

M.Arch. (Urban Regeneration)

Course Curriculum Revised from 2026-27

Program Structure and Scheme of Examination

Semester 1										
Course Category	Course Code	Course Title	Hours per week		Marks				Exam (Hrs)	Credit
			L	ST/TU	IA	WR	VV	Total		
OE	MUR 151	History and Theory of Urbanisation	2	1	30	45		75	3 Hrs	3
PE	MUR 152	Urban Economics and Governance	2	1	30	45		75	3 Hrs	3
PC	MUR 153	Urban Regeneration: Paradigms and Strategies 1	2	1	30	45		75	3 Hrs	3
PC	MUR 154	Project : Regenerative Communities Studio	2	6	100	-	100	200	-	8
SEC	MUR 155	Seminar : Artificial Intelligence and Urban Informatics	1	2	30	-	45	75	-	3
		Total	20					500		20
Semester 2										
Course Category	Course Code	Course Title	Hours per week		Marks				Exam (Hrs)	Credit
			L	ST/TU	IA	WR	VV	Total		
OE	MUR 251	Urban Sociology	2	1	30	45		75	3 Hrs	3
PE	MUR 252	Theory of Urban Planning and Urban Design	2	1	30	45		75	3 Hrs	3
PC	MUR 253	Urban Regeneration: Paradigms and Strategies 2	2	1	30	45		75	3 Hrs	3
PC	MUR 254	Project : Regenerative Cities Studio	2	6	100	-	100	200	-	8
SEC	MUR 255	Seminar : Digital Urbanism	1	2	30	-	45	75	-	3
		Total	20					500		20

Semester 3										
Course Category	Course Code	Course Title	Hours per week		Marks				Exam (Hrs)	Credit
			L	ST/ TU	IA	WR	VV	Total		
OE	MUR 351	Urban Ecology	2	1	30	45		75	3 Hrs	3
PE	MUR 352	Regional Planning Theory	2	1	30	45		75	3 Hrs	3
PC	MUR 353	Urban Regeneration: Paradigms and Strategies 3	2	1	30	45		75	3 Hrs	3
PC	MUR 354	Project : Regenerative Cities-Regions Studio	2	6	100	-	100	200	-	8
SEC	MUR 355	Seminar : Pre-thesis	1	2	30	-	45	75	-	3
		Total	20					500		20
Semester 4										
Course Category	Course Code	Course Title	Hours per week		Marks				Exam (Hrs)	Credit
			L	ST/ TU	IA	WR	VV	Total		
PC	MUR 451	Thesis Project	-	16	200	-	200	400	-	16
SEC	MUR 452	Seminar: Urban Management	-	4	50	-	50	100	-	4
		Total	20					500		20
Grand Total										
					Marks					Credit
					2000					80

OE: Open Elective
Course L: Lecture
Voce

PE: Professional Elective
ST/TU: Studio/Tutorial

PC: Professional Core
SEC: Skill Enhancement
IA: Internal Assessment

WR: Written Exam

VV: Viva

MUR 151		History and Theory of Urbanisation				OE	
CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
L	ST/TU	IA	WR	VV	TOT		
2	1	30	45	-	75	3	3

Masters of Architecture (Urban Regeneration)

Semester 1

OBJECTIVE:

- To introduce the emergence and evolution of urban settlements and various associated theories. This course acts as a theoretical foundation for the program.

METHODOLOGY:

- Lectures and Presentations
- Case Studies presented as seminar by the students

CONTENTS:

Unit 1: Emergence of Early Urban Settlements

- Origin of Human Settlements: Advent of fire and agriculture; transition from hunter-gatherer to cultivators; first settlements such as hamlets and villages; Neolithic revolution
- Advent of economy; food surplus, barter system, division of labour and trade systems; emergence of market places and early towns.
- Early Urban Settlements: Advent of wheel and trade routes; Bronze Age, Emergence of river valley civilisations e.g. Mesopotamia, Indus Valley, Nile etc.

Unit 2: Urban Morphology

- Early urban settlement types such as Trade towns, Port towns, Military/ Defence towns etc;
- Urban form, Street patterns- Grid-Iron, Radial etc, Socio-economic hierarchy in settlement
- Components of urbanisation e.g. Fortification, Citadel, Market, Temples and Religious places, Granary, Public Baths, Circus, Squares, Maidan etc.

Unit 3. Medieval Cities

- Advent of Art, Science, Literature and Culture; Evolution of cities as cultural centres in medieval times e.g. Athens, Rome, Baghdad, Florence, Venice, Berlin, Paris, London, Beijing etc
- Indian Examples: Temple towns like Thanjavur, Ujjain, Varanasi, Puri; Islamic cities like Ajmer, Jaunpur, Delhi, Agra, Shahjahanabad; Provincial capitals like Jaipur, Lucknow, Bhopal etc

Unit 4: Industrial Revolution

- Invention of Steam Engine; Emergence of Industries, Rise in the worker population, London as the first Metropolitan city in 1800.
- Emergence of slums; Pollution due to Industrial activities, Poor sanitation, Epidemics like tuberculosis, cholera, typhoid, plague etc; Decay of cities; Emergence of Public Health Engineering

(PHE), Chadwick Report (1842), The great stink of London (1858), Water treatment and Sewerage systems.

Unit 5: Colonial Urbanisation

- Port towns, Civil Lines, Cantonments, Sadar Bazar, Universities, Mills, Worker housing such as Chawls, Railways, Capital Cities.e.g. Pondicherry, Panjim, Kochi, Chandannagar, Kolkata (Calcutta), Chennai (Madras), Mumbai, New Delhi etc

Unit 6: Modern Urban Planning

- Advent of automobile, Garden City, Neighbourhood, Radburn, etc; International Congress of Modern Architecture (CIAM), The Functional City, Radiant City e.g. Washington DC, Canberra, New Delhi, Chandigarh, Bhubaneswar, Gandhinagar, Indore etc
- Emergence of City-Regions: Cities in Evolution (1915) by Patrick Geddes, Conurbation, Suburbanisation, Satellite towns, Counter Magnets, Regional Plans.

Unit 7: Post Modern Urbanisation

- Urban Renewal programs in US, Jane Jacobs: The Death and Life of Great American Cities, Conservation of Historic Core, Walkability, New urbanism, Mixed Use Planning
- Emergence of Mega-Cities such as Tokyo, SaoPaulo, Delhi etc Crossing of 50% global urban population in 2007

Unit 8: Indigenous Urbanisation

- Indigenous Settlements such as Historic Cores, Urban Villages; Informal Settlements such as Slums, Squatters and Unauthorised Colonies.
- Slum renewal and redevelopment schemes, gentrification
- e.g. Dharavi, favela, barrios, Hauz Khas, Khirki, Jamia Nagar etc.

MUR 152		Urban Economics and Governance					PE
CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST/TU</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
2	1	30	45	-	75	3	3

Masters of Architecture (Urban Regeneration)

Semester 1

OBJECTIVE:

- To inform students about the organisation, structure, roles and responsibilities of various agencies in local urban governance.
- To inform about the Sources of Funding, Financial models and methods of Financial Feasibility of projects.

METHODOLOGY:

- Lectures and Presentations
- Case Studies of regeneration projects highlighting urban governance and funding framework by the students

CONTENTS:

Section 1: Urban Governance

Unit 1: The Constitution of India

- Preamble of the Constitution of India, Principles of Democracy and Socialism
- 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.

Unit 2: Urban Governance Hierarchy

- Union Government: Ministry of Housing and Urban Affairs
- Central Planning Commission: Five Year Plans
- State Government, Ministries and Departments
- District Administration, Municipalities, Sub-Divisional Administration, Block Development, *Panchayat*

Unit 3: Statutory Framework

- Decentralisation: The 72nd, 73rd & 74th Amendment
- Town and Country Planning Acts e.g. MCD Act, DDA Act, Cantonment Board Act, Land Acquisition Act, Rent Control Act, Slum Act, Transit Oriented Development Policy, Land-pooling Policy, Housing Policy
- Master Plans, Regional Plans, Building Bye-Laws

- Environment Laws: Forest Protection Laws, Wildlife Conservation Law, Coastal Regulation Zone, Prevention & Control of Pollution Act, Environmental Impact Assessment
- Urban Conservation: HUL, ITUC, AMASR Act, National Monument Authority, Heritage Impact Assessment, Heritage Bye Laws, World Heritage Convention, UNESCO Charters.

Unit 4: Urban Local Bodies

- Municipal Corporations, Municipal Councils, Development Authorities, Urban Improvement Trusts (Rajasthan)
- Constitution and Role & Responsibilities of Urban Local Bodies
- Case of Delhi: NCRPB, NDMC, MCD, DDA, PWD, DJB, DUAC, DFS, DUSIB, DDMA, CPCB, DMRC, Delhi Police, Cantonment Boards, Forest Department, Flood and Irrigation Department, Heritage Conservation Committee etc;
- The process of getting statutory approval of a development or regeneration project from various agencies in Delhi.
- Discuss overlaps and conflicts of roles and responsibilities.

Section 2: Urban Economics

Unit 5: Municipal Finance:

- Cities as economic functions
- Municipal revenue: Taxation, Licence and Fees e.g. House Tax, Commercial Tax, Commercial Licence, User Fees on utilities, User Fees on Parking, Toll Tax etc.
- Municipal Bonds, Green Bonds etc

Unit 6: Funding:

- Sources of Funding: Union Budget, Planning Commission Allocation
- Central funding under Urban Challenge Fund, Smart Cities Mission, JNNURM, SEZ, Export Promotion Zones etc
- Sources of Non-Govt. funding; UNDP, ADB, JICA, CSR, NGO's, Private Sector etc

Unit 7: Financial Model:

- Public Private Partnerships
- Concessionaire model
- Design-Build-Own-Operate-Transfer
- Cost-Sharing

Unit 8: Economic and Financial Feasibility Analysis

- Demand-Supply relationship, Cost-Benefit Analysis, Cost-Recovery methods. Break-Even point
- Risk and uncertainty analysis

MUR 153		Urban Regeneration: Paradigms and Strategies 1				PC	
CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
L	ST/TU	IA	WR	VV	TOT		
2	1	30	45	-	75	3	3

Masters of Architecture (Urban Regeneration)

Semester 1

OBJECTIVE:

- To inform students about concepts and 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 of best practices in urban regeneration by the students

CONTENTS:

Unit 1: Introduction

- Decay and degeneration of urban settlements: Industrial Revolution and decay of cities, epidemics, slums, pollution. Rapid urbanisation in the twentieth century and consequent degeneration of cities.
- Evolution of Disciplines: Landscape Architecture by Harvard in 1900, Urban Planning by University of Liverpool 1909, Sanitary Engineering in 1910s by Harvard, Urban Design by Harvard in 1960, Historic City Preservation by University of Columbia in 1964, Introduction of Urban Regeneration by Sir Peter Hall at Bartlett School, University College London (UCL) in 2001.
- Need of Regeneration: Failure of new cities in past century, Urban Planning has led to urban expansion, Green field urbanisation is impacting environment, Regeneration is holistic and sustainable solution.
- Definitions and Terminologies: Revival, Restoration, Renewal, Reuse, Rehabilitation, Resettlement, Redevelopment
- Definition and Scope of Regeneration: Physical, Social, Economic and Ecological regeneration.
- Values of Urban Regeneration: Up-gradation of Physical Environment, Safe and Comfortable, Inclusive Social and Community living, Economically feasible, Universal Designs, Ecologically Sustainable

Unit 2: Urban Regeneration Paradigms

- Regenerative Architecture, Biophilic Architecture

- Green Cities
- Water Sensitive Urban Design and Planning (WSUDP)
- Nature Based Solutions (NBS), Blue-Green Infrastructure, Urban Agriculture
- Pedestrianisation, Bicycle and NMT, 15 Minute Cities,
- Adaptive Reuse, Heritage and Industrial districts regeneration
- Slum up-gradation, Housing up-gradation, Market Regeneration

Unit 3: Programs and Projects (List is Dynamic)

- India: Jawahar Lal Urban Renewal Mission (JNNURM), AMRUT, HRIDAY, Smart City Mission (SCM), Railway Station Redevelopment Projects, Chandni Chowk Redevelopment, Galiyara Project Amritsar, Street Redevelopment in Pune, Lal Bazar Redevelopment Srinagar, Corridor development in Varanasi, Ujjain and Puri etc
- International: Barcelona Superblocks (Superilles) Spain, Cheonggyecheon Restoration Project South Korea, Favela-Bairro Program Brazil, Green Corridors (Corredores Verdes) Colombia, Docklands Regeneration Scheme Australia, Letchworth & Garden City Heritage Renewal Schemes United Kingdom, Urban Redevelopment Authority (URA) Master Plan Singapore, Choice Neighbourhoods Initiative United States, Paris 15-Minute City (Ville du Quartier d'Heure) France, Bilbao Effect Spain.

MUR 154		Project : Regenerative Communities Studio					PC
CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
L	ST/TU	IA	WR	VV	TOT		
2	6	100	-	100	200	-	8

Masters of Architecture (**Urban Regeneration**)

Semester 1

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 & Brainstorming Session.
- Case Studies (primary & secondary) by students to further the understanding.
- Workshops and Presentation by students.

CONTENTS:

1. 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.

2. Study of Urban Neighbourhood/Community

The Study will be based on selecting a real precinct to the scale of neighbourhood level in urban situation and conducting a comprehensive studio exercise on the same. Identifying a precinct (neighbourhood level) in an urban situation (after brainstorming session) for detailed study and studio project.

2.1 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.

2.2 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.

Identification of issues and causes pertaining to the urban situation. Carrying out Issue Analysis using Issue Matrix etc Cause-Effect Diagram, Problem Tree, Chord Diagram

2.3 Pre-Final Stage:

Developing Regenerative Intervention Strategy to solve the issues. Creating scenarios to validate the strategy. Translating the strategy into proposals and projects.

2.4 Final Stage:

Demonstration of Proposals and Projects using drawing, renderings, model etc

MUR 155		Seminar : Artificial Intelligence and Urban Informatics				SEC	
CLASSES/ WEEK		MARKS				EXAM HOURS	CREDITS
<i>L</i>	<i>ST/TU</i>	<i>IA</i>	<i>WR</i>	<i>VV</i>	<i>TOT</i>		
1	2	30	-	45	75	-	3

Masters of Architecture (Urban Regeneration)

Semester 1

OBJECTIVE:

- To develop the data research and analytical skills along with the application of Artificial Intelligence.

METHODOLOGY:

- Lectures and Tutorials
- Students shall apply the learnings in the studio project and document the same in a report

CONTENTS:

Unit 1: Urban Data Sources

- Demographical Data, Census, Economic Surveys, NSSO, Electoral List
- District Profiles, ULB Data, Master Plans etc.
- Land records e.g. Bhulekh etc
- Application of AI to search data

Unit 2: Data Analysis and Visualisation

- Quantitative Analysis: Mean, Mode, Median, Frequency, Average
- Variables: Dependent and Independent; Correlation Analysis
- Data Visualisation: Graphs, Charts, Tables etc
- Application of AI to analyse data and generate visualisation

Unit 3: Basic 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: ArcGIS, QGIS.
- Integration of AI to GIS

Unit 4: Photogrammetry and Documentation

- Use of Photography to document a site, Use of Photogrammetry and Lidar to document and survey a site.
- Use of Photography and Photogrammetry to generate 3-D model of the site.
- Application of AI to generate intervention renderings.