

Master of Urban Design (M.U.D.)

**Course Structure and Detailed Syllabus for
Two-years Masters Degree Programme**

Effective from the Academic year 2026-27 onwards



योजना तथा वास्तुकला विद्यालय, विजयवाड़ा
School of Planning and Architecture, Vijayawada

An Institute of National Importance, Ministry of Education, Govt. of India

Introduction

School of Planning and Architecture Vijayawada offers a Two year Four Semester Master's Program titled **"Master of Urban Design" (MUD)** in line with the **Gazette of India notification by University Grants Commission (Specification of Degrees)** with the approval dated **March 03, 2022** of the **Government of India**, mentioning **Master of Urban Design (Minimum duration 2 years)** as a **New Specified Degree**.

Curriculum Brief

Urban Design course emerged in recent years globally to broaden the perspectives on Urban interventions in complex urban environments considering various social, behavioural, environmental, historical factors for formulating design and development strategies. Today, cities are under immense morphological transformation, triggered by various factors both planned and unplanned. The course offers documentation of dynamic aspects of growth and transformation in various cities and provides direction for further Urban development, Urban Redevelopment, Urban Renewal, Urban Conservation, Urban Retrofitting, Green field development and new growth strategies at varying scales through broad range of subjects and interactive design studio projects.

India being in the forefront of rapid Urbanization in the current years, the most important challenges would be to provide the basic amenities without disturbing the ecological balance. In this context, Urban Design programme becomes offers learning diverse issues of development at Urban level with focus on design with rationality, inclusivity, functionality, liveability and sustainability. Urban Design programme encourages multidisciplinary approach and ideologies through dissemination of various theories and concepts of urban interventions.

OBJECTIVES

- 1) **To demonstrate the critical understanding, documenting and researching cities through various initiatives as part of the curricular Studios and Labs**
- 2) **To equip students the students with required theoretical and practical knowledge in the realm of Urban Design**
- 3) **To develop a Multi-disciplinary learning environment for the students and engage them in diverse ways of learning**
- 4) **To develop a professional interface and engagement with the cities to contribute to societal needs**
- 5) **To periodically develop the teaching learning process and pedagogical initiatives through diverse environments**
- 6) **To strengthen the research base in the Urban context, contribute to the research ecosystem and add value to the body of knowledge**

The programme will not only benefit many Architects in the region but will also encourage learning through research and practise focused towards urban development in the cities across the globe. Through its demonstration of various projects, it shall guide the local authorities and development organizations towards achieving wholeness in the complex built environments. The programme builds a continuous systematic enquiry into the rapid urban development, towards making cities culturally responsive and people-centric in nature.

CURRICULUM STRUCTURE

The overall structure of the Curriculum is designed to focus on the student centric and diverse learning that is required for the program with the scope for research and self-exploration. Strong theoretical foundation is very much essential to inform students about various dimensions and theories of Urban Design. The idea is to have higher emphasis on Theoretical learning in the initial semesters and Core learning as well as research in the later semesters.

The curriculum is equipped with scope for more theoretical learning in the initial semesters. Core learning is through Studios and Labs in the course which first orients students' to various types of urban issues that are varying in scale and then develop guided Urban interventions at these varying scales. Role of Lab at the second semester is to equip the students with the ongoing research worldwide and to instil a sense of research and inquiry into cities in line with the Studio.

Summer Internship at the end of Second Semester (during the summer break) is an opportunity to connect to the practising world, where the students can engage and co-learn with Urban development practitioners/Experts, Development agencies, Urban Designers, Urban local bodies like Municipal Corporations, Research and/or Academic Institutions, Development Authorities, Non-partisan groups, NGO's and alike so as to learn more about the organic or guided city development and social initiatives. Third Semester focus is to strengthen the core learning and research through community engagement in the Studio and Participatory planning and techniques subject. Urban Design dissertation subject acts as a preparatory stage for building up required theoretical enquiry for the Urban Design Thesis.

Table: Overall Curriculum Structure

	Semester I	Semester II	Semester III	Semester IV
Theoretical Foundation	Introduction to Urban Design	Planning techniques for Urban Design	Real Estate Management	
	Urban History, Theory and development	Urban Mobility		
	Urban Ecology and Site Planning			
Core Learning and Research	Urban Design Studio-I	Urban Design Studio-II	Urban Design Studio-III	Urban Design Thesis
		Urban Design Research Lab	Urban Design Dissertation	
			Participatory Planning and Techniques	
Practise based learning	Geoinformatics for Urban Design	Summer Internship		Seminar and Report writing
Choice based Diverse Learning	Humanizing Cities	Liveable Cities	Urban Policy and Management	Open Elective
	Imagining Cities-I	Imagining Cities-II	Open Elective	Project Planning and Finance
	Communication in Urban Design	Open Elective/Inter Institutional Elective	Inter departmental/Inter-Institutional Elective	
	Urban Conservation	Environmental Impact Assessment		

The course culminates into the Urban Design Thesis in the final semester, which is an independent research and design on a topic or area of interest that structures to address the current global issues that the cities are facing.

The diverse learning, as elaborated in the **National Education Policy 2020**, through allied subjects are offered through electives (13) across all semesters, with more options in the first two semesters.

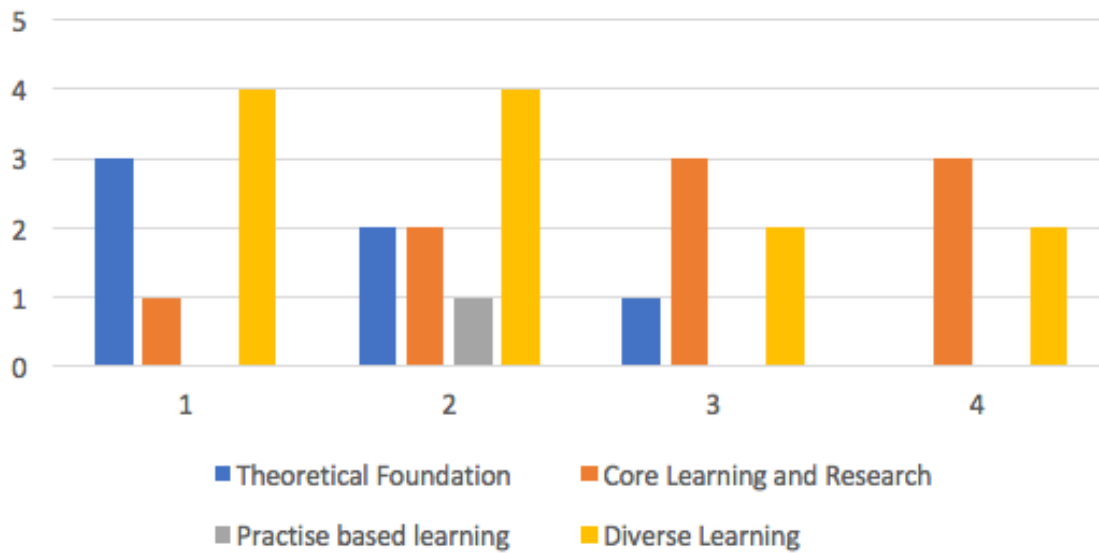


Figure 1: Conceptual Structure of the Syllabus

The above graphic shows the conceptual structure of the curriculum and the way students are equipped with various means of learning as they progress upwards in the course.

Master of Urban Design : Course Structure & Examination Scheme												
First Semester												
Course Category	Subject Code	Subject	Classes				Credits	Examination Scheme	Marks			
			Lecture Hrs/Week	Tutorial Hrs/Week	Studio Hrs/Week	Total Hrs/Week			Internal Assessment	External Assessment	Jury / Viva-Voce	Total Marks for Grade conversion
Core Subject	MUD1101	Introduction to Urban Design	2	1	-	3	3	Internal Assessment + Written Exam (TC)	50	50	-	100
	MUD1102	Urban History and development theory	2	1	-	3	3	Internal Assessment + Written Exam (TC)	50	50	-	100
	MUD1103	Urban Design Studio- I (Brownfield Design)	2	-	8	10	10	Internal Assessment+ Viva-Voce/Jury (SC)	200	-	200	100
	MUD1104	Urban Ecology and Site Planning	1	-	2	3	3	Internal Assessment + Written Exam (TC)	50	50	-	100
	MUD1105	Geoinformatics for Urban Design	2	1	-	3	3	Internal Assessment (IA)	100	-	-	100
Elective-1 (Any One)	MUD1106	Humanizing Cities	2	1	-	3	3	Internal Assessment (IA)	100	-	-	100
	MUD1107	Imagining Cities -I										
	MUD1108	Communication in Urban Design										
	MUD1109	Urban Conservation										
		Course from SWAYAM/ MOOC/Online course (as PBOC)	-	-	-	-	-					
		TOTAL	11	4	10	25	25		550	150	200	600

Master of Urban Design : Course Structure & Examination Scheme														
Second Semester														
Course Category	Subject Code	Subject	Classes				Credits	Examination Scheme	Marks				Total Marks for Grade conversion	
			Lecture Hrs/Week	Tutorial Hrs/Week	Studio Hrs/Week	Total Hrs/Week			Internal Assessment	External Assessment		Marks		
Core Subject	MUD1201	Planning techniques for Urban Design	2	1	-	3	3	Internal Assessment + Written Exam (TC)	50	50	-	100	100	
	MUD1202	Urban Mobility	2	1	-	3	3	Internal Assessment + Written Exam (TC)	50	50	-	100	100	
	MUD1203	Urban Design Studio- II (Greenfield Design)	2	-	10	12	12	Internal Assessment+ Viva-Voce/Jury (SC)	250	-	250	500	100	
	MUD1204	Urban Design Research Lab	2	-	2	4	4	Internal Assessment+ Viva-Voce/Jury (JC)	50	-	50	100	100	
Elective-2 (Any One)	MUD1205	Liveable Cities	2	1	-	3	3	Internal Assessment (IA)	100	-	-	100	100	
	MUD1206	Imagining Cities -II						Internal Assessment + Written Exam (TC)	50	50	-			
	MUD1207	Open Elective/Inter Institutional Elective												
	MUD1208	Environmental Impact Assessment												
		Course from SWAYAM/ MOOC/Online course (as PBOC)	-	-	-	-	-							
		TOTAL	10	3	12	25	25		500	150	300		500	
Note: Compulsory Summer Internship/Training after second semester to be undertaken by the Student, to be evaluated along with the ' Internship Certificate' at the end of Third Semester														

Master of Urban Design : Course Structure & Examination Scheme												
Third Semester												
Course Category	Subject Code	Subject	Classes				Credits	Examination Scheme	Marks			
			Lecture Hrs/Week	Tutorial Hrs/Week	Studio Hrs/Week	Total Hrs/Week			Internal Assessment	External Assessment	Jury / Viva-Voce	Total Marks for Grade conversion
Core Subject	MUD2101	Participatory Planning and Techniques	2	1	-	3	3	Internal Assessment (IA)	100	-	-	100
	MUD2102	Urban Design Studio- III (Local Area Planning)	2	-	10	12	12	Internal Assessment+ Viva-Voce/Jury (SC)	250	-	250	100
	MUD2103	Urban Design Dissertation	2	1	-	3	3	Internal Assessment+ Viva-Voce/Jury (JC)	50	-	50	100
	MUD2104	Real Estate Management	2	1	-	3	3	Internal Assessment + Written Exam (TC)	50	50	-	100
	MUD2105	Summer Training/Internship (08 Weeks after Semester-II)	-	-	-	-	2	Internal Assessment (IA)	100	-	-	100
Elective-3 (Any One)	MUD2106	Urban Policy and Management	2	1	-	3	3	Internal Assessment + Written Exam (TC)	50	50	-	100
	MUD2107	Open Elective										
	MUD2108	Inter departmental/Inter-Institutional Elective (Online/Physical Mode)										
		Course from SWAYAM/ MOOC/Online course (as PBOC)	-	-	-	-						
		TOTAL	10	4	10	24	26		600	100	300	600

Master of Urban Design : Course Structure & Examination Scheme													
Fourth Semester													
Course Category	Subject Code	Subject	Classes				Credits	Examination Scheme	Marks				Total Marks for Grade conversion
			Lecture Hrs/Week	Tutorial Hrs/Week	Studio Hrs/Week	Total Hrs/Week			Internal Assessment	External Assessment		Jury / Viva-Voce	
Core Subject	MUD2201	Urban Design Thesis	2	7	6	15	15	Internal Assessment+ Viva-Voce/Jury (SC)	600	-	400	1000	100
	MUD2202	Seminar and Report Writing	2	4	0	6	6	Internal Assessment (IA)	100	-	-	100	100
Elective- 4 (Any one)	MUD2203	Open Elective	2	1	0	3	3	Internal Assessment + Written Exam (TC)	50	50	-	100	100
	MUD2204	Project Planning and Finance											
		Course from SWAYAM/ MOOC/Online course (as PBOC)	-	-	-	-							
		TOTAL	6	12	6	24	24		750	50	400		300
TOTAL All Semester						98	100						2000

TC - Theory Course

JC - Jury Course

SC - Studio Course

IA - Internal Assessment only

* Note: The absolute marks awarded as given above will be proportionately converted to a "Total Marks" of 100 for Grade conversion

SUMMARY OF MARKS AND CREDIT DISTRIBUTION

Semester No	IA	TC	JC	SC	Total Marks	Total Periods	Total Credits
Semester 1	200	300	-	400	900	25	25
Semester 2	100	200	100	500	900	25	25
Semester 3	200	200	100	500	1000	24	26
Semester 4	100	100	-	1000	1200	24	24
Total	500	800	300	2400	4000	98	100

TC -Theory Course

JC - Jury Course

SC - Studio Course

IA - Internal Assessment only

MUD DETAILED SYLLABUS

FIRST SEMESTER

MUD1101 – Introduction to Urban Design	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

The course aims to introduce students to the theoretical foundations, principles and practices of Urban Design by examining the relationship between architecture, urban design, and planning. It seeks to develop an understanding of urban form, public spaces, place-making, and urban morphology through historical and contemporary examples. The course also intends to familiarize students with urban design interventions and the social, cultural, and ethical dimensions of cities, enabling them to critically interpret and shape urban environments at multiple scales.

Content:**Unit I Introduction and Scope 9**

Defining Urban Design, Relationship between Architecture, Urban Design and Planning; Brief review of the evolution of urban design as a discipline, basic principles and theories, Urban Design terminologies. Size, shape and form of cities through examples from historic cities.

Unit II Elements of Urban Design 12

Understanding the city as a three-dimensional element; Urban form as determined by interplay of masses, voids, order, scale, harmony, symmetry, colour and texture, townscape elements and related examples; Organization of spaces and their articulation in the form of squares, streets, vistas and focal points; Concept of public open space; Image of the city and its components.

Unit III Public Space and Place-Making 9

Concepts of "Space" vs "Place"; the social logic of public environments. Behavioural Observation: Studying the social life of small urban spaces, Relationship of Cities and People. The Ethics of Cities: Diversity, social justice, and the "Right to the City".

Unit - IV Typologies and Procedures 6

Urban Design and the Urban Designer, Concepts of public and private realm; Understanding different types and procedures of urban design interventions; constraints and challenges of urban design in democratic versus authoritarian settings.

Unit - V Urban Morphology: The Science of Urban Tissue 9

Introduction to Morphological Schools: The British School (Conzenian), Italian School (Muratorian), and French School. Figure-Ground Analysis. Analysing the ground plan (street, plot, building), urban grain, and "burgage cycles".

Total: 45 Periods**Learning Outcome:**

By the end of the course, students will develop an understanding of the theories, principles, and processes of Urban Design and their relationship with architecture and planning. They will be able to analyze urban form, public spaces, and urban morphology, interpret the social and spatial dimensions of cities.

References:

- Bacon, E. N. (1974). Design of cities. Thames & Hudson.
- Hall, P. (1982). Great planning disasters. University of California Press.
- Hall, P. (2002). Cities of tomorrow: An intellectual history of urban planning and design in the twentieth century. Blackwell Publishers.
- Jacobs, J. (1961). The death and life of great American cities. Vintage Books.
- Jacobs, J. (1969). The economy of cities. Vintage Books.

- Kostof, S. (1992). *The city assembled: The elements of urban form through history*. Little, Brown and Company.
- Krier, R. (1979). *Urban space*. Academy Editions.
- Lang, J. T. (2005). *Urban design: A typology of procedures and products*. Elsevier/Architectural Press.
- Lynch, K. (1960). *The image of the city*. MIT Press.
- Lynch, K. (1972). *What time is this place?* MIT Press.
- Lynch, K. (1981). *A theory of good city form*. MIT Press.
- Marshall, S. (2009). *Cities, design and evolution*. Routledge.
- Mumford, L. (1961). *The city in history: Its origins, its transformations, and its prospects*. Harcourt, Brace & World.
- Rogers, R., & Gumuchdjian, P. (1998). *Cities for a small planet*. Westview Press.
- Rossi, A. (1995). *The architecture of the city*. MIT Press. (Use this if you are referring to the English translation. If you actually used the Italian edition, cite that edition instead.)
- Spreiregen, P. D. (1965). *Urban design: The architecture of towns and cities*. McGraw-Hill.
- Watson, D., Plattus, A. J., & Shibley, R. G. (2003). *Time-saver standards for urban design*. McGraw-Hill.

MUD1102 - Urban History and Development theory	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

The objective of the course is to introduce students to the theories of development, urbanization, and the historical evolution of cities and urban systems. The course aims to develop an understanding of the relationship between economic, social, political, and cultural processes and their influence on urban form, city structure, and spatial organization. It further examines the evolution of urban settlements and city typologies across historical periods with particular emphasis on Indian urbanism, colonial transformations, and the morphological dimensions of urban patterns relevant to Urban Design.

Content:**Unit – I City systems – Types & Form 6**

City as a complex system in History, continuity and transformation. City types and form - evolution of city form.

Unit - II Evolution of the city 9

Medieval cities, Renaissance and Baroque cities, Colonial Cities. Evolution of city from architecture to public space.

Unit - III Theories of Development and Urbanization 9

The notion of "Development" vs "Growth"; theories of modernization and dependency Urbanization as a global process; the "Urban Revolution" and the shift from agricultural to industrial society.

Unit - II Spatial Dimensions Economics and Location Theory 12

History of economic thought and spatial dimensions of economic thought. Spatial Political Economy: How capital and power are spatialized in the built environment. History of economic thought from a spatial lens (Smith, Marx, Mill, Keynes). Urban Economics, Agglomeration economies and the forces of concentration vs dispersion in city growth.

Unit - V Indian Urbanism: Indigenous and Colonial Narratives 9

Ancient Indian planning: Vedic principles, Harappan morphology, and environmental intelligence. The Mughal "Bazaar" city and the socio-spatial structure of Indian Cities. The "Dual Urban Structure": Colonial ruptures, Cantonments, Civil Lines, and the divided city.

Total: 45 Periods

Learning Outcome:

Students will gain an understanding of the historical evolution of cities, theories of urbanization and development, and the relationship between economic, social, and spatial processes in shaping urban form. The course will enable students to analyze city structures, urban patterns, and typologies, with particular emphasis on Indian urbanism and the transformation of cities through different historical periods relevant to Urban Design practice.

References:

- Alexander, C., Ishikawa, S., & Silverstein, M. (1977). A pattern language: Towns, buildings, construction. Oxford University Press.
- Alonso, W. (1964). Location and land use. Harvard University Press.
- Bacon, E. N. (1976). Design of cities. Penguin Books.
- Barnett, J. (1982). An introduction to urban design. Harper & Row.
- Carmona, M., Heath, T., Oc, T., & Tiesdell, S. (2010). Public places, urban spaces: The dimensions of urban design. Architectural Press.
- Cullen, G. (1978). The concise townscape. Architectural Press.

- Glaeser, E. L. (2011). *Triumph of the city*. Penguin Press.
- Gosling, D., & Maitland, B. (1984). *Urban design*. St. Martin's Press.
- Hall, P. (2002). *Cities of tomorrow: An intellectual history of urban planning and design since 1880* (3rd ed.). Blackwell Publishing.
- Hosagrahar, J. (2005). *Indigenous modernities: Negotiating architecture and urbanism*. Routledge.
- Kostof, S. (1991). *The city shaped: Urban patterns and meanings through history*. Thames & Hudson.
- Kostof, S. (1992). *The city assembled: The elements of urban form through history*. Thames & Hudson.
- Lefebvre, H. (2003). *The urban revolution* (R. Bononno, Trans.). University of Minnesota Press. (Original work published 1970)
- Morris, A. E. J. (1996). *History of urban form before the industrial revolution* (3rd ed.). Prentice Hall.
- Ramachandran, R. (1989). *Urbanisation and urban systems in India*. Oxford University Press.
- Rossi, A. (1982). *The architecture of the city*. MIT Press.

MUD1103 – Urban Design Studio-I (Brownfield Design)	Subject Category	SC
	Number of Credits	10
	Lecture Periods per Week	2
	Practical/Studio/Workshop Periods per Week	8
	Total Periods per Week	10

Objective:

The studio serves as Foundation to the gradual intellectual progression from understanding the city, its public realm to intervening in it strategically. The objective is to expose them to the complexities of the design process through analytical and exploratory design exercises in urban areas.

Content:

Studio establishes a common understanding of urban space, public realm, urban morphology, mobility and urban processes through observation, documentation, spatial analysis and urban interventions. Emphasis is laid on reading the city not merely as collection of buildings, but as a layered system of streets, public spaces, movement patterns, activities and social interactions in an environmental setting. The studio will also familiarize the students with urban design terminologies, methods of surveys, field documentation, behavioural observation and public space analysis at a precinct level. Urban interventions are demonstrated primarily in brownfield areas within the core areas of the city or regenerating inner city areas.

Additionally, the design workshop integrated with the studio shall assist the students in acquiring skills of documentation, analysis and representation of human networks. The workshop will include interactive seminar sessions with invited professionals who will demonstrate design development process of projects, their funding, management, implementation and any other relevant issues pertaining to design and development.

Total: 150 Periods

Learning Outcome:

Students will learn to appreciate, understand and analyse real contextual conditions in an urban area, through mapping and representation, visual surveys, spatial analytical diagrams, urban sketches and documentation techniques for programming the design interventions.

References:

- Bacon, E. N. (1974). *Design of cities*. Thames & Hudson.
- Correa, C. (1989). *The new landscape: Urbanization in the Third World*. Butterworth Architecture.
- Giedion, S. (2009). *Space, time and architecture: The growth of a new tradition* (5th ed.). Harvard University Press.
- Hall, P. (1980). *Great planning disasters*. University of California Press.
- Hall, P. (1996). *Cities of tomorrow: An intellectual history of urban planning and design in the twentieth century* (Rev. ed.). Blackwell.
- Jacobs, J. (1961). *The death and life of great American cities*. Vintage Books.
- Kostof, S. (1992). *The city assembled: The elements of urban form through history*. Bulfinch Press.
- Krier, R. (1979). *Urban space* (Academy Editions ed.). Rizzoli.
- Lang, J. (1994). *Urban design: The American experience*. Van Nostrand Reinhold.
- Gehl, J. (2010). *Cities for People*. Princeton University Press. <https://doi.org/10.2307/jj.41003893>
- Gehl, J. (2011). *Life between buildings* (6th ed.). Island Press.
- Lang, J. (2005). *Urban design: A typology of procedures and products*. Architectural Press.
- Moughtin, C., Cuesta, R., Sarris, C., & Signoretta, P. (2006). *Urban design: Methods and techniques* (2nd ed.). Architectural Press.

MUD1104 – Urban Ecology and Site Planning	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	1
	Practical/Studio/Workshop Periods per Week	2
	Total Periods per Week	3

Objective:

To develop skills that enables an urban designer to deal with ecology and biodiversity and large sites in a comprehensive manner from ecological considerations to the design of services and related infrastructure.

Content:**Unit – I Introduction to ecology & site planning 12**

Importance of Ecology and Biodiversity in city design. Introduction to site and context. Site planning as 'process' and 'theory' – Objectives of site planning

Unit – II Site Reconnaissance 9

Site reconnaissance - Surveys and overlays & Ecological factors in site evaluation - processes, theories and approaches

Unit – III Site Resource Systems 9

Site resource systems; Physiography, Geology and soils, Hydrology, Micro-climate, Vegetation, Wild life, terrestrial and aquatic.

Unit – IV Cultural Resource Systems 6

Cultural resources, Geographical settings and siting.

Unit – V Aspects of Site Planning 9

Urban vegetation, planning & maintenance, Road layout and parking, Site grading and drainage, Sewerage, water supply and electricity

Total: 45 Periods

Learning Outcome:

Students will be enabled to deal with varying site-based natural and ecological systems with reference to urban design projects and the city at large.

References:

- Jellicoe, G., & Jellicoe, S. (1975). *The landscape of man: Shaping the environment from prehistory to the present day*. Viking Press.
- Lynch, K. (1981). *Good city form*. MIT Press.
- Lynch, K., & Hack, G. (1984). *Site planning* (3rd ed.). MIT Press.
- McHarg, I. L. (1969). *Design with nature*. Natural History Press.
- Jacobs, P., & Way, D. (1969). *Visual analysis of landscape development*. Harvard University Graduate School of Design.
- Robinette, G. O. (Ed.). (1977). *Landscape planning for energy conservation*. Environmental Design Press.
- Singh, R. Y. (1994). *Geography of settlements*. Rawat Publications.

MUD1105 – Geoinformatics for Urban Design	Subject Category	IA
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

To develop an understanding of the land and its designed modifications, with an integration of Earth sciences. To develop understanding and capacity building to use information science in Urban Studies to address various problems of geography, cartography, geosciences and related branches of science and engineering in urban design.

Content:**Unit – I Basics of Remote Sensing, Photography and Photogrammetry****6**

Concept and Foundation of Remote Sensing, Elements of Photographic System, Types of Aerial Photographs: Vertical Photographs, Oblique Photographs, Satellite Imagery. Introduction to Air Photo Interpretation, Basics of Photogrammetry for Map Making: Definition and Principles, Geometric Elements of a Vertical Photograph, Relief Displacement, Ground Control for Aerial Photography.

Unit – II Mapping Processes and Applications**9**

Digital Image Processing, Applications: Geologic & Soil mapping, Land-use/land cover Mapping, Land use Classification, Agriculture Applications, Forestry Applications, Water resource Applications: Water Pollution Detection, Flood Damage Estimation, Urban & Regional Planning Applications, Wetland mapping.

Unit – III Geographical Information Systems (GIS)**9**

Definition and components of GIS: Hardware, Software, Data Input, Storage, Output, and Database Structures. Types of Spatial Data: Vector (point, line, polygon) and Raster (grid-based). Coordinate Systems: Geographic Coordinate System (GCS) and Projected Coordinate System (PCS). Data Processing: Georeferencing, digitization using KML files, and spatial data preparation. Open Source GIS platforms (e.g., QGIS) and their applications. Attribute Data: Importance of attribute tables, features, and basic spatial analysis.

Unit – IV GIS Tools and Geoprocessing Applications**9**

Introduction to ArcGIS/QGIS interface: navigation, selection, editing, and layer management tools. Data management functions including projection, coordinate transformation, and data conversion. Geoprocessing tools: Buffer, Clip, Merge, Union, Intersect, Dissolve, Spatial Join, and overlay analysis. Application of proximity, network, and suitability analysis in urban planning. Raster and terrain analysis: Raster calculator, reclassification, DEM/DTM, slope, aspect, and hills hatched. Output and visualization: thematic mapping, symbology, map layout, and export functions. Open-source GIS tools and processing toolbox for spatial analysis.

Unit – V Spatial Analysis, Indices and Map Composition**12**

Presentations / Workshop Application of GIS & Remote Sensing, Automated Mapping / Facility Management. (AM/FM), 3-D GIS Digital Elevation Model & Digital Terrain Model, Digital Image Processing and Editing; Error Detection and Correction, Geo Spatial Analysis: Turning Data into Meaningful information. Comparison of Vector & Raster Methods, Internal G.I.S., Network Analysis, Open GIS

Total: 45 Periods**Learning Outcome:**

Understand basics of geoinformatics, data acquisition, processes and interpretation. Students shall learn GIS software package over different exercise to understand all the themes discussed in the syllabus.

References:

- Bolstad, P. (2019). *GIS fundamentals: A first text on geographic information systems* (6th ed.). XanEdu Publishing.
- Campbell, J. B., & Wynne, R. H. (2019). *Introduction to remote sensing* (6th ed.). Guilford Press.
- Cromley, E. K., & McLafferty, S. L. (2019). *GIS and public health* (3rd ed.). Guilford Press.
- de Smith, M. J., Goodchild, M. F., & Longley, P. A. (2020). *Geospatial analysis: A comprehensive guide* (6th ed.). Troubador Publishing.
- Environmental Systems Research Institute (ESRI). (2024). *ArcGIS Pro documentation*. [ArcGIS Official Website](#)
- Graser, A., & Olaya, V. (2018). *Learning QGIS* (3rd ed.). Packt Publishing.
- Grekousis, G. (2020). *Spatial analysis methods and practice: Describe–explore–explain through GIS*. Cambridge University Press.
- Halegoua, G. R. (2020). *Smart cities*. MIT Press.
- Indian Space Research Organisation (ISRO). (2023). *Remote sensing applications and national geoportal resources*. [ISRO Bhuvan Geoportal](#)
- Jensen, J. R. (2016). *Introductory digital image processing: A remote sensing perspective* (4th ed.). Pearson.
- Lillesand, T. M., Kiefer, R. W., & Chipman, J. W. (2015). *Remote sensing and image interpretation* (7th ed.). Wiley.
- Longley, P. A., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2021). *Geographic information science and systems* (5th ed.). Wiley.
- Lu, Y., & Weng, Q. (2021). *Geospatial technologies for urban health*. Springer.
- Ministry of Housing and Urban Affairs (MoHUA). (2021). *GIS-based master planning guidelines for AMRUT and Smart Cities Mission*. Government of India.
- National Remote Sensing Centre (NRSC). (2022). *Remote sensing and GIS applications for urban planning*. Hyderabad: NRSC/ISRO. [NRSC Official Website](#)
- Price, M. (2023). *Mastering ArcGIS Pro* (4th ed.). McGraw-Hill Education.
- QGIS Development Team. (2024). *QGIS Geographic Information System*. Open Source Geospatial Foundation. [QGIS Official Website](#)
- Rashed, T., & Jürgens, C. (2016). *Remote sensing of urban and suburban areas*. Springer.
- Singleton, A., Arribas-Bel, D., & Lynch, J. (2021). *Urban analytics*. Sage Publications.

MUD1106 – Humanizing Cities	Subject Category	IA
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

To develop skills that enables an urban designer to understand the various static and kinetic dimensions in which people engages with the city.

Content:**Unit – I City and its contestations 9**

City as a contested Place-Concept of Space and Place: City as a human network. Public private sector interests: Public Space as a contested domain. Minority groups and poverty

Unit – II City and its Agendas 9

Child in the city. Gender and the City. New technologies and the City. Communicating the hidden agenda and the city

Unit – III City and its communities 9

Community participation, advocacy planning; A new professional role. Pedestrian infrastructure and pedestrianization.

Unit – IV Universal Design 9

Designing public spaces for differently abled. Accessibility, Signage, Lighting, Parking

Unit – V Non-motorized transport infrastructure 9

Cycles and related infrastructure. Non-motorized Facility Management and Maintenance. Pedestrian oriented land use and building design

Total: 45 Periods

Learning Outcome:

Students will be enabled to understand demand of people and how to translate them into taking suitable design decision for the city.

References:

- Alison, J., & Barbican Art Gallery. (2006). *Future city: Experiment and utopia in architecture*. Thames & Hudson.
- Cooper, R., Evans, G., & Boyko, C. (2009). *Designing sustainable cities*. Wiley-Blackwell.
- Crawford, J. H. (2000). *Carfree cities*. International Books.
- Haughton, G., & Hunter, C. (2003). *Sustainable cities*. Routledge.
- Kunstler, J. H. (2001). *The city in mind: Notes on the urban condition*. Touchstone Books.
- Morgan, R. K. (1998). *Environmental impact assessment: A methodological approach*. Kluwer Academic Publishers.
- Rogers, R. (1997). *Cities for a small planet*. Westview Press.
- Safdie, M. (1997). *The city after the automobile: An architect's vision*. Westview Press.
- United Nations Human Settlements Programme. (2020). *World cities report 2020: The value of sustainable urbanization*. UN-Habitat. (Note: Framed under its formal global report title for proper cataloging).
- Welter, V. M. (2002). *Biopolis: Patrick Geddes and the city of life*. MIT Press.
- Gehl, J. (2010). *Cities for People*. Princeton University Press. <https://doi.org/10.2307/jj.41003893>
- Gehl, J. (2011). *Life between buildings* (6th ed.). Island Press.

MUD1107 - Imagining Cities I-Cities in Literature, Visual Arts & Performing Arts.	Subject Category	IA
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

The objective of the course is to explore the representation of city narratives through diverse literary forms – prose, poetry, script, etc. from selected writings across the world, including Indian/Asian works.

Content:**UNIT I Cities in Literature- Contemporary definition of city & Semiotics: 9**

The comparative analyse and contrast between terms like Metropolis and Post- colonial city, Agency and Colonialism, Punjabi Baroque and modernism, Hybridity and Diversity, Mimicry and orientalism, Urban design as creative Expression, Hasan Fathy and critical regionalism, idea of development.

UNIT II City through Semiotics 9

Meaning of semiotics using diagrams by Saus Sure and pierce. Icon, Index and Symbol. City from a semiotic perspective, semiotics of national pavilion.

UNIT III Cities in articles- Global and Indian: 9

Understanding how the expression of cities is changing in articles published by urbanists, architects, designers and planners. Examples are Taffe model in colonies, Delhi durbar and spectacle, Junkspace by Rem Koolhaas, Memoir and the city, Planning mentality, Splintering Urbanism etc, global norms in urban forms in the age of tourism. Critique on representation of British dealings with India, Analysis and critique of articles published on India city example by Rahul Mehrotra, KT Ravindran etc.

UNIT IV Art theories, art movement, public art festivals and urbanism: 9

Definition of art theories by critics and philosophers where subject of the art work is Urbanism; “way of seeing” by John Berger. Art movement depicting the character about the city and their impact on the context, like Cubism, Dadaism, Arte Povera, Land art, Surrealism etc. Initiatives, challenges and outcome of a public art festival from the perspective of an urban designers. Example Kochi Biennale, Documents and 48 degree Celsius.

UNIT V Role of photography & aesthetics in urbanism: 9

Photography as “a social rite, a defence against anxiety and a tool of power”. Photography as national desire and how it has changed in the age of digital media.’ Susan Sontag perspective on photography and the world. Concepts of aesthetics and how it continue to impact social life and urbanism e.g. Walter Benjamin’s concept of “phantasmagoria”.

Total: 45 Periods**Learning Outcome:**

Students are exposed to a wide range of imaginaries and representations of the city through selected readings and discussions and through different media. This exposure forms the foundation of critical appraisal of urban patterns and city formations and leads to a deeper understanding of the city as context.

- References:**

- AlSayyad, N. (Ed.). (2001). *Consuming tradition, manufacturing heritage: Global norms in urban forms in the age of tourism*. Routledge.
- Bacon, E. N. (1974). *Design of cities*. Thames & Hudson.
- Boyer, M. C. (1983). *Dreaming the rational city: The myth of American city planning*. MIT Press.

- Caldeira, T. P. R. (1996). Fortified enclaves: The new urban segregation. *Public Culture*, 8(2), 303–328.
- Foucault, M. (1984). Of other spaces: Utopias and heterotopias. *Architecture /Mouvement/ Continuité*, 5, 46–49.
- Giedion, S. (1941). *Space, time and architecture: The growth of a new tradition*. Harvard University Press.
- Graham, S., & Marvin, S. (2001). *Splintering urbanism: Networked infrastructures, technological mobilities and the urban condition*. Routledge.
- Hall, P. (1980). *Great planning disasters*. University of California Press.
- Hall, P. (1996). *Cities of tomorrow: An intellectual history of urban planning and design in the twentieth century* (Rev. ed.). Blackwell.
- Harvey, D. (1989). *The condition of postmodernity: An enquiry into the origins of cultural change*. Blackwell.
- Hayden, D. (1995). *The power of place: Urban landscapes as public history*. MIT Press.
- Jacobs, J. (1961). *The death and life of great American cities*. Vintage Books.
- Jacobs, J. (1969). *The economy of cities*. Vintage Books.
- Kostof, S. (1992). *The city assembled: The elements of urban form through history*. Bulfinch Press.
- Krier, R. (1979). *Urban form and space*. Academy Editions.
- Lang, J. (1994). *Urban design: The American experience*. Van Nostrand Reinhold.
- Lang, J. (2005). *Urban design: A typology of procedures and products*. Architectural Press.
- Lynch, K. (1960). *The image of the city*. MIT Press.
- Lynch, K. (1984). *Good city form*. MIT Press.
- Ravindran, K. T. (n.d.). *Why planning failed*.
- Robinson, W. I. (2009). Saskia Sassen and the sociology of globalization: A critical appraisal. *Sociological Analysis*, 3(1), 5–29.
- Ross, E. (n.d.). *Can the subaltern speak?*
- Sassen, S. (1996). Whose city is it? Globalization and the formation of new claims. *Public Culture*, 8(2), 205–223.
- Sassen, S. (n.d.). *Valorisation & devalorization*.
- Say. (n.d.). *Between wonder, intuition and suggestions: Rasa in Ray*.
- Singh, K. (1990). The builder. In *Delhi: A novel*. Penguin Books.

MUD1108 – Communication in Urban Design	Subject Category	IA
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

To develop skills that can critically reflect upon and re-present the semester's work of the MUD Program in a creative, compelling format which can contribute to the urban design culture.

Content:**Unit – I Techniques of communication in design****6**

Introduction to different ways and effective techniques used for graphic, written and verbal communication in different stages and aspects in the field of urban design. Learning the aesthetic, technical and conceptual techniques which are essential for the creative outcome, enabling students with skills and tools to solve complex problems in various fields of urban design.

Unit – II Tools and software**6**

Experimenting with various media which can be further enriched with experimental learning. Application of software's like Photoshop, CorelDraw, Illustrator, movie maker can be part of the course.

Unit - III 2D and 3D Representation of cities**12**

Graphical Communication in 2D-Representation of Cities through Nolli's plan and other iconographic means. Map making through the ages, evolution of city representation. Graphical Communication in 3D- Latest techniques of physical model making, 3D printing, 3D Representation techniques in virtual mode

Unit – IV Literary & Artistic representation of cities**12**

Introduction of articles, poems, prose, stories, visual and performing arts, short movies, digital illustration can be introduced. Thematic representation of Cities in Literature and Cities in Cinema.

Unit – V Written and Verbal Communication**9**

Verbal Communication- through Extempore and debates. Written Skills- Writing articles about issues in the cities or cities in general. Write persuasive arguments probably stemming out of the Studio exercise, well-structured text and express critical standpoints.

Total: 45 Periods**Learning Outcome:**

Students shall learn about various communication techniques to express their ideas in urban design.

References:

- Evergreen, S. D. H. (2019). *Effective data visualization: The right chart for the right data*. Sage Publications.
- Punch, K. F. (2013). *Introduction to social research: Quantitative and qualitative approaches* (3rd ed.). Sage Publications.
- Beebe, S. A., Beebe, S. J., & Redmond, M. V. (2011). *Interpersonal communication: Relating to others* (6th ed.). Pearson.
- Hariharan, S., Sundararajan, N., & Shanmugapriya, S. P. (2010). *Soft skills*. MJP Publishers.
- Alex, K. (2010). *Soft skills: Know yourself and know the world*. S. Chand Publishing.
- Gopalaswamy, R., & Mahadevan, R. (2010). *The ACE of soft skills: Attitude, communication and etiquette for success*. Pearson Education.
- West, R., & Turner, L. H. (2010). *Understanding interpersonal communication: Making choices in changing times* (2nd ed.). Cengage Learning.

MUD1109 – Urban Conservation	Subject Category	IA
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

To develop skills and better understanding of environment and heritage of cities across world

Content:**Unit – I Notion of Heritage 6**

Understanding the notion of Heritage – tangible and intangible aspects of heritage in urban areas and an overview of urban renewal and its linkages to conservation

Unit – II Urban Conservation in India 9

Conservation and Development – Trajectory of Urban conservation in India. Urban Conservation principles, UNESCO Recommendations, International and national charters and legislations.

Unit – III Strategies for urban conservation 12

Conservation led regeneration and regeneration strategies of inner city areas. Government schemes and policy for urban conservation

Unit – IV Cultural resources in the city 9

City as living cultural resource. Use of heritage resources for sustainable urban development through policy directives, capacity building, exchange programmes and technical assistance.

Unit - V Challenges in urban conservation 9

Current implementation and management challenges in urban conservation. Scarcity of knowledge in planning and management of heritage resources in the urban context. Present context in Heritage

Total: 45 Periods

Learning Outcome:

Students finishing this course will be able to understand the Urban Heritage, Conservation and related management of the cities.

References:

1. Feilden, B. M. (1982). Conservation of historic buildings. Butterworth Co.
2. Feilden, B. M. (1989). Guidelines for conservation: A technical manual. Indian National Trust for Art and Cultural Heritage.
3. Glendinning, M. (2013). The conservation movement: A history of architectural preservation. Routledge.
4. Hollis, M. (2000). Surveying buildings. RICS Business Services Limited.
5. Indian National Trust for Art and Cultural Heritage. (1999). Conserving the heritage of our historic cities: Pre-seminar working document.
6. Menon, A. G. K. (Ed.). (1994). Conservation of immovable sites. Indian National Trust for Art and Cultural Heritage. (Note: Standard publication year added for this collection).
7. Oxley, R. (2003). Survey and repair of traditional buildings. Donhead Publishers.
8. Tandon, R. (2002). A case for national policy for heritage conservation & management. Indian National Trust for Art and Cultural Heritage.

SECOND SEMESTER

MUD1201 – Planning techniques for Urban Design	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

Students will acquire knowledge regarding methods and techniques used in the process of planning. They shall also learn more about the various survey methods in planning.

Content:**Unit – I Introduction to Planning 6**

Planning principles, terms and their definitions

Unit – II City classification 6

Classification of cities; city region; spheres of influence, urban rural fringe; internal structure of urban areas; density patterns; land use classification and Form based codes

Unit – III Basics of socio-economic surveys 12

Conceptual understanding of socio-economic surveys: data requirements for urban and regional planning; sources of primary and secondary data; questionnaire design, measurement scale and their application; sampling techniques; types of socio-economic surveys.

Unit – IV Survey Techniques 9

Overview of techniques of conducting surveys for land use, building use, density, structural condition of buildings, heights of building, land utilization and physical features of land

Unit – V Policies and Norms for planning in India 12

Planning norms in Indian cities, Formulation of spatial standards for residential, industrial, commercial and recreational areas; space standards for facility areas, utilities and networks; population, distance criteria; performance standards; case studies: residential and non-residential density patterns and analysis

Total: 45 Periods

Learning Outcome:

Students shall be equipped with knowledge of Urban Planning principles, techniques, theories and methods.

References:

- Department of the Environment, Transport and the Regions, & Commission for Architecture and the Built Environment. (2000). *By design: Urban design in the planning system: Towards better practice*. Thomas Telford.
- Institute of Town Planners, India. (n.d.). *Planning techniques* (Reader volume). ITPI.
- Kothari, C. R. (1986). *Research methodology: Methods and techniques*. Wiley Eastern.
- Krueckeberg, D. A., & Silvers, A. L. (1974). *Urban planning analysis: Methods and models*. John Wiley & Sons.
- Lee, D. B., Jr. (1968). *Models and techniques for urban planning*. Cornell Aeronautical Laboratory.
- Ministry of Urban Development. (1996). *Urban Development Plans Formulation and Implementation (UDPI) guidelines*. Government of India.
- Roberts, M. (1974). *An introduction to town planning techniques*. Hutchinson.
- Souther, J. W. (1959). *Technical report writing*. John Wiley & Sons.

MUD1202 – Urban Mobility	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

The aim of this course is to expose the student to urban mobility networks and how the movement corridors directly influence the urban design different classes of cities in India. At the same time a more nuanced understanding of issues related with urban mobility especially related to public transport, pedestrian spaces and emerging trends are to be provided in this course.

Content:**UNIT-I Urban Mobility Systems****9**

Introduction to Urban Mobility – Importance and role of transport in urban design, Accessibility vs. Mobility, Urban Transport and Types of Urban Mobility Systems. Evolution of mobility systems in Indian cities. Introduction to mobility data, travel behaviour, and multimodal integration.

UNIT-II Sustainable Urban Mobility**9**

Land Use and Transport Integration, Sustainable Planning and Design for Mobility, Urban Form and Movement Networks, Road Safety Principles and Safe Street Design, Environmental and Social Sustainability in Transport, Sustainable Urban Mobility Plan (SUMP), Complete Streets and Street Design Guidelines, Climate-responsive and low-carbon mobility approaches.

UNIT-III Transport Modes in cities**6**

Transport Modes in Cities – Pedestrian systems, Non-Motorized Vehicles (NMV), Intermediate Public Transport (IPT), Public Transport systems including BRT, MRTS, Metro Rail, LRT, and Suburban Rail. Emerging mobility systems such as electric mobility, shared mobility, and micro-mobility. Issues of public vs. private modes of travel.

UNIT-IV Transit Design and Smart Mobility**9**

Design for Transit – Transit Oriented Development (TOD), Last Mile Connectivity, Walkability and Pedestrian Environments, Universal Accessibility and Inclusive Mobility. Road Safety Audits and Traffic Calming Measures Mobility systems and ICT interfaces – Smart Transportation, Intelligent Transport Systems (ITS), Mobility-as-a-Service (MaaS), smart parking, and real-time transit information systems.

UNIT-V Case-Studies and design tool applications**12**

Case studies of successful mobility systems implemented in Indian and international cities. Accessibility in the context of universal design. Design tools and methods that support inclusive urban mobility. Application of Geoinformatics, GPS-based mobility mapping, space syntax, network analysis, and mobility data visualization in transport planning and urban design.

Total: 45 Periods**Learning Outcome:**

Students shall develop a critical understanding of urban mobility systems and their role in achieving livable, inclusive, and sustainable cities. The course will enable students to analyze movement networks, evaluate transport systems, and apply contemporary mobility planning tools and technologies in urban design practice.

References:

- Indian Roads Congress. (n.d.). *Guidelines for design of urban roads, pedestrian facilities, and complete streets* (Relevant IRC Codes).
- Institute for Transportation and Development Policy. (2022). *Complete streets and TOD standards*.

- Jain, A. K. (2017). *Urban transport: Planning and management*. APH Publishing.
- Kadiyali, L. R. (2017). *Traffic engineering and transport planning*. Khanna Publishers.
- Meyer, M., & Miller, E. (2019). *Urban transportation planning* (3rd ed.). McGraw-Hill.
- Ministry of Housing and Urban Affairs. (2016). *Transit oriented development guidance document*. Government of India.
- Ministry of Housing and Urban Affairs. (2023). *Complete streets toolkit*. Government of India.
- Ministry of Urban Development. (2006). *National urban transport policy*. Government of India.
- Ministry of Urban Development. (n.d.). *Comprehensive mobility plans of case cities*. Government of India.
- Sadik-Khan, J., & Solomonow, S. (2016). *Streetfight: Handbook for an urban revolution*. Viking.

MUD1203 – Urban Design Studio-II (Greenfield Design)	Subject Category	SC
	Number of Credits	12
	Lecture Periods per Week	2
	Practical/Studio/Workshop Periods per Week	10
	Total Periods per Week	12

Objective:

The studio builds upon analytical and theoretical foundation acquired from the first semester in resolving a design problem on a large Green Field site preferably outside an existing city, exploring concepts such as compact urbanism, mixed-use walkable neighborhoods, Transit oriented development and Climate resilient Urban Design.

Content:

The studio emphasis is on planning and design of a sustainable, resilient, inclusive and implementable urban development for emerging urban areas. The first part of the studio will be an introduction to city level studies, analysing the various factors that determine the morphology of the city and evolving building typologies. As far as practicable, the project should be a live problem carried out with the active participation of the development authorities and stake holders engaging students to analyse peri-urban growth dynamics, land-use distribution, city expansion, mobility systems and environmental systems. While undertaking green field interventions, greater emphasis would be laid on watershed patterns, flood plains, green corridors, ecological reserves, drainage networks and agricultural remnants to generate the urban form.

Total: 180 Periods

Learning Outcome:

Students shall learn Climate responsive thinking and implementation-oriented approaches for large scale Urban design interventions for green-field areas and future city development, while understanding city dynamics.

References:

- Bacon, E. N. (1974). Design of cities. Thames & Hudson.
- Hall, P. (1996). Cities of tomorrow: An intellectual history of urban planning and design in the twentieth century (Rev. ed.). Blackwell.
- Jacobs, J. (1961). The death and life of great American cities. Vintage Books.
- Kostof, S. (1992). The city assembled: The elements of urban form through history. Bulfinch Press.
- Krier, R. (1979). Urban form and space. Academy Editions.
- Lang, J. (1994). Urban design: The American experience. Van Nostrand Reinhold.
- Lang, J. (2005). Urban design: A typology of procedures and products. Architectural Press.
- Lynch, K. (1960). The image of the city. MIT Press.
- Lynch, K. (1972). What time is this place? MIT Press.
- Lynch, K. (1984). Good city form. MIT Press.
- Marshall, S. (2009). Cities design and evolution. Routledge.
- Moughtin, C., Cuesta, R., Sarris, C., & Signoretta, P. (2006). Urban design: Methods and techniques (2nd ed.). Architectural Press.
- Mumford, L. (1972). The city in history: Its origins, its transformations, and its prospects. Harcourt Brace Jovanovich.
- Rogers, R. (1998). Cities for a small planet. Icon Editions.
- Rossi, A. (1982). The architecture of the city (D. Ghirardo & J. Ockman, Trans.). MIT Press. (Note: Originally published in Italian in 1966).
- Spreiregen, P. D. (1965). Urban design: The architecture of towns and cities. McGraw-Hill.

MUD1204 – Urban Design Research Lab	Subject Category	JC
	Number of Credits	4
	Lecture Periods per Week	2
	Seminar/Practical/Workshop Periods per Week	2
	Total Periods per Week	4

Objective:

The objective of urban form laboratories is to allow free experimentation and in-depth inquiry into the patterns and processes of urbanism as well as connected production of urban form and space. These laboratories are to provide platforms for inter/multi-disciplinary engagement of participants from varying backgrounds towards engaging with selected aspects of built environment conditions and/or project future scenarios of urban form.

The laboratories will conduct short or long duration design experiments/research programs that will be offered to students.

Content:

- The research topic/areas shall have direct linkage with the studio program.
- The lab is also aimed to provide research platforms for inter/multi-disciplinary engagement of participants from varying backgrounds towards engaging with selected aspects of built environment conditions and/or project future scenarios of urban form.
- The Lab will extend possibilities of self-driven explorations on urban form as also collective pursuits of design and allied explorations.
- The expected outcome might be in form of research publications on the explorations.

Total: 60 Periods

Learning Outcome:

Students will be enabled to explore the aspects related to urban form and space within urban environments

References:

- Batty, M. (2001). Exploring isovist fields: Space and shape in architectural and urban morphology. *Environment and Planning B: Planning and Design*, 28(1), 123–150.
- Becker, L. M. (2015). *Writing successful reports and dissertations*. SAGE.
- Gaur, A. S., & Gaur, S. (2011). *Statistical methods for practice and research: A guide to data analysis using SPSS* (2nd ed.). Response Books.
- Hillier, B., & Hanson, J. (1984). *The social logic of space*. Cambridge University Press.

MUD1205 – Liveable Cities	Subject Category	IA
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

To broaden the knowledge about ecological and liveability aspects of a city for devising a sustainable future.

Content:**Unit – I Eco-city and its qualities****9**

Introduction to eco-city, economic, social, and environmental qualities of an eco-city, carbon-neutral and renewable energy production, Public transportation systems, Resource conservation (water and energy), waste management and its reuse.

Unit – II Sustainable city factors**9**

Urban Farming, Urban Infill, Walkable Urbanism, Obstacles, Social factors of Sustainable Cities, discussion on international and national eco cities.

Unit – III Sustainable Communities**9**

Sustainable communities: Basic principles and strategies, systems thinking and strategies; race, class, and equity; place-based learning and planning; and social capital and community empowerment.

Unit – IV Healthy Community Systems**9**

Urban Eco-Design, Integrating Nature and Urban life, Building healthy Community Systems, Transforming Community Systems.

Unit – V Sustainable city development**9**

Sustainable city development: Sustainable Development Goals, Liveability, participatory planning, land use, poverty and racism, green economy, local food systems, nature in the city, healthy neighbourhoods, transportation/access, housing, energy systems, bio diversity etc., Green Urbanism, Learning from Existing Cities. Liveability indices, ranking of cities.

Total: 45 Periods**Learning Outcome:**

Students will be able to comprehend their understanding of ecological qualities of a city in the perspective of co-existing with the demands for sustainable future.

References:

- Bacon, E. N. (1976). Design of cities (Rev. ed.). Penguin Books.
- Berke, P. R. (2002). Does sustainable development offer a new direction for planning? Challenges for the twenty-first century. *Journal of Planning Literature*, 17(1), 21–36.
- Blewitt, J. (2014). Understanding sustainable development (2nd ed.). Routledge.
- Dobbins, M. (2009). Urban design and people. John Wiley & Sons.
- Hempel, L. C. (1999). Conceptual and analytical challenges in building sustainable communities. In D. A. Mazmanian & M. E. Kraft (Eds.), *Toward sustainable communities: Transition and transformations in environmental policy* (pp. 43–74). MIT Press.
- Marshall, S. (2009). Cities design and evolution. Routledge.
- Newman, P., & Thornley, A. (2005). Planning world cities. Palgrave Macmillan.
- Kates, R. W., Parris, T. M., & Leiserowitz, A. A. (2005). What is sustainable development? Goals, indicators, values, and practice. *Environment: Science and Policy for Sustainable Development*, 47(3), 8–21. (Note: Corrected "Robert, KW" to the standard academic citation of Kates, R. W.).
- World Bank. (2010a). Cities and climate change: An urgent agenda.
- World Bank. (2010b). Eco2 cities: Ecological cities as economic cities.

MUD1206 – Imagining Cities II – Cities in Digital Media	Subject Category	IA
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

The objective of the course is to explore and discuss city imagery through various media. Students are exposed to a wide range of imaginaries and representations of the city through different media.

Content:**Unit – I City as theatre****12**

Theatre as a total work of art, City as Durbar: Theatre and power in Imperial Delhi, concept of relief stage, street theatre, stage craft. Small town imaginaries with example of 'Superman of Malegaon', the cinema of Satyajit Ray (Apu trilogy) and the discussion of 'Chamatkar' in the context of Urban spaces.

Unit – II Concept of utopia, Dystopia and heterotopia**12**

Examples from movies Brazil & Blade runner to emphasis on concept of memory, technology and bureaucracy, 'Quatsi trilogy' and globalization. Six principles by Foucault's "of other spaces". Contemporary examples as productive urban imaginaries.

Unit – III Machine and metropolis**9**

The Historical Digression, the ultimate technological fantasy in city, Analysis of Andreas Husseyn to discuss the role of technology, male domination and performative role of the vamp, division of labour.

Unit – IV New conditions in Contemporary Urbanism**6**

Salient features of "Still life" and "In the mood for love", essay by Ackbar Abbas describing Chinese Urbanism, Diegetic and Non diegetic, agency, inclusive urbanism and film Noir.

Unit – V Public spaces as expressive spaces**6**

Public spaces as spaces for expression- With examples from public spaces in the French New Wave, 'cleo from 5 to 7' into a female flaneuse.

Total: 45 Periods**Learning Outcome:**

Students are sensitized to a deeper understanding of the city as context.

References:

- Abbas, A. (1997). Hong Kong: Culture and the politics of disappearance. University of Minnesota Press.
- Colebrook, C. (2002). Gilles Deleuze: Perception, time and becoming. In Desire, ideology and simulacra (pp. 42–65). Edinburgh University Press.
- Krier, R. (1979). Urban form and space. Academy Editions.
- Lang, J. (1994). Urban design: The American experience. Van Nostrand Reinhold.
- Lang, J. (2005). Urban design: A typology of procedures and products. Architectural Press.
- Lynch, K. (1960). The image of the city. MIT Press.
- Lynch, K. (1972). What time is this place? MIT Press.
- Lynch, K. (1984). Good city form. MIT Press.
- Marshall, S. (2009). Cities design and evolution. Routledge.

- Mumford, L. (1972). The city in history: Its origins, its transformations, and its prospects. Harcourt Brace Jovanovich.
- Schirmbeck, E. (1987). Idea, form, and architecture: Design principles in contemporary architecture. Van Nostrand Reinhold.
- Spreiregen, P. D. (1965). Urban design: The architecture of towns and cities. McGraw-Hill.
- Vasudevan, R. S. (2014). The exhilaration of dread: Genre, narrative form and film style in contemporary urban action films. City Flicks: Cinema, Urban Worlds and Modernities in India and Beyond, 22, 1–24.

MUD1207 – Open Elective / Inter-Institutional Elective	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

MUD1208 – Environmental Impact Assessment	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective

To introduce students to environmental assessment frameworks and sustainability principles in the context of urban design and planning. The course aims to develop an understanding of the environmental implications of urban development projects, urban ecological systems, environmental regulations, and assessment methodologies that support climate-responsive, inclusive, and sustainable urban environments.

Content:

Unit–I Urban Environment and Sustainability Fundamentals 6

Introduction to urban ecology, environmental systems, and sustainability principles in urban design. Relationship between urbanization and environmental change. Concepts of environmental quality, carrying capacity, resilience, and climate-responsive urbanism. Introduction to Environmental Impact Assessment (EIA) and Sustainability Assessment in urban development.

Unit–II Environmental Assessment Methods in Urban Design 12

Environmental inventory and baseline studies for urban areas. Physical, biological, socio-economic, and cultural environmental assessment. Urban environmental indicators and spatial analysis techniques. EIA methodologies – checklist, matrix, overlay, network, and GIS-based approaches. Public participation, stakeholder engagement, and environmental justice in urban projects.

Unit–III Impact Assessment for Urban Development Projects 9

Environmental impacts of transportation corridors, housing developments, industrial areas, waterfronts, and infrastructure projects. Assessment of urban heat island effects, air pollution, noise pollution, stormwater runoff, and ecological fragmentation. Impact prediction techniques and mitigation measures. Preparation of Environmental Impact Statements (EIS) and environmental management plans.

Unit–IV Environmental Governance, Policies, and Urban Regulations 9

Environmental laws, policies, and institutional frameworks relevant to urban planning and design. Environmental Protection Act, Air Act, Water Act, Noise Pollution Rules, Solid Waste Management Rules, EIA Notification, Coastal Regulation Zone (CRZ), and climate adaptation policies. Environmental auditing, compliance monitoring, and sustainable urban development frameworks.

Unit–V Sustainable Urban Systems and Environmental Planning Tools 9

Integrated urban environmental management systems. Municipal solid waste management, recycling, circular economy approaches, and waste-to-energy systems. Blue-green infrastructure, water-sensitive urban design, and nature-based solutions. Application of GIS, remote sensing, geospatial analysis, and environmental mapping tools in urban design and planning.

Total: 45 Periods

Learning Outcome

Students shall develop an understanding of environmental assessment methods, sustainability principles, and environmental governance frameworks relevant to urban design and planning. The course enables students to critically evaluate environmental impacts of urban projects and propose sustainable and climate-responsive urban design strategies.

References

- Canter, L. W. (2018). Environmental impact assessment. McGraw-Hill Education.
- Central Pollution Control Board. (2021). Guidelines for environmental monitoring and urban waste management. Government of India.
- de Smith, M. J., Goodchild, M. F., & Longley, P. A. (2020). Geospatial analysis: A comprehensive guide (6th ed.). Troubador Publishing.
- Farr, D. (2018). Sustainable urbanism: Urban design with nature. Wiley.
- Forman, R. T. T. (2014). Urban ecology: Science of cities. Cambridge University Press. (Note: Corrected publication year to 2014 for its primary definitive print edition).
- Glasson, J., Therivel, R., & Chadwick, A. (2024). Introduction to environmental impact assessment (6th ed.). Routledge.
- Jain, R. K., Urban, L. V., Stacey, G. S., & Balbach, H. E. (2016). Environmental planning and impact analysis. CRC Press.
- Ministry of Environment, Forest and Climate Change. (2020). Environmental impact assessment notification and guidelines. Government of India.
- Oke, T. R., Mills, G., Christen, A., & Voogt, J. A. (2017). Urban climates. Cambridge University Press.
- United Nations Environment Programme. (2022). Sustainable cities and global environment outlook reports.

THIRD SEMESTER

MUD2101 – Participatory Planning and Techniques	Subject Category	IA
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

The objective of this course is to sensitize students to the diverse stakeholders, communities and institutional actors involved in shaping urban spaces. It aims to develop an understanding of participatory planning as an essential approach in contemporary urban design, where negotiation, collaboration and community engagement become central to decision-making. The course enables students to understand stakeholder interests, power relations, governance frameworks and participatory methods used in Indian and international contexts. It further equips students with practical tools such as stakeholder mapping, participatory appraisal, focus group discussions, community workshops and design charrettes to translate community inputs into inclusive urban design strategies.

Content:**UNIT-I Foundations of Participatory Planning in Urban Design 9**

- Meaning, scope and relevance of participatory planning in urban design.
- Participation as consultation, collaboration, co-production and empowerment.
- Identification of diverse stakeholders: residents, vendors, children, women, elderly people, workers, informal groups, local businesses, RWAs, NGOs, CBOs, ward officials, elected representatives and parastatal agencies.
- Understanding top-down, bottom-up and negotiated approaches to urban design decision-making.
- Role of participation in shaping inclusive public realms, neighbourhoods, streets, open spaces, housing areas and local area plans.
- Ethical concerns in participation: representation, consent, exclusion, power imbalance, community fatigue, conflict and expectation management..

UNIT-II Stakeholders, Power and Governance in Indian Urban Contexts 9

- Understanding urban stakeholders and their interests, Stakeholder influence-interest matrix.
- Micro-spatial politics: streets, vending, parking, parks, housing societies, gated communities, informal settlements and market areas.
- Participation and urban inequality: class, caste, gender, age, disability, informality and tenure.
- Governance structures affecting participation: municipal corporations, ward committees, area sabhas, RWAs, development authorities and special purpose vehicles.
- 74th Constitutional Amendment and decentralised urban governance.
- Local Area Planning and ward-level participatory processes.
- Participatory dimensions of Indian urban programmes: JnNURM, HRIDAY, Smart Cities Mission, AMRUT and other urban renewal initiatives.
- Role of CBOs, NGOs, SHGs, resident groups, professional bodies and citizen collectives.
- Participation in large infrastructure projects: metro, roads, riverfronts, redevelopment, TOD and urban renewal.

UNIT-III Participatory Methods and Field Techniques 6

- Preparing for community engagement: defining purpose, scale, stakeholder groups, timeline and expected outputs.
- Designing engagement questions: open-ended, spatial, visual and behavioural questions.
- Field-based participatory techniques like Stakeholder interviews, Focus group discussions, Community meetings, Participatory mapping, Transect walks, Social mapping, Resource mapping, Behaviour mapping, Activity mapping, Photo documentation, Public-space audit, Safety audit, Accessibility audit, Child-friendly and gender-sensitive audits, Timeline mapping and problem-tree analysis
- Quantitative and qualitative data in participatory planning.
- Visual tools in participation: maps, models, cards, photographs, icons, ranking exercises and preference surveys.
- Digital participation tools: online surveys, GIS-based mapping, participatory dashboards, mobile apps and hybrid engagement formats.

- Documentation formats: field notes, consent forms, stakeholder registers, issue-opportunity matrices and engagement reports.

UNIT-IV Design Charrettes, Public meetings and Co-design Processes**9**

- What is a design charrette?
- Planning events, public meetings, open houses, community design studios and co-design labs.
- Difference between consultation workshop, visioning workshop, conflict-resolution workshop, public meetings and design charrette.
- Structure of an engagement event: preparation, invitations, venue, seating, facilitation, ice-breaking, mapping exercises, group discussion, prioritisation and feedback.
- How to conduct a comfortable, honest and productive engagement event.
- Facilitation skills: listening, neutrality, managing dominant voices, encouraging silent groups, conflict mediation and time management.
- Tools for co-design: model-making, map annotation, card sorting, priority ranking, visual preference surveys, scenario building and design games.
- Translating community inputs into design brief, spatial principles, urban design guidelines and implementation phasing.
- Communicating back to the community: validation meetings, feedback loops and “you said–we did” formats.
- Participation and tactical urbanism: temporary interventions, pop-up public spaces, street trials, placemaking and demonstration projects.
- Action-based research and community engagement projects

UNIT-V Participatory Planning Applications in Urban Design Practice**12**

- Participation in neighbourhood planning and Local Area Planning.
- Participation in housing and community development.
- Participation in street design, public-space design, mobility planning and place-making.
- Participation in informal settlements, resettlement, urban renewal and heritage areas.
- Child-friendly, gender-sensitive and age-friendly participatory design.
- Participation in environmental planning: water, open spaces, urban greenery, climate resilience and disaster preparedness.
- Comparative case studies from India and abroad.
- Evaluation of participatory processes: inclusiveness, transparency, representativeness, accountability, feasibility and design impact.
- Measuring success: participation indicators, stakeholder satisfaction, spatial outcomes, implementation outcomes and long-term stewardship.
- Preparing a final participatory urban design framework.

Total: 45 Periods**Learning Outcome:**

The course will enable students to understand participation as an essential method for preparing more inclusive, people-centred and context-responsive urban design proposals. By integrating this course with the **Local Area Planning (LAP) Studio** in the same semester, students can directly apply participatory techniques such as stakeholder mapping, community interviews, transect walks, participatory mapping, focus group discussions and design charrettes within their studio site. This integration will help students move beyond physical analysis and policy review to understand lived experiences, local conflicts, user aspirations and everyday spatial practices. The participatory inputs can then be translated into LAP-level proposals, design guidelines, public realm improvements, street strategies, open-space networks and implementation frameworks, making the studio output more grounded, inclusive and socially responsive.

References:

- Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216–224.
- Constitution (Seventy-Fourth Amendment) Act, 1992, Government of India (1993).
- Forester, J. (1999). *The deliberative practitioner: Encouraging participatory planning processes*. MIT Press.
- Healey, P. (1997). *Collaborative planning: Shaping places in fragmented societies*. Macmillan Press.

- Innes, J. E., & Booher, D. E. (2010). Planning with complexity: An introduction to collaborative rationality for public policy. Routledge.
- Institute for Transportation and Development Policy India. (n.d.). Publications on streets, public realm and participatory street design. ITDP India.
- Ministry of Housing and Urban Affairs. (2015a). Atal Mission for Rejuvenation and Urban Transformation (AMRUT) mission guidelines. Government of India.
- Ministry of Housing and Urban Affairs. (2015b). Heritage City Development and Augmentation Yojana (HRIDAY) scheme guidelines. Government of India.
- Ministry of Housing and Urban Affairs. (2015). Smart Cities Mission guidelines. Government of India.
- Ministry of Urban Development. (2014). Urban Regional Development Plans Formulation and Implementation (URDPFI) guidelines. Government of India.
- National Institute of Urban Affairs. (n.d.). Reports on urban governance, citizen participation and city planning. NIUA.
- Society for Participatory Research in Asia. (n.d.). Participatory urban planning. PRIA.
- Sanoff, H. (2000). Community participation methods in design and planning. John Wiley & Sons.
- United Nations Human Settlements Programme. (2001). Building bridges through participatory planning. UN-Habitat.
- Wates, N. (2014). The community planning handbook: How people can shape their cities, towns & villages in any part of the world (2nd ed.). Routledge.

MUD2102 – Urban Design Studio – III (Local Area Planning)	Subject Category	SC
	Number of Credits	12
	Lecture Periods per Week	2
	Practical/Studio/Workshop Periods per Week	10
	Total Periods per Week	12

Objective:

The studio aims to enable students to understand Local Area Planning as a bridge between city-level planning and neighbourhood-level urban design action. It will train students to study a city, identify an appropriate ward or local area, and analyse its physical, social, environmental, economic and governance dimensions. The studio will strengthen students' ability to conduct participatory fieldwork, stakeholder engagement and public meetings as part of the urban design process. It will also help students translate community concerns into spatial strategies, design guidelines, public realm proposals and implementable projects with phasing and indicative cost estimation.

Content:

The Local Area Planning Studio is intended to train students to prepare a human-centric, participatory and implementation-oriented Local Area Plan at the ward/neighbourhood scale. The studio will focus on understanding the relationship between city-level structure and local everyday life, where streets, open spaces, markets, housing areas, mobility systems, community facilities and public infrastructure are studied through both spatial analysis and community experience. Students will engage with stakeholders, conduct public meetings, identify local issues and aspirations, and translate them into urban design strategies. The studio shall culminate in a Local Area Plan framework and a smaller implementable project with preliminary cost estimation.

Total: 180 Periods**Learning Outcome:**

Students will be able to prepare a human-centric Local Area Plan by integrating city-level understanding, ward-level analysis, everyday life mapping and participatory engagement. They will learn to translate community concerns and spatial issues into urban design strategies, detailed proposals and small implementable projects with preliminary cost estimation.

References:

- Carmona, M. (2021). *Public places urban spaces: The dimensions of urban design* (3rd ed.). Routledge.
- Project for Public Spaces. (2000). *How to turn a place around: A handbook for creating successful public spaces*.
- Gehl, J. (2010). *Cities for People*. Princeton University Press. <https://doi.org/10.2307/jj.41003893>
- Gehl, J. (2011). *Life between buildings* (6th ed.). Island Press.
- Sanoff, H. (2000). *Community participation methods in design and planning*. John Wiley & Sons.
- Tibbalds, F. (2001). *Making people-friendly towns: Improving the public environment in towns and cities*. Spon Press.
- Wates, N. (2000). *The community planning handbook: How people can shape their cities, towns and villages*. Earthscan.

MUD2103 – Urban Design Dissertation	Subject Category	JC
	Number of Credits	3
	Lecture Periods per Week	2
	Seminar/Practical/Workshop Periods per Week	1
	Total Periods per Week	3

Objective:

To allow students to explore research areas which are contemporary and can address global as well as local issues, critical analysis and interpretation of urban phenomena and data. It will guide both studio and non-studio based enquiries of students towards structured, systematic and targeted research yielding qualitative and quantitative outputs.

Content:

- The research topic/areas shall have direct linkage with the Thesis.
- The students shall be allowed to have free experimentation and in-depth inquiry into the patterns and processes of urbanism as well as the connected production of urban form and space.
- The lab is also aimed to provide research platforms for inter/multi-disciplinary engagement of participants from varying backgrounds towards engaging with selected aspects of built environment conditions and/or project future scenarios of urban form.
- The expected outcome shall be in the form of research papers/ research projects with active engagement with the research organisations or alike.
- Students shall be encouraged to collaborate with National and international agencies who work on research related with Urban studies like UN-HABITAT, Centre for Policy Research (CPR), India Institute of Human Settlement (IIHS, DUSP(MIT) etc. to see the current trend of research and streamline their work accordingly.

Total: 45 Periods**Learning Outcome:**

Students will appreciate the complexity of urban phenomena and will be better equipped to decode and interpret them. This will in turn help them in developing a more evidence-based design approach.

References:

1. Batty, M. (2001). Exploring isovist fields: Space and shape in architectural and urban morphology. *Environment and Planning B: Planning and Design*, 28(1), 123–150.
2. Becker, L. M. (2015). *Writing successful reports and dissertations*. SAGE.
3. Gaur, A. S., & Gaur, S. (2011). *Statistical methods for practice and research: A guide to data analysis using SPSS* (2nd ed.). Response Books.
4. Hillier, B., & Hanson, J. (1984). *The social logic of space*. Cambridge University Press.
5. McClelland, D. (2003). *Photoshop 7 bible* (Professional ed.). Wiley Publishing.
6. Tal, D. (2009). *Google SketchUp for site design: A guide for modeling site plans, terrain and architecture*. John Wiley & Sons.

MUD2104 – Real Estate Management	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

To understand the gamut of real estate development, particularly in the Indian context and the extent of market driven concerns in urban development process.

Content:**Unit – I Real Estate Scenario in India 6**

Real Estate scenario of India, contribution to GDP, stakeholders and participants. The RERA Act – promulgation, applicability and role of legislation in sustainable Real Estate

Unit – II Real Estate Asset Classes 6

Real Estate Asset Classes – Residential, Commercial, Retail, Hospitality, Education, Logistics and Warehousing, Senior Living, Co-working and Co-living spaces, Cap' values.

Unit – III Real Estate field verticals 12

Real Estate field verticals (end-to-end services): Advisory, Land procurement, Transaction (Sale and Lease, Bid Process management), Capital Markets, Project / Construction Management, Asset / Property Management (Housekeeping and Facilities' management).

Unit – IV Real Estate advisory studies 12

Real Estate advisory studies – Highest and Best Use option, Market demand assessment, Feasibility (market and Financial). Real Estate project proposals – EoI, RFP and Development agreement for entrepreneurial and PPP modes

Unit – V Methods of property valuation 9

Property Valuation – methods of Valuation, reach and relevance to real estate sector and Taxation and Registration – influencing factors, Ready Reckoner Rate/s

Total: 45 Periods

Learning Outcome:

Students will be able to view a built or unbuilt entity in its stake at the city level, beyond being a mere physical identity. Students will also be able to develop a rational perspective while proposing urban interventions and pave ways for sustainable development.

References:

- Banerjee, D. N., & Parks, J. A. (1998). Parks' principles & practice of valuation. Eastern Law House.
- Best practices in property valuation for banks and financial institutions. (2025). BlueRose Publishers.
- Damodaran, A. (2025). Investment valuation: Tools and techniques for valuation of any asset (4th ed., Indian Adaptation). John Wiley & Sons.
- Jain, A. K. (2013). Real estate management: Business process and perspectives. Discovery Publishing House.
- Kakule, M. (2022). Property valuation by income approach. Qurate Books.
- Real estate valuation: Principles & practice. (2021). Notion Press.
- Royal Institution of Chartered Surveyors. (2024). RICS valuation – Global standards.

MUD2105 – Summer Internship/Training	Subject Category	IA
	Number of Credits	2
	Lecture Periods per Week	-
	Tutorial Periods per Week	-
	Total Periods per Week	-

Objective:

To get exposed to the practise of Urban Design/Urban development and engage in participatory development.

Content:

Summer Internship/Training for a period of minimum 8 weeks after second semester to be undertaken by the students and a copy of the 'Internship Certificate' needs to be submitted at the beginning of the Third Semester. Summer Internship at the end of Second Semester (during the summer break) is an opportunity to connect to the practising world, where the students can engage and co-learn with Urban development practitioners/Experts, Development agencies, Urban Designers, Urban local bodies like Municipal Corporations, Research and/or Academic Institutions, Development Authorities, Non-partisan groups, NGO's and alike so as to learn more about the organic or guided city development and social initiatives.

Since the nature of work is varying among these stakeholders of Urban development, Faculty may conduct a Workshop to discuss the wide range of issues emerging in the Urban Design and related practises. Students are expected to prepare a report/presentation and present it during evaluation at the end of the Third Semester.

Learning Outcome:

Students will be able to get exposed to multi-disciplinary issues of varying scales of urban development and also get the opportunity to engage in the process of co-learning.

MUD2106 – Urban Policy and Management	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

This course aims to inform the student about the process of formulation of urban design policies, integration and implementation of the same in city planning, to inform the student about the process of formulation of urban design policies, integration and implementation of the same in city planning.

Content:**UNIT-I Role of urban design in city planning****9**

Role of urban design in city planning; historical overview and case examples of policy; visioning process; urban design plans, policies and developmental strategies.

UNIT-II Conservation & Development**9**

Conservation and Development - Urban conservation in India, Conservation principles, charters and legislations, Conservation led regeneration and regeneration strategies of inner city areas, Overview of urban renewal and conservation

UNIT-III Impact of Development Controls**9**

Case studies of impact of development controls and zoning; analysis of urban design issues; current innovations in development regulations; alternative types of zoning.

UNIT-IV Urban design plan implementation**9**

Implementation of urban design plans, policies and concepts – tools and methods; local-level plans; design guidelines; design review and concept of design review boards. Government project implementation vs private projects implementation methods and strategies

UNIT-V Participatory Design**9**

Role of Government, private parties and other stakeholders; participatory design and implementation methods

Total: 45 Periods**Learning Outcome:**

Students would be exposed to issues related to two important dimensions of cities- Housing and heritage as well as associated legal, policy and management frameworks.

References:

- Barnett, J. (1974). Urban design as public policy. McGraw-Hill.
- Barnett, J. (1982). Introduction to urban design. Harper & Row.
- Bureau of Indian Standards. (2010). National building code of India 2015. (Note: The NBC was undergoing key revisions around this timeframe, formally compiled as NBC 2016).
- Delhi Development Authority. (n.d.). Master plan for Delhi.
- Frug, G. E. (1999). City making: Building communities without building walls. Princeton University Press.
- Hall, T. (2008). Turning a town around: A proactive approach to urban design. Blackwell Publishing.
- Jacobs, A. B. (1980). Making city planning work. American Planning Association.
- Lang, J. (2005). Urban design: A typology of procedures and products. Architectural Press.
- Mumbai Metropolitan Region Development Authority. (n.d.). Regional plan for Mumbai metropolitan region.
- Urban Development Department. (n.d.). Revised master plan for Bengaluru. Government of Karnataka.

MUD 2107 – Open Elective	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

MUD 2108 – Inter Departmental / Inter-Institutional Elective (Online/Physical Mode)	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

FOURTH SEMESTER

MUD2201 – Urban Design Thesis	Subject Category	SC
	Number of Credits	15
	Lecture Periods per Week	2
	Practical/Studio/Workshop Periods per Week	7
	Guidance/Reviews	6
	Total Periods per Week	15

Objective:

As the culmination of academic work, to provide an opportunity to carry out an independent design or research on a topic defined by the student.

Content:

The design thesis is an independent design on a topic defined by the student, leading to the development of a clear design proposal to be supervised by a faculty team and evaluated by an external jury. The tutorial will assist the students to strengthen the theoretical base of the thesis and analyse relevant successful design demonstrations through case studies. The thesis by research is independent research on a topic defined by a student, to be completed in the form of a comprehensive report under the supervision of an advisor and evaluated by an external jury. The tutorial will assist the student in research methodologies, conducting of surveys, identifying case studies etc.

Total: 225 Periods

Learning Outcome:

Students demonstrate cumulative learning of theoretical pursuits and design techniques for chosen areas of enquiry and intervention in urban areas.

MUD2202 – Seminar and Report Writing	Subject Category	JC
	Number of Credits	6
	Lecture Periods per Week	2
	Seminar/Practical/Workshop Periods per Week	4
	Total Periods per Week	6

Objective:

The course will run parallel to the design/research thesis with intent to help students to progressively present their Thesis in the form of seminar and refine technical writing in the form of thesis report.

Content:

- The course will help students to write technically about the various theoretical explorations undertaken in the thesis.
- This thesis report will include the title page, abstract, table of content, list of tables, illustrations, graphs, diagrams, introduction, literature review, methodology, precedents – exemplars – best practice, design: site, analysis, design, exploration, options, conclusions, further studies, bibliography, annexes and appendices.
- Report writing techniques will be part of the learning.
- The above list is just indicative. Students may use different terminology to name the different parts/sections of their research or the general structure may differ from the above mentioned due to the nature of the research.
- Evaluation will be based on Seminars conducted at critical stages of the Thesis

Total: 90 Periods**Learning Outcome:**

Students shall learn to present their Thesis in the form of Seminar at critical stages and also learn report writing skills essential to publish their design and research work.

References:

- Anderson, J., & Poole, M. (1998). Thesis and assignment writing (3rd ed.). John Wiley & Sons.
- Borden, I., & Ruedi Ray, K. (2006). The dissertation: An architecture student's handbook (2nd ed.). Architectural Press.
- Fink, A. (1998). Conducting research literature reviews: From paper to the internet. Sage.
- Murray, R. (2005). Writing for academic journals. Open University Press.

MUD2203 – Open Elective	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

MUD2204 – Project Planning and Finance	Subject Category	TC
	Number of Credits	3
	Lecture Periods per Week	2
	Tutorial Periods per Week	1
	Total Periods per Week	3

Objective:

The objective of the course is to educate the students about the various methodologies, policies and financial frameworks of urban development projects.

Content:**UNIT-I Introduction to Development Planning****9**

Introduction to Development Planning and management; Society, State and Market; Privatization, Liberalization and Decentralization; Equity and Development

UNIT-II Project Planning – Introduction & Methodologies**12**

Introduction to project planning, theories, concepts and management. Overview of the various methodologies of planning. Project formulation, definition, Norms, standards, aspects and methods of project appraisal

UNIT-III Project Management**6**

Concepts of Project management, systems, frameworks and techniques, Implementation strategies, scheduling, activities, progress reviews, corrective actions etc

UNIT-IV Economic feasibility and Project Funding**9**

Economic and financial feasibility concepts and methods: Project funding, estimation, economic feasibility and methods of recovery. Mandatory legal and environmental approvals

UNIT-V Case-studies and special projects**9**

Special projects such as Special economic zones, export processing zones, townships etc. Case studies of successful projects and planning schemes are encouraged to be used as learning models.

Total: 45 Periods**Learning Outcome:**

Students will be equipped with necessary procedures to propose, evaluate and manage urban design projects at various scales including finance options and partnership models for implementation.

References:

- Callahan, M. T., Quackenbush, D. G., Rowings, J. E. (1992). Construction project scheduling. McGraw-Hill.
- Chitkara, K. K. (2019). Construction project management: Planning, scheduling and controlling (7th ed.). McGraw-Hill Education India.
- Cleland, D. I., & Ireland, L. R. (2002). Project management: Strategic design and implementation (4th ed.). McGraw-Hill. (Note: Cleland's standard middle initial is corrected to I).
- Desai, V. (2020). Project management and entrepreneurship. Himalaya Publishing House.
- Fisk, E. R. (1978). Construction project administration. John Wiley & Sons.
- Gray, C. F., & Larson, E. W. (2017). Project management: The managerial process (7th ed.). McGraw-Hill Education.
- Kwaku, A. A. (1997). Construction project administration. Addison-Wesley Longman. (Note: Reconstructed from the obscured text "K Wakye, A.A" at the tail end of the entry).
- Nicholas, J. M., & Steyn, H. (2020). Project management for engineering, business and technology (6th ed.). Routledge.
- Patel, B. (2012). Project management (2nd ed.). Vikas Publishing House.
- Peurifoy, R. L., Schexnayder, C. J., Shapira, A., & Schmitt, R. (2018). Construction planning, equipment, and methods (9th ed.). McGraw-Hill Education.