cities of Indus-Valley Civilization.
  - Study of the morphology of the ancient cities.
  - Traditional Planning Schemes of Ancient cities of India.
- **Medieval cities of India:**
  - Traditional Planning Schemes of indo-Islamic Cities.
  - Traditional Planning Schemes of Temple Cities of India.
- **Informal Settlements:**
  - Study of Informal Habitation in the cities; Slums, Squatters, Unauthorized Colonies, Ghettoization.
- **Urban Villages:**
  - Study of Urban Villages in Indian cities with focus on Delhi.
  - Socio-Economic dynamics of Urban Villages vis a vis Urban Sprawl.
- **Study of the Process of Gentrification in Informal Settlements:**

- The Factors leading to the Gentrification.
- The Socio-Economic relationship of gentrification.
- Effects of gentrification.
- Case Studies:
  - Hauz Khas Village, Okhla, Shaheen bagh- Abul Fazal, Shahpur Jat, Bharat Nagar, Khizrabad, Nizamuddin etc;
  
- **Mixed Land use as Traditional urban Scheme:**
  - Nature and Organization of Mixed Land use in Indian Cities.
  - Spatial organization of mixed land use at building level and city level.
  
- **Traditional Knowledge Systems of Human Settlements**
  - Introduction to Traditional knowledge systems.
  - Traditional Knowledge systems in Human Settlements.
    - Architecture of a Place-Derivative of indigenous knowledge.
    - Sacred Dimensions: Architecture and urban patterns shaped by metaphysical beliefs, the scientific interpretation of the same.
    - Vernacular material and construction technology; Harvest mapping.
  - Study of Traditional knowledge citing Natural resource management and Disaster management.
    - Architecture for climate.
    - Architecture for water harvesting; *baoli*, cisterns, tanks, ponds, channels, *bunds* etc.
    - Architecture for mitigating floods, earthquake, storms and other disasters.

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- To inform students the process and techniques of Planning in India.
- To train students about the basic application of GIS and other information management tools.
- To introduce about the Planning Acts, Master Planning.
- To introduce in brief the fundamentals and principles of Planning discipline.

**METHODOLOGY:**

- Lectures and Presentations.
- Case Studies (primary & secondary) by students to further the understanding.

**CONTENTS:**

- **Introduction:** Planning Terminologies and definitions.
- **Planning Process:**
  - Data Collection, Primary and Secondary Sources of data.
  - Surveys, Sampling, Questionnaire Design.
  - **Data Analysis:**
    - Collating data and presenting in the Physical and Socio-economic layers
  - **Census:**
    - Definitions, Process of conducting Census, Scope of Census, Information content in Census, Use of Information in Census in Planning.
  - **Demography:**
    - Definitions, Demographic data, Use of Demographic data in Planning, Study of changes and shifts in socio-economic statistics, migration and population projections etc.
- **GIS:**
  - Introduction of Geographical Information System.
  - Role and Scope of GIS in urban planning and management.
  - The process of generating a base map and further evolving multilayered thematic maps.
  - The process of collating and attaching the metadata with the maps.
  - Introduction to open source/web-GIS software
- **Town and Country Planning:**
  - Town and Country planning Acts in India.

- Comprehensive Plan, Master Plan, Zonal Plans, Local Area plans, Development Schemes.
- **Economic Planning Theories**
- **Planning Principles:**
  - **Urban Planning:**
    - General plans of land development;
    - Zoning and subdivision controls specifying the permissible land uses,
    - Densities, and requirements for streets, utility services, and other improvements;
    - Plans for traffic flow and public transportation;
    - Strategies for economic revitalization of depressed urban and rural areas;
    - Strategies for supportive action to help disadvantaged social groups;
    - Guidelines for environmental protection and conservation of scarce resources.
    - Role and Jurisdiction of Planning and Development Authorities
  - **Housing Planning:**
    - Housing Scenario in India, Housing deficit.
    - National Housing policies.
    - Housing Types and Housing Sectors development.
    - Role of Government and Non-Government agencies in Housing Sector.
    - Housing Finance.
      - Role of Hudco in Housing sector
      - Role of State Housing Boards
      - Role of National Housing bank and other financial institutions.
      - Procurement for Housing loan.
    - Role of private sector in housing stock generation.
    - Socio-Economic impacts of planned housing.
    - Designation of Slums, Squatters and Unauthorized colonies.
    - HHS Slum Act, Rent Control Act and Transfer of Development Rights.
    - Development of Low Income Housing.
      - Resettlement Schemes and Policy
      - Design of dwelling unit, cluster and provisions for infrastructure
      - Micro-Credit, financial feasibility, Cost-sharing, land pooling
- **Case Studies:**
  - Comparative Studies between Urban and Housing Situations in Historic, Informal and Modern planned areas through the application of GIS.



**MAR 154:****Urban Regeneration: Policy and Practice**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- To inform students about the approaches of Urban Regeneration.
- To inform the students about various policies, plans and schemes under the umbrella of urban regeneration.
- To Study the roles of various Govt. and Non-Govt. agencies in urban regeneration.

**METHODOLOGY:**

- Lectures and Presentations.
- Case Studies (primary & secondary) by students to further the understanding.

**CONTENTS:**

- **Introduction:**
  - Definitions and Terminologies
    - Revival, Restoration, Renewal, Restoration, Recycling, Reuse, Rehabilitation, Resettlement, Redevelopment
  - Scope and Notion of Regeneration
    - Regeneration of Potential of Urban Centers.
  - Requirements of Regeneration
    - Present urban crisis, carrying capacity of Urban Centers, Disparity in the Allocation of Resources
  - Values of Urban Regeneration
    - Up gradation of Physical Environment, Safe and Comfortable, Inclusive Social and community living, Economically feasible, Universal Designs, Ecologically Sustainable
- **Plans and Schemes:**
  - Provisions of Ministry of Urban Development, Ministry of Housing, Ministry of Environment, Ministry of Culture.
  - Jawahar Lal Urban Renewal Mission (JNNURM)
    - Mandate, Structure and organization, Role and Scope, Financial model, Appraisal
  - City Development Plans (CDP's)

- Mandate, Structure and organization, Role and Scope, Financial model, Appraisal
- Master Plans
  - Provisions in Master plan for Redevelopment, Resettlement, Regeneration Projects.
  - Provisions for mixed land-use in MPD2021
- **Policy and Strategy:**
  - Policy and Strategy for Regularization of Un-authorized colonies.
  - Policy and Strategy for the Abadi-Area, Lal-dora and Urban Villages.
  - Policy and Strategies for the redevelopment, revitalization, resettlement and recycling of housing.
  - Policy towards historic, traditional and informal housings.
- **Integration of Urban Regeneration with other initiatives:**
  - Integrated Heritage Conservation. (to be studied in detail in second semester)
  - Integrated Tourism Development. (to be studied in detail in third semester)
  - Major events; CWG2010.
  - Post Disaster rehabilitation.

**MAR 155:****Urban Management: Local Urban Governance**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- To inform students about the organization, structure, roles and responsibilities of various agencies in local urban governance.
- To inform student about the process of Statutory Approval for a development project.

**METHODOLOGY:**

- Lectures and Presentations.
- Case Studies (primary & secondary) by students to further the understanding.

**CONTENTS:**

- **The Constitution of India**
  - Preamble of the Constitution of India
  - Structure of the Indian Constitution
- **The Three Lists**
  - Constituents of the 3 Lists. Roles and Responsibilities of the Centre and State
  - Mandates of Urban Development and Urban Governance as given in the Constitution of India.
- **Agenda 21**
- **Five Year Plans**
- **De centralization**
  - The 72nd, 73rd & 74th Amendment Acts
  - Strengthening of urban local governance
  - Central Planning Commission
  - State Planning Board
  - District Planning Committee
  - Metropolitan Planning Committees
  - State Finance Commissions
- **Urban Local Bodies**

- Municipal Corporations, Municipalities, Development Authorities, Urban Improvement Trusts (Rajasthan)
- Constitution and Role & Responsibilities of Urban Local Bodies
  
- **Urban Local Institutions**
  - Case of Delhi, NCRPB, NDMC, MCD, DDA, DJB, DUAC, Delhi Metro, Heritage Conservation Committee etc;
  - Allocations of roles and responsibilities: Multiplicity and Conflicts.
  
- **Statutory Approval and Sanctioning Process**
  - The Process of getting Statutory Approval of a Development or Regeneration Project from various agencies in Delhi.
  
- **Case Study of Urban Local Institutions (One City per student)**
  - Study of the Constitution, Organization, Roles and Responsibilities of Urban Local Bodies in various cities of the country.

**MAR 156:****Studio-I (Perception and Appreciation; Urban Precinct)**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	6	100	-	100	<b>200</b>	-	8

**OBJECTIVE:**

- The course intends to impart a thorough understanding of the complex urban situations like morphological, socio-economic, political and cultural.
- The practical understanding of the students is enhanced by taking up studio exercises (real/hypothetical) in real situation and then apply the learning of the theoretical subjects.

**METHODOLOGY:**

- Lectures, Site Surveys, Field Visits (Educational Tours).
- Discussion Forums & Brainstorming Session.
- Case Studies (primary & secondary) by students to further the understanding.
- Presentation by students.

**CONTENTS:**

- **Perception & Appreciation**
  - Students select one city (e.g. respective hometown) and generate basic information about morphology and demography.
  - Prepare a comparative Matrix, discussing upon the peculiarities and diversities in the cities selected.
  - Study the satellite image or map and identify the urban components; old town, fort, palace and other landmarks, fortification, maidan, gardens and other open spaces, streets, bazaars, water edge.
  - Study the homogeneity and heterogeneity in the Urban sprawl.
  - Identifying the markers for delineation of the heterogeneous urbanism like traditional settlement and modern planned settlements.
  - To decipher the course of expansion of the city.
- **Study of Urban Precinct**  
**The Study will be based on selecting a real precinct to the scale of neighborhood level in urban situation and conducting a comprehensive studio exercise on the same.**
  - Identifying a precinct (neighborhood level) in an urban situation (after brainstorming session) for detailed study and studio project.
  - Setting up of Aim and Objective of Study
  - **Preliminary Stage:**

- Studying the selected area in its entire context of the city; location, origin & evolution and peculiarities.
- Generation of a base map on suitable scale.
- Studying the morphology: Figure map, Urban Pattern, Density, Streetscapes.
- Studying the demographics; Occupation, Migration, Socio-Economical aspects, ownerships.
- **Intermediate Stage:**
  - Studying the Physical and Social infrastructure.
  - Identification of Heritage and other cultural resources.
  - Studying the Local Governance mechanism.
  - Collating the information as layers on the Base map.
- **Pre-Final Stage:**
  - Identification of issues pertaining to the urban situation.
- **Final Stage:**
  - Formulation of Proposals- Planning, Design and Management.

**MAR 157:****Dissertation I (Research Methodology)**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	2	50	-	50	<b>100</b>	-	4

**OBJECTIVE:**

- To introduce the methodology of carrying out researches.
- To carry out a Dissertation on a topic comprising of an aspect or space in urban context.

**METHODOLOGY:**

- Lectures and Presentations on Research Methodology.
- Case Studies (primary & secondary) by students to further the understanding.
- Discussions with individual student during the course of dissertation.
- Students are required to submit a synopsis identifying the knowledge gap and formulating a case for dissertation.

**CONTENTS:**

- **Hierarchy of Information**
  - Data-Information-Knowledge-Wisdom
- **Research Methodology**
  - Inquiry, identification of Knowledge gap
  - Theorem of Research
  - Concepts of objectivity
    - Inductive Reasoning
    - Deductive Reasoning
  - Analogy and Causality
  - Interpolation and Extrapolation
- **Philosophy of Dialectics**
  - Dialectic
  - Views of Plato, Aristotle, Hegel
  - Dialectic by Karl Marx
- **Sequential Research**
  - Case-Hypothesis-Inquiry & Analysis-Thesis-Synthesis-Anti thesis
- **Citation and Cross-referencing**
  - Chicago Manual
  - Annotated Bibliography

- *Students will be simultaneously working on the respective Dissertation Topic. Final Submission will be in the form of three hard copies and one soft copy of their dissertation for evaluation at the semester end.*



**MAR 251:****Concepts: Transformations of Cities**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
2	0	25	25	-	<b>50</b>	3	2

**OBJECTIVE:**

- To study the city as a dynamic unit.
- To understand the factors causing transformations
- To understand the patterns of transformation

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students
- Written paper by the students

**CONTENTS:**

- **City as Dynamic entity:**
  - Cities in the dynamic state; changing continuously
  - Cities within cities:
    - City Centres, Old town
    - Central business district, District Centers
    - Downtown
    - Squares, Chawks, gardens
    - Markets, malls, bazaars
    - Slums, Squatters, Informal developments
- **Factors Causing Transformations:**
  - Population growth
  - Migration
  - Upgradation of infrastructure
  - Political and Management issues
- **Processes of Transformations**
  - Expansion: Change in Landuse, Encroachments
  - Re-densification: Change in Regulations

**MAR 252: Theory: Finance Planning and Implementation of Urban Regeneration Projects**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	0	25	25	-	<b>50</b>	3	2

**OBJECTIVE:**

- To inform about the Sources of Funding, Financial models and methods of Financial Feasibility of projects.
- To inform about the process of Project planning and implementation.
- To learn about the Project Management Techniques.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Sources of Funding:**
  - Government allocation and distribution in Annual Budget
  - Planning Commission sanctions
  - Budget Allocation of JNNURM, SEZ projects, Export Promotion Zones
  - Sources of Non-Govt. funding; UNDP, ADB, NGO's, Private Sector
- **Financial Model:**
  - Public Private Partnerships
  - Design-Build-Own-Operate-Transfer
  - Cost-Sharing
- **Economic and Financial Feasibility Analysis**
  - Demand-Supply relationship
  - Cost-Benefit Analysis
  - Cost-Recovery methods
  - Break-Even point
  - Risk and uncertainty analysis
- **Project Planning:**
  - Project Formulation by economic and urban development policies
  - Process for Legal, Environmental and Institutional approvals for Project
  - Appraisal of Project Plan: Technical, Financial, Environmental, Social Appraisals.
    - Methods of Appraisal: 3-UNIDO, World Bank, ADB etc
- **Project Management:**
  - Work practices and Labour Laws

- Cybernetics Project Management Techniques
  - Work Packages, Phasing, Scheduling, CPM, PERT
  - Gantt Charts, Quality Control

**MAR 253:****Parameters: Jurisprudence**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- To inform students about various laws and acts in place related with the Urban Development.
- To understand the application and jurisdiction of these laws and acts.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Definitions:**
  - Acts, Statutes, Laws, Ordinances
  - Jurisdiction of Centre and State Laws
- **Environment Laws:**
  - Wildlife conservation laws
  - Environmental Legislation
  - Coastal Zone Regulations
  - Air, Water (Prevention & Control of Pollution) Act
- **Urban development Laws**
  - Town and Country Planning Acts
  - DDA Act
  - Municipal Act
  - Planning Regulations
  - Land Acquisition Acts
  - Building Bye Laws
  - Rent Control Act
  - Slum Act
- **Urban Conservation Laws**
  - UNESCO World Heritage Legislation
  - National Antiquities Laws
  - Monument Act and Treasure Trove Act

- Archaeological and Antiquities Act
- UNESCO Charters

**MAR 254: Urban Regeneration: Integrated Territorial Urban Conservation**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- To introduce the role of urban conservation in urban regeneration.
- To learn the methodology of preparation of the Integrated Conservation Plans.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Introduction:**
  - Urban heritage; Tangible and Intangible Aspects.
  - Identification, Inventorying and Mapping of Urban Heritage Resources
- **Value and Significance:**
  - Establishing the Value and Significance of Urban Heritage Resources including Natural components
  - Identity of a City and Urban Cultural Resources.
- **Urban Regeneration and Urban Conservation:**
  - Role of Urban Conservation in Urban Regeneration:
    - Holistic and Comprehensive Urban Conservation
      - Socio-Economic development
      - Community Participation
      - Up-gradation of Infrastructure
      - Tourism Infrastructure development
      - Ecological Sustainability
      - Inclusive-Universal
      - Establishing Identity
  - Urban Recycling and brown field projects
    - Adaptive reuse
    - Up-gradation of existing built resources
      - Seismic Retrofitting
      - Barrier Free Accessibility

- Fire Safety measures
    - Energy efficiency Retrofitting
  - Infill development
- **Integrated Urban Conservation:**
  - Background
    - Urban Conservation before 1975- York, Chester, Bath
    - Conservation Planning 1975-1990, Bologna, Ferrara. Integrating with the planning sector
    - Post 1992-The Rio Conference
  - Methodology for Interdisciplinary integration in Urban Conservation
    - Assessing the historic settlement with its cultural and natural setting.
    - Studying continuity and transformations
    - Establishing the values and significance
    - Identifying the Issues
    - Integrating with the existing systems of administration
    - Integrating with the Planning; regional plans, master plans, zonal plans, local area plans, infrastructure plans, transport plans, tourism plans etc.
    - Preparation of integrated conservation plans and management plans

**MAR 255: Urban Management: Integrated Urban Eco-System Management**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b>TOT</b>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- To inform students about the aspects of ecology and environment in the Urban Context.
- To learn the integration of Ecological components in the urban regeneration plans.
- To learn the process of Environment Impact Assessment.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Introduction:**
  - Definitions: Ecology, Ecosystem, Biosphere etc.
  - Urban habitation, Co-Habitation
  - Concepts of Sustainability: Ecological balance, Natural Resources Depletion, Reduce, Reuse and Recycle
  - Study of Microclimate in Urban Areas.
  - LEED, GRIHA ratings system for Energy Efficiency.
- **Urban Hydrology:**
  - Water Resources, both; natural and artificial in urban context
    - Rivers, tanks, Lakes, Ponds, baoli, well etc;
  - Depletion and Pollution of water resources.
  - Case of Flooding in Urban scenario
  - Water management:
    - Catchment & Draining, Recharge and Holding Capacity.
    - Rain Water harvesting
- **Urban Forestry & Bio-Diversity:**
  - Forest Cover in Urban Situations; Ridge in Delhi, Mangroves in Mumbai, Green Belt in Chandigarh etc;
  - Zoos and Bio-Diversity parks; Delhi Zoo, Deer park.
  - Role of Forests in maintaining the Urban Ecology and Environment.
  - Depletion of urban forest cover and effects on cities; Case Studies.
- **Urban Open-Spaces:**



- Study of system of Urban Open Spaces in a City.
  - Ecological Significance of open spaces.
- **Land stock Management**
  - Distribution and allocation of land for Ecological regions
  - Criteria for location of Industrial Facilities, Sewerage Treatment plant, Waste Disposal Units.
- **Waste Management**
  - Collection, Segregation, Disposal, treatment, Recycle
- **Climatic Change**
  - Green House Gas Emission.
  - Carbon Footprint of a City
- **Hazard Vulnerability**
  - Cities and Risk of Disasters due to Ecological Imbalance
- **Environment Impact Assessment**

**MAR 256:****Studio-II (Integration of Urban Infrastructure)**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	6	100	-	100	<b>200</b>	-	8

**OBJECTIVE:**

- To enhance the capabilities of working on practical regeneration projects.
- To learn the process of integration of socio-economical, infrastructure, heritage and ecology within the regeneration plans.

**METHODOLOGY:**

- Lectures, Site Surveys, Field Visits (Educational Tours).
- Discussion Forums & Brainstorming Session.
- Case Studies (primary & secondary) by students to further the understanding.
- Presentation by students.

**CONTENTS:**

- Selection of Real or Hypothetical project (in real situation) greater than neighbourhood scale with complex issues.
- Objective of the City Studio shall be to take up one particular town/city and study its evolution, current urban dynamics and devise appropriate strategies for its future development. Background of the Town/City Studio exercise shall be to understand the complex scenario and the multiple visions of the city by different agencies and stakeholders.
- Studio intention shall aim to make assessments, encompassing different field of specialization, urban conservation, urban planning, urban design and regional planning, and make students aware of them.
- The studio will seek three-dimensional solutions and development strategies to address people's needs as assessed on site through primary and secondary data resources. The emphases of the studio shall be two: a) Clear assessment of town/city working and its dynamics, b) Urban Regeneration (economic, social, morphological, and environmental) driven solutions.
- A fieldwork of 02 weeks of the study area is mandatory for the studio exercise. The study area can be anywhere in India.
- Preparation of urban regeneration plan integrating the following:

- Socio-Economic development plan
- Heritage development plan
- Environment improvement plan
- Infrastructure up-gradation plan

**MAR 257:****Dissertation II**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
0	4	50	-	50	<b>100</b>	-	4

**OBJECTIVE:**

- To further the ability to conduct researches from previous semester.
- To enhance the process of reasoning and analysis as taught in the previous semester for enriched research results.

**METHODOLOGY:**

- Lectures and Presentations on Research Methodology.
- Case Studies (primary & secondary) by students to further the understanding.
- Discussions with individual student during the course of dissertation.

**CONTENTS:**

- Students are required to submit a synopsis identifying the knowledge gap and formulating a case for dissertation.
- The identified research area should be specific with complex methodological requirements to carry out research.
- *Final Submission will be in the form of three hard copies and one soft copy of their dissertation for evaluation at the semester end.*

**MAR 351:****Concepts: Expanse of City; Regional Inter-relationships**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	0	25	25	-	<b>50</b>	3	2

**OBJECTIVE:**

- To introduce the notion of region as an extension of urban center.
- To be able to comprehend the assembly of the region.
- To understand the inter-dependency of entities with in a region.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students
- Paper submitted by the students

**CONTENTS:**

- **Notion of Region:**
  - Regions as extension of Urban Sprawl. Case Studies NCR etc.
  - Assembly of Region
    - Urban Centers: Metropolitan Region, Satellite Towns, Counter-Magnates
    - Urban Fringes: Rural-Urban Interface,
    - Rural Extensions: Villages, Agrarian regions
    - Industrial Belts
    - Special Economic Zones (SEZ)
- **Delineation of the Region**
  - Delineation of the regions on the basis of Social, economic and Cultural aspects.
- **Regional Intra-Dependency**
  - Socio-Economic Dependency: Floating Population for education, occupation, trade.
  - Supply of Commodities: Agrarian and Industrial
  - Service Sector
  - Ecological relationships
  - Infrastructure
  - Factors causing Migrations.

**MAR 352:****Theory: Social Inclusion and Harmonious Communities**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
2	0	25	25	-	<b>50</b>	3	2

**OBJECTIVE:**

- To introduce the concepts of sociology and the functioning of urban social framework.
- To understand the concepts for inclusive and harmonious community living.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Introduction:**
  - Definition: Sociology
  - Views of Classical and Contemporary sociologists
- **Concepts:**
  - Individual and Collective, Social Structure, Interaction and socializing.
  - Material Culture, Authority, Social Control conformity and deviance
  - Difference and inequality.
- **Urban Social institutions:**
  - Family, neighborhoods, resident welfare associations, voluntary associations.
- **Urban Social spaces:**
  - House, neighborhoods, mohallas, gardens, parks, streets, malls, markets etc.
  - Social Interaction in public spaces.
- **Disorder and Conflict:**
  - Density and Scale: Disorder, overcrowding, deprivation
  - Community Identity, crisis response, leadership, state negotiation
  - Riots, crimes
  - Ghettoes and Slums
  - Urban Stress and Gender Issues
  - Sick building Syndrome, Epidemics

- **Urban Social Inclusion and harmonious communities**
  - Social and Economic access to urban assets.
  - Barrier Free built environment
  - Non-Discriminatory culture
  - Safe and Secure
  - Effective Social and Physical environment
  - Physical and Mental health
  - Law enforcement

**MAR 353:****Parameters: Regional Planning; Processes and Principles**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- To introduce the concept of regions as planning entity.
- To understand the regional interdependency for sustainable functioning of Region.
- To learn the processes of Regional Planning

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Introduction:**
  - Concepts of Regions as Functional territories.
  - Regions Types
    - Planning region, Resource Region, Cultural region, Urban region, Backward regions, District Planning regions.
- **Regional planning**
  - Region as a comprehensive planning entity.
  - Data Collection: Census and Surveys
  - Demographic Analysis: Socio-Economic status, Migration patterns, population projections.
  - People-Land-Wealth-resource Survey
  - Study of Regional Settlement Patterns
  - Regional Development plan
    - Approaches: Decongestion of Urban Centers, Reverse Migration, Extension of urbanization.



**MAR 354: Urban Regeneration: Integrated Tourism Planning and Development**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- To Study the Policies for the development of the Tourism Sector and understand Integrated Planning and Development Process.
- To learn about the process of urban regeneration driven by tourism development.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Dimensions of Tourism**
  - Heritage Tourism
  - Ecotourism
  - Adventure Tourism
  - Medical/ Education/ Business Tourism
- **Policies & Strategies**
  - National Tourism Policy, State Tourism Policies
  - Global Scenario vis a vis Domestic Scenario
  - Special Tourism Zones and Circuits: North Eastern States, Andaman and Nicobar islands etc Golden Triangle, Pilgrim Circuits;
  - Tourism Dependent Regions
  - Special Tourism Packages, Thrust Strategy
- **Integrated Planning & Development**
  - Urban Regeneration through Tourism Development; Economical Regeneration: Case Studies
  - Mitigation Strategies for the threats due to tourist's inflow.
  - Perspective and Development Matrix
  - Tourism Resources
    - Identifying the Resources and Tourism Potential
    - Carrying Capacity of Tourists Sites
    - Requirements of Tourist Amenities

- Creation of Tourism Circuits and Regions for the Controlled and Sustainable Development of the Region
- Integration of Tourism plan
  - Integrating the Tourism Plan with regional plans, master plans, zonal plans, local area plans, infrastructure plans, transport plans, heritage development etc.
- **Tourism Management**
  - Management Framework (Hierarchy and Role)
  - Ministries, Dept., Agencies in Tourism Management
  - Infrastructure Management in Tourism Sector
  - Human Resource Management in Tourism Sector
  - Visitor Management/ Information Management

MAR 355

**Urban Management: Urban Management: Resource  
Management, Real Estate Management & Disaster Management**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	2	50	50	-	<b>100</b>	3	4

**OBJECTIVE:**

- The course is divided into three sections informing students about the concepts and techniques and Resource management, Real estate management and Disaster Management.

**METHODOLOGY:**

- Lectures and Presentations
- Case Studies by the students

**CONTENTS:**

- **Resource Management:**
  - **Introduction**
    - Definitions of Resources
    - Characteristics of Resources
    - **Classification of Resources**
      - Natural Resources
      - Artificial Resources
      - Human Resources
    - **Value of Resources**
      - Availability: Discussing with examples Abundance, Scarcity, Depletion, Contamination, Crisis
      - Utility: Discussing the use of resources in producing other resources with examples
      - Fiscal value, Industrial Value
  - **Management of Resources**
    - Need for the Management of Resources
    - Basic Techniques of Resource Management
      - Resource Allocation
      - Resource Mobilization
      - Resource Leveling: Minimum Moment Method
      - Resource Optimization
      - Resource Conservation: Reduce, Reuse, Recycle

- **Real Estate Management:**
  - Real Estate Market:
    - Demand-Supply
    - Values and rental structure
    - Economic Cycle
  - Investment and risk assessment techniques:
    - Market Surveys and research
    - Rating system in Real Estate market
  - Agencies in Real-Estate development
  - Enhancing the value of Real estate through urban Regeneration: Case Studies
  
- **Disaster Management:**
  - Case of Disasters: Natural & Man Made
    - Earthquakes, Flood, Tsunami, Fire, Riots, Arson etc.
  - Vulnerability Assessment of Risks in Urban Areas.
  - Pro- Active Approach of Risk Preparedness
  - Organization and Role of Various Agencies and Bodies in Disaster Mitigation.

**MAR 356:****Studio-III (Integration of Regional Context)**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	6	100	-	100	<b>200</b>	-	8

**OBJECTIVE:**

- To enhance the capabilities of working on practical regeneration projects.
- To learn the process of integration of socio-economical, infrastructure, heritage and ecology within the regeneration plans.

**METHODOLOGY:**

- Lectures, Site Surveys, Field Visits (Educational Tours).
- Discussion Forums & Brainstorming Session.
- Interpretative mappings, use of opensource/web-GIS software
- Projections for Population, employment, infrastructure and socio-economic facilities.
- Case Studies (primary & secondary) by students to further the understanding.
- Presentation by students.

**CONTENTS:**

- Selection of Real or Hypothetical project (in real situation) of regional scale.
- The Studio shall focus on integration of the regional context with emphasis on enhancing the capabilities of working on practical regeneration projects and to learn the process of integration of ecology, socio-economical, infrastructure and heritage within the regeneration plans.
- The objective of the studio shall be to move the understanding of the urban phenomena and process to the scale of a region.
- The studio exercise shall focus on the understanding of the urban and regional dynamics and the various factors that play a major role in its functioning, particularly on how the process of urban regeneration is driven by regional development.
- The studio exercise shall focus on taking up one region and assess the environmental, economic, and social forces and prepare strategies, schemes, and specific urban & regional regeneration proposals for the development of the region resulting in a comprehensive regeneration plan for the region.

**MAR 357:****Dissertation-III**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b><i>TOT</i></b>		
0	4	50	-	50	<b>100</b>	-	4

**OBJECTIVE:**

- To further the ability to conduct researches from previous semester.
- To enhance the process of reasoning and analysis as taught in the previous semester for enriched research results.

**METHODOLOGY:**

- Lectures and Presentations on Research Methodology.
- Case Studies (primary & secondary) by students to further the understanding.
- Discussions with individual student during the course of dissertation.

**CONTENTS:**

- Students are required to submit a synopsis identifying the knowledge gap and formulating a case for dissertation.
- The identified research area should be pertaining to the regional context in continuation of the thrust area of the semester.
- *Final Submission will be in the form of three hard copies and one soft copy of their dissertation for evaluation at the semester end.*

**MAR 451:****Research Paper (Futuristic Urbanism)**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	2	50	-	50	<b>100</b>	-	4

**OBJECTIVE:**

- To further the ability to conduct researches from previous semester.
- To enhance the process of reasoning and analysis as taught in the previous semester for enriched research results.

**METHODOLOGY:**

- Lectures and Presentations.
- Case Studies (primary & secondary) by students to further the understanding.
- Discussions with individual student during the course of dissertation.

**CONTENTS:**

Students are required to submit a synopsis identifying a topic focusing on Future of Urbanism. The research paper will conduct enquiry into the possible forms of urbanism like vertical cities, underwater cities, ecological cities, vertical gardens and agriculture etc;

**MAR 452:****Thesis**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	14	200	-	200	<b>400</b>	-	16

**OBJECTIVE:**

- To culminate the entire understanding of previous semesters through the Thesis.

**METHODOLOGY:**

- Lectures and Presentations.
- Discussion Forums & Brainstorming Session.
- Case Studies (primary & secondary) by students to further the understanding.
- Interpretative mappings, use of open-source/web-GIS software
- Projections for Population, employment, infrastructure and socio-economic facilities within the thesis projects.
- Presentation by students.

**CONTENTS:**

Students should identify a thesis area pertaining to the Theory, Design, Planning or Management aspects of Urban Regeneration. The scale and complexities of the thesis vary in each case.

The Output has to be presentation(s) before jury in the form of primary and secondary data, maps, illustrations, drawings reflecting the proposals of the thesis.

The submissions have to be the set of sheets and three copies of thesis reports along with the soft copies of the submission.

All the secondary information used should be duly given citations and the copyright norms should be respected.



**MAR 453:**

**Seminar (Urban Management)**

CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<b>TOT</b>		
2	6	100	-	100	<b>200</b>	-	8

**OBJECTIVE:**

- To study the management aspects related to the Thesis topic and formulate a management framework or proposals.

**METHODOLOGY:**

- Lectures and Presentations.
- Case Studies (primary & secondary) by students to further the understanding.
- Discussions with individual student during the course of dissertation.

**CONTENTS:**

Students are required to select a management aspect associated with the Thesis Project. The output should be in the form of management framework or proposals that augments the Thesis Project.