

**Dr. Babasaheb Ambedkar Technological University,  
Lonere, Raigad**

**Proposed Syllabus for  
Master of Architecture - Urban Design  
- 2021 Pattern**

**Date: 28<sup>th</sup> August 2021**

## **PREAMBLE**

The Academic Council of Dr. Babasaheb Ambedkar Technological University aims at bridging the gap between the Industry and the Institute by framing a syllabus on the Guidelines of Council of Architecture, India and fine tuning the same with respect to the requirements of the building industry at the international and national level.

The students have been made sound enough through the Graduation Program, to proceed to Masters in any part of the World and be suitable enough to support any good Architectural office across the globe or raise his / her professional practice.

The Education at Masters Level is oriented to develop students with modern Skills and Techniques, in specialist field of Architecture i.e. Urban Design, Construction Management, Environmental Architecture and General (aspects in Architecture).

The Education is desired to orient and to equip students with modern skills and techniques of designing structures and detail them further with precise constructional details, use of most suitable materials, examine the sustainability attributes and further specify the process of implementation with the value addition of conservation of energy flavored with modern architectural concepts giving justice to the various spaces in their chosen field of specialization (within and around the built form), they are meant to perform.

The architectural institutes shall also educate the students on their responsibility as a professional, to create designs that shall adhere to all the local regulations and laws of the land and should provide updated knowledge of procedures to be followed from work commencement to completion.

The graduate course (B.Arch) shall be of ten semesters (stage I & stage II) and the detailed subject wise pattern shall be strictly adhered to.

The Masters Course (M. Arch) shall be of 4 semesters and detailed subject wise pattern enclosed along with this preamble shall be strictly adhered. The Universities stipulates that maximum student in each class be 20 only and sections may be added for additional intakes

### **M.Arch (Urban Design):**

It is proposed to offer a regular M. Arch postgraduate course in Urban Design of two-year duration open to students with a B.Arch. qualification. This course is designed to enhance the skills of, young aspiring architects to be involved in the active planning and design of urban settlements which are under rapid transformation in India. This course would prepare a student to work within the planning framework in our context with government institutions, non-governmental institutions and other private agencies.

#### **Objectives of Urban Design Course are as follows:**

- ☐ To prepare the students to develop a holistic view of the city as a basis for designing the city/city components in the third dimension.
- ☐ To contribute to the world-wide knowledge bank on urban design through primary/ secondary research, theoretical pursuits and publications.
- ☐ To contribute to a clearer understanding of cities, particularly of Indian cities, through research, documentation and urban design interventions.
- ☐ To attain a fundamental understanding of the context of the urban.
- ☐ To develop successful strategies for the implementation of the urban design principles.
- ☐ To work successfully with communities, public / private planning institutions and other stakeholders in the city.
- ☐ Through elective subjects, seminars, workshops and short-term courses and through collaborations with related disciplines, to develop research material and training modules for professionals and teachers.
- ☐ Through ensuring feed back into course contents, syllabus and pedagogic methods from all the above methods, to constantly improve the urban design education programme.

<b>List of Abbreviations</b>		
<b>Sr.No.</b>	<b>Acronym</b>	<b>Full form</b>
1	TH	Theory
2	STW	Sessional Work with Assessment
3	SV	Sessional Work with Viva
4	T	Theory Lecture
5	S	Studio
6	CA	Continuous Assessment
7	MSE	Mid Semester Exam
8	ESE	End Semester Exam

### **Teaching Scheme:**

Each Lecture to be conducted should be of 60 min duration. Each Studio to be conducted should be of 60 min duration. 1 Credit Point = 1 Hour Lecture (For Theory subject)

1 Credit Point = 2 Hour Studio

### **Mandatory Passing Criteria:**

All the rules and regulations for Allowed To Keep Terms (ATKT) from Dr. Babasaheb Ambedkar Technological University (DBATU) should apply.

**Each student should publish a Research Paper in recognized National / International Journal during the Second Year of Masters. The research paper should be related to the Dissertation topic selected for Semester 4 of the Second year. The impact factor of the journal should be 1 and above.**

**Final Degree Class / Division and Marks / Percentage / Credits / Grade needs to be given as average score of all 4 Semesters, with Absolute Grading.**

### **Reporting of Submissions by the students and Institutes:**

All students should mandatorily submit the course work to the college, completed in the class at the end of the day through the servers to the college / university. The evaluation of the work done in the class by the student should be done by the teacher on the same day and data to be maintained on the server.

### **Study Tours:**

Study tours can be organized by the institutes to make the student aware of the various aspects of architecture.



## Teaching and learning Process Matrix:

This matrix is to be used by the teachers and students to understand subject in detail.

It will unfold the desired skill sets required along with identification of teaching and learning process approach indicators.

It will also help teachers and students to evolve concepts and module development.

This is a tool recommended to be followed by subject teachers. It will create learning and understanding process of the subject.

Sr. No.	Subject Heads 	Subject -1	Subject -2	Subject-3	Subject -4
	<b>Definitive questions for learning subjects</b>				
					
1	How does learning occur?				
2	What factors influence learning?				
3	What is role of learning?				
4	How does transfer occur?				
5	What type of learning are best explained by theory / drawing?				
6	How is technology used for learning in Architecture?				

Dr. Babasaheb Ambedkar Technological University										
First Year										
Masters in Urban Design										
Semester -1										
Subject Code	Subject	Teaching		Evaluation Scheme						
		Theory/ Workshop	Studio	CA1	CA2	MSE	ESE Theory Paper	ESE SV/ST W	Total	Credit
AR6UD1001	Urban Design Studio - 1	2	6	50	50	0	0	150	250	5
AR6UD1002	Theory & Methods of Urban Design	2	4	20	20	40	60	60	200	4
AR6UD1003	Planning Techniques and Procedures - 1	2	2	15	15	30	60	30	150	3
AR6UD1004	Urban Design History	2	2	15	15	30	60	30	150	3
AR6UD1005	Digital Skills in Urban Design	2	2	30	30	0	0	90	150	3
AR6UD1006	<b>ELECTIVE-1 (Any One of 3)</b>	0	4	20	20	0	0	60	100	2
AR6UD1006 A	Indian Urbanism									
AR6UD1006 B	Comparative Urbanism									
AR6UD1006 C	Contemporary Theories of Urbanism and Architecture									
	<b>Total</b>	<b>10</b>	<b>20</b>	<b>150</b>	<b>150</b>	<b>100</b>	<b>180</b>	<b>420</b>	<b>1000</b>	<b>20</b>

Dr. Babasaheb Ambedkar Technological University										
First Year										
Masters in Urban Design										
Semester -2										
Subject Codes	Subjects	Teaching		Evaluation Scheme						
		Theory/ Workshop	Studio	CA1	CA2	MSE	ESE Theory Paper	ESE SV/ STW	Total	Credit
AR6UD2001	Urban Design Studio - 2	2	6	50	50	0	0	150	250	5
AR6UD2002	Planning Techniques and Procedures - 2	2	4	20	20	40	60	60	200	4
AR6UD2003	Urban Sociology	2	2	15	15	30	60	30	150	3
AR6UD2004	Research Methodology	2	2	15	15	30	60	30	150	3
AR6UD2005	Landscape Design and Urban Ecology	2	2	30	30	0	0	90	150	3
AR6UD2006	<b>ELECTIVE-2 (Any One of 3)</b>	0	4	20	20	0	0	60	100	2
AR6UD2006A	Imagining Cities									
AR6UD2006B	Structure as expression of urban morphology.									
AR6UD2006C	Art and Science of Conservation									
	<b>Total</b>	<b>10</b>	<b>20</b>	<b>150</b>	<b>150</b>	<b>100</b>	<b>180</b>	<b>420</b>	<b>1000</b>	<b>20</b>

Dr. Babasaheb Ambedkar Technological University										
Second Year										
Masters in Urban Design										
Semester -3										
Subject Codes	Subjects	Teaching		Evaluation Scheme						
		Theory/ Workshop	Studio	CA1	CA2	MSE	ESE Theory Paper	ESE SV/ STW	Total	Credit
AR7UD3001	Urban Design Studio - 3	2	6	50	50	0	0	150	250	5
AR7UD3002	Urban Byelaws & Planning Legislation	2	2	15	15	30	60	30	150	3
AR7UD3003	Development Finance	2	2	15	15	30	60	30	150	3
AR7UD3004	Traffic and Transportation	2	2	15	15	30	60	30	150	3
AR7UD3005	Dissertation (Research Paper writing)	2	4	40	40	0	0	120	200	4
	<b>ELECTIVE-3 (Any One of 3)</b>	0	4	20	20	0	0	60	100	2
AR7UD3006A	Planning Theory									
AR7UD3006B	Sustainable urbanism									
AR7UD3006C	Housing policies and procedures									
	<b>Total</b>	<b>10</b>	<b>20</b>	<b>155</b>	<b>155</b>	<b>90</b>	<b>180</b>	<b>420</b>	<b>1000</b>	<b>20</b>



Dr. Babasaheb Ambedkar Technological University										
Second Year										
Masters in Urban Design										
Semester -4										
Subject Codes	Subjects	Teaching		Evaluation Scheme					Total	Credit
		Theory/ Workshop	Studio	CA1	CA2	MSE	ESE Theory Paper	ESE SV/S TW		
AR7UD4001	Dissertation	4	16	100	100	0	0	400	600	12
AR7UD4002	<b>ELECTIVE-4 (Any One of 3)</b>	2	2	30	30	0	0	90	150	3
AR7UD4002 A	Urban Infrastructure									
AR7UD4002 B	Environment Discourses and Political Ecologies									
AR7UD4002 C	Project Management									
AR7UD4003	Professional Training	0	0	0	0	0	0	250	250	5
	<b>Total</b>	<b>6</b>	<b>18</b>	<b>130</b>	<b>130</b>	<b>0</b>	<b>0</b>	<b>740</b>	<b>1000</b>	<b>20</b>

**Note:** Six week training should be done in vacation of third semester and certificate needs to be produced.

Final Degree class/ Division and Marks/ Percentage/ Credit/ Grade needs to be given as average score off all 4 Semester, with Absolute Grading.

Each Student should publish a Research paper in recognized National/International Journal during the second year of Masters. The research paper should be related to the Dissertation topic selected for Semester 4 of the Second year.

The impact factor of the journal should be 1 and above.

## ***SEMESTER - I***

## SEMESTER –I

### URBAN DESIGN STUDIO–1

							Semester- I	
Subject Code- AR6UD1001								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE SV	Total	Credit
02	06	50	50	0	0	150	250	05

#### Course Objective:

The aim of the unit is to encourage, intensive design work on important contemporary urban and development challenges, to develop both practical skills and critical thinking. To create an understanding of the role of various physical, social, economic and infrastructural components and decision-making processes; the contribution of related disciplines associated with the production of the city.

The studio engages with a morphological and image structure survey / analysis of a selected part of a traditional urban area with detailed studies of urban landscape and streetscape.

It should help in the formulation of urban intervention and frame urban design proposals for the area.

The presentation of final proposals would be with three-dimensional models and sketches.

#### Course Outcome:

Students will appreciate, understand, and analyze real site conditions in an urban area, learn survey and documentation techniques, assessing needs and programming for design intervention.

#### Course contents:

The studio will be divided to the following four modules:

- Documentation and presentation techniques of a precinct.
- Documenting the same precinct from infrastructure and urban management standpoint.
- Documenting the same precinct statistically and as a human network, through ownership, use cycles, association value etc.
- Identification of problems and issues. Compiling the documentation as areport.
- Conceptual Design Scheme.

**The design tutorial** will assist the students in acquiring skills of documentation, analysis and presentation of human networks urban design projects and typological studies.

#### The Design Workshop:

The studio needs to have an inbuilt Design workshop/s. This is a seminar course conducted by invited professionals who may demonstrate the design development process of project, funding and management issues.

This is an interactive session in which students will directly interact with the professionals after the presentation. Projects may vary in scale and content and should preferably raise urban level or fundamental design issues.

#### Studio Assignment:

For this subject student will be assessed based on their processes of documentation, methods of analysis and the basic understanding of the urban design process along with the content.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- Comprehensive report of documentation, studies and analysis done by students in groups of four or five each. (Not less than A2 / Half Imperial–size)

- Design portfolio showing design decision process and conceptual design done by students in groups of four or five each. (A1 or max. A0 size / Full imperial size)

**Mode of Examination:**

No Theory Paper

Sessional Work with Viva

## THEORY & METHODS OF URBAN DESIGN

							Semester- I	
Subject Code- AR6UD1002								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	04	20	20	40	60	60	200	04

### Course Objective:

The unit helps in introducing concepts, theories and methods of inquiry that are useful for urban design discourse and reflective practice, aiming at better programming and design. It will explore ways of reading, experiencing, comprehending, analyzing, and representing, the urban context.

It will do so by introducing students to existing modes of reading cities through the perceptual/cognitive theories framed by Kevin Lynch and Christopher Alexander, behavioral theories by Amos Rapoport, psycho-geographical theories by Guy Debord, and other noted theoreticians. It should equip the students to innovate in reading and analyzing urban settlements depending on the urban context they wish to engage.

The course should also help the students to comprehend and appreciate the evolution and formation of morphologies of urban settlements.

### Course Outcome:

Students are exposed to different methodological approaches, technologies and foundation theories of urban design.

### Course Content:

- Concepts of place and space
- Urban design terminologies and definitions
- Methods of urban design surveys, documentation, and representation
- Cognitive mapping – contemporary and traditional
- Space analysis
- Determinants of urban form
- Components of urban structure
- Concepts of layering
- Size, shape, and form of cities
- Typological studies
- Architectural expression

### Assignment:

Assignment/s need to explore various urban design methodologies, their theoretical background, their understanding of urban form & space and their applications.

Minimum Assignment/s submissions towards Sessional Work& Oral Examinations shall include:

- Each student will study urban design methodologies in terms of its background, its conception, its details, its reflection on urban form & space, and its relevance in today's context, etc. (A2/half imperial size report by individual student)
- Assignment to be designed by the tutor to understand its application in an appropriate context. (A2/ half imperial size report by individual student)

**Mode of Examination**

Theory Paper

Sessional Term Work with Assessment

**References:**

1. The Death and Life of Great American Cities (50th Anniversary Edition), Jane Jacobs, Modern Library, 2011
2. The Image of the City, Kevin Lynch, the MIT Press, 1960
3. Townscape ,Gordon Cullen,NewYork –The architectural press,1961
4. Event Cities, Bernard Tschumi, The MIT Press, 2001
5. The Architecture of the City, Aldo Rossi, The MIT Press, 2004
6. Human Aspects of Urban Form, Amos Rapoport
7. “Urban Design: Method and Techniques” by Cliff Moughtin
8. “Urban Design – A typology of procedures and products” by Jon Lang
9. “Image of the City” by Kevin Lynch
10. Movie: “The Social Life of Small Urban Spaces” by William Whyte
11. Document: “Urban Design Toolkit”

## PLANNING TECHNIQUES & PROCEDURES -1

							Semester- I	
Subject Code - AR6UD1003								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	15	15	30	60	30	150	03

### Course Objective:

The course also seeks to investigate into theories of place making and the contribution of technology and economy leading to an understanding of what is “urban” today. It also seeks present planning and institutional framework available in the country, state and with local governments, Introduction to present legal framework for planning, introduction to type of plan prepared by various levels of governments, etc

### Course Outcome:

To expose students in theoretical discourses related to City Space, Economics, and Politics & Governance using current practices and knowledge.

### Course Content:

- History and principles of planning in the international and national context,
- Present planning and institutional framework available in the country, state and with local Governments,
- Introduction to present legal framework for planning,
- Introduction to type of plan prepared by various levels of governments, etc

### Assignment:

There will be a Seminar done by an individual student that will enquire into the range of tools that contribute to urban morphology, development regulations, and urban processes, non- formal settlements, etc. Seminar should necessarily explore the theoretical understanding of these various aspects.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- Report based on seminar topic (A4 size) with appropriate case references need to produced individually. (Number of words = 4000 to 5000)
- Power point presentation of the seminar topic

### Mode of Examination

Theory Paper

Sessional Term Work with Assessment

### References:

1. URDPFI Guidelines Volume-1 & 2. New Delhi: Govt. of India.
2. K. Siddhartha, S. M. - Cities, Urbanisation & Urban Systems (Settlement Systems).
3. Rao M.P. - Urban Planning: Theory and Practice.
4. Gallion A.B. - The Urban Pattern City Planning and Design

## URBAN DESIGN HISTORY

							Semester- I	
Subject Code- AR6UD1004								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	15	15	30	60	30	150	03

### Course Objective:

The aim of the course is to explore the range nuances and methods to understand the morphology of the city drawn broadly from disciplines of urbanism, geography, planning and legislative mechanisms. The unit explores the evolution of ideas and principles of urban design by focusing on the relationship between societal change and the formal organization of the urban environment. Historical, theoretical and critical lines of arguments will be pursued by examining urban places and spaces in their making, use and change, ranging from early civilizations to the present. The course also reviews the history and heritage of human settlements in India from ancient times to date. It also examines current trends in contemporary architecture planning and urban design practices in India and abroad.

The course is intended as a comprehensive study of urban form and urban spaces in historical and theoretical terms.

### Course Outcome:

Students are equipped to be exposed to the historical evolution of urban space and understanding of the morphological dimensions of public spaces.

### Course Outline:

1. Introduction to urban design – ideology/theory and the various concerns of the field. Urban Design through history
2. Introduction and Study - the evolution of city form- morphology (Urban form and Urban Process). Various theoretical views associated with nature of city form - Normative and positive theories; Cosmic, Machine and Organic Models; Descriptive and functional theories; Alternative theoretical postulations.
3. Study of the evolution of urban form (western context)
  - Chronological – Urban space through history (The Early Cities, Medieval Towns, Renaissance, Form of modern city; early cities of capitalism, City beautiful movement, Modern Movement, cities in the garden, Cites of theory and sweat equity & highway.)
  - City as patterns; diagrams; spaces and ideas (organic; grid; political functional-secularist- socialist diagrams; grand manner; skyline; city edge; urban division; public spaces- various typologies including street and parks; Islamic cities in the Middle East)
  - Comparison between the various perspectives of studying and analyzing urban form-space; conservation and the life of urban form.
4. Understanding Urban Process (rise and fall of cities; disaster; destruction; haussmanization; incremental changes; urban renewal)
5. Modern and post-modern urbanist theories (Utopia; Lynch's ideas of good city form; Imageability and Memory, public and private domains; Suburbs and periphery; Privacy, Territoriality and Proxemic theory; Defensible spaces; ideas of community through design; treatment of urban space; future of the city)
6. A critical understanding of changing attitudes towards urbanism and urban spaces
7. A critical examination of current trends in contemporary architecture and planning in India



**Assignment:**

The assignments will study a variety of public spaces both historical and contemporary critically analyzing the origins and their derivatives to explore the relationship between its form and their derivatives.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

Each student will study minimum five urban spaces from different context& theoretical background, to understand its form, its origins, its derivatives, and its diagrams. A2/ half imperial report to be produced individually for term work.

**Mode of Examination**

Theory Paper

Sessional Term Work with Assessment

**References:**

1. Spiro Kostof , The City Assembled , Thames and Hudson. Spiro Kostof , The City Shaped, Thames and Hudson.
2. Jon Lang , Urban Design Typology and procedures, Architectural Press
3. A.E.J. Morris , History of Urban Form, Longman Scientific and Technical. Kevin Lynch , Good City Form, MIT Press.
4. Edmund Bacon, Design of Cities.
5. Geoffrey Broadbent, Emerging

## DIGITAL SKILL FOR URBAN DESIGN

							Semester- I	
Subject Code- AR6UD1005								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	30	30	0	0	90	150	03

### Course Objective:

The objective is to introduce relevant computer application such as geographical information system and other software systems including 3D computation tools for documentation, mapping, analysis and presentation for urban design tasks, site planning etc, explaining their theoretical base, practiced by hands on training on the studio problem or other assignments.

### Course outcome:

The students are equipped with the use of multiple computation techniques, relevant software and application for analysis, conceptualization, and communication of urban design schemes.

### Course Contents:

- Introduction to GIS and its applications in Urban design
- Turning Geographic information into GIS data
- GIS data procurement
- Creating maps- symbology and visualization advanced mapping application, annotations, web mapping etc.
- Common analytical tasks
- Working with data-raster data, CAD data and hydrology data
- Practical urban design exercises.

### Studio Assignment:

Students need to submit a project/s report comprising of application of GIS skills for spatial representation and analysis as per the context and present the same.

### Mode of Examination

No Theory Paper

Sessional Term Work with Assessment

### References:

1. Learn QGIS: Your Step-by-step Guide to the Fundamental of QGIS 3.4, 4th Edition
2. Urban planning and development applications of GIS - Said Easa; Yupo Chan
3. GIS in Sustainable Urban Planning and Management - Martin van Maarseveen, Javier Martinez, Johannes Flacke
4. GIS for Housing and Urban Development by National research council of the national academes

## ELECTIVE-1

							Semester- I	
Subject Code- AR6UD1006								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
00	04	20	20	0	0	60	100	02

### Course Objective

This Elective course is designed on the vision and the strength of course in each individual institution. This elective will be attended by all the students.

- To introduce the students to the subjects of Elective course
- To offer the students to study the subject of their choice
- To initiate critical thinking regarding the subject

### Course Outcome:

The students are equipped to read and understand the contemporary issues related to urbanism to understand the comprehensive nature of Urban Design. To expose students in theoretical discourses related to City Space, Economics, Politics & Governance using current practices and knowledge.

- To Introduce the students to the scope of each elective subject.
- To study the subject through its theoretical and practical aspects
- To understand the subject from experts and case studies.
- To formulate the assignments to have a comprehensive recognition of nature of the subject/s.
- To prepare a report with theoretical study and individual assignments related to understanding and application of the subject/s.

### Choice of Elective subject and Course Content

Any one of the 3 Elective subjects should be studied in this semester

- A. Indian Urbanism,
- B. Comparative Urbanism,
- C. Contemporary Theories of Urbanism and Architecture

#### A. Indian Urbanism

- The course is intended to develop an understanding of key issues of urbanism in India, its dilemmas, ideologies, and the new patterns that it has taken with neoliberalism.
- The course covers on issues of Indian urbanism related to polity and colonial legacy, ideology of tenure and exchange, environment and water, daily life and informal sector, gender, art and media in the city.
- The course would be conducted through readings, discussions and expert lectures covering case studies and published research works.

#### B. Contemporary Theories of Urbanism and Architecture

The course is intended as an exposure to the current theoretical trends in architecture and urbanism. Although the focus would be on western architecture, cross reference to contemporary Indian trends shall be discussed

- Post Modernism and post functionalism. Postscript to the modern movement. Semiotics and structuralism. Post structuralism and deconstruction.
- Urban theory after Modernism, contextualism, Main Street and beyond. Collage city and towards the contemporary city.

- School of Venice, territory and architecture, an analogical architecture. Political and ethical agenda, the ethical function of architecture.
- Phenomenology and meaning of place, Heidegger's thinking on architecture, a look at the phenomenology of architecture.
- Critical regionalism, local culture, and universal civilization. Tectonic expression. Brief review of the issues of Gender in architecture.

### **C. Comparative Urbanism**

- This subject introduces the student to urbanism in the Asian context, its many facets compared to western cities, both functionally and in form.
- Types of Indigenous contemporary settlements. – Comparison of functional structure of Western and Asian cities.
- Nature of city form, climate, typologies, public space systems and architectural expression. – Cross – cultural influences in the development of city.
- Historic cores and contemporary urbanism. – Issues of growth and value additions in the context of globalization.

### **Studio Assignment:**

Term work could be decided by the respective tutor conducting a specific elective. Enough assignments to be conducted and the same to be designed in such a manner that student's critical understanding of the urbanism and its various aspects and its issues could be assessed.

- To prepare a report with an in-depth study of theoretical and practical aspects
- To document completed work of an expert / project and appraise applications of the subject

### **Mode of Examination**

No Theory Paper

Sessional Term Work with Assessment

### **Reference Books:**

#### **References for A. Indian Urbanism:**

1. K. Siva Ramakrishnan and Arun Agrawal (Edit), Regional Modernities: The Cultural Politics of Development in India, Stanford University Press, 2003
2. Kenneth R Hall (Edit), Structure and Society in early South India, Oxford University Press, 2004
3. Malcolm Miles and Tim Hall (Eds), The City Cultures Reader, Routledge Taylor & Francis Group, 2004
4. Partha Chatterjee, The Politics of the Governed, New York: Columbia University Press, 2004.
5. Reader compiled by course instructor

#### **References for B. Contemporary Theories of Urbanism and Architecture:**

1. Kate Nesbit, Theorizing a new agenda for architecture, Princeton Architectural Press.
2. Michael Hayes, Architecture Theory since 1968, MIT Press.
3. Kevin Lynch, Good City Form, MIT Press.
4. Bernd Evers, Architectural Theory from Renaissance to the Present, Taschen, Koln

#### **Reference for C. Comparative Urbanism:**

1. Paul Meadows, Ephraim Harold Mizruchi - Urbanism, Urbanization, and Change: Comparative Perspectives.
2. Dr Jenny Robinson - Ordinary Cities: Between Modernity and Development.
3. Xiangming Chen, Ahmed Kanna - Rethinking Global Urbanism: Comparative Insights from Secondary Cities.

## ***SEMESTER - II***

## URBAN DESIGN STUDIO-2

							Semester- II	
Subject Code- AR6UD2001								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE SV	Total	Credit
02	06	50	50	0	0	150	250	05

### Course Objective:

The studio would help students identify broad urban design principles, based on any urban issue that the institution might choose to address. These principles would be generated through an intense process of site mapping, analyzing and identify patterns in a chosen urban context.

The studio should simultaneously explore and innovate on techniques of representation for these complex urban conditions.

The principles abstracted through the study should be used to frame urban design programs and projects. The studio should finally assist the students with the technique of place making for the given project.

### Course Outcome:

Students are enabled to conceive urban design projects preferably for live and real urban conditions, thereby understanding client dynamics as well as tangible deliverables.

### Course Outline:

The first part of the studio will be an introduction to urban design city study, analyzing the various factors that determine the morphology of the city and the referencing of selected sites to the study. As far as practicable the project should be a live problem carried out with the active participation of the client.

The Second Part will be to analyze and understand the inter-relationships of various factors of historicity, urban identity, morphology, socio-cultural patterns, ethnicity, urban economics, ecology and environment, mobility, and global influences form part of the inquiry.

The Third part will be to generate an urban design framework for intervening in the city. Demonstration of Urban Design ideas/strategies at various scales to understand its city level implications.

### Studio Assignment:

For this subject student will be assessed based on their processes of documentation, methods of analysis, theorization and articulation of the design problem and the design response.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- Comprehensive report of documentation, studies and analysis done by students in groups of four or five each. (Not less than A2 / Half Imperial-size)
- Design portfolio-1 showing theorization and articulation of design problem, design decision process, master plan & design strategies done by students in groups of four or five each. (A1 or max. A0 size / Full imperial size)
- Design Portfolio-2 showing design demonstration by an individual student for a part of from the master plan. (A1 or max. A0 size / Full imperial size)

### Mode of Examination:

No Theory Paper

Sessional Work with Viva

## PLANNING TECHNIQUES AND PROCEDURES -2

							Semester- II	
Subject Code- AR6UD2002								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	04	20	20	40	60	60	200	04

### Course Objective:

- To understand and study the use of aerial photography for planning techniques and procedures.
- To Understand the interaction between natural and physical environment.
- To introduce students to survey research process.
- To study analysis procedure for understanding the structure of urban areas

### Course Outcome:

Students are equipped with necessary information on town planning theories, principles, techniques, and methodologies. They gain a critical overview on planning processes and its impact on the development of an Indian city.

### Course Outline:

1. Aerial photography: basic principles and techniques of photogrammetry, photo interpretation and remote sensing. Collection of data by photo-interpretation and remote sensing techniques, analysis and interpretation of these data and compilation of interpreted data for the metric maps, specific applications in urban and regional planning, housing, urban design and landscape analysis.
2. Comprehend the interaction between types and intensities of land use, transportation, and broader dynamics of transformation in the physical environment. Concepts of land use, zoning regulations, mixed use development, Special Economic Zones. Planning standards and models
3. Introduce students to survey research process: primary and secondary sources of data, techniques of data collection, analyzing and presenting physical and socio-economic data, questionnaire design, and administration of field as methods of identifying urban and regional problems, setting of goals, objectives and priorities, performance standards, spatial standards, and standards for utilities. The students should also learn about the classification of regions, regionalization and deliberation technique for various types of regions, cluster and factor analysis methods. Planning surveys and sampling, evaluation of planning requirements
4. An overview of statistical and survey techniques used to in the preparation of a planning and urban design programs explaining the basic definitions and informing the student of the various methods, techniques and processes of planning, focusing on the latest methods of assessing and gathering information. Planning terms and their definitions
5. Analysis for understanding the structure of urban areas and demographic analysis, land value and density patterns, locational attributes of activity areas and locational dimensions of population groups. Forces of concentration and disposal, social area analysis, etc.
6. Preparation of urban and regional development plan various approaches comprehensive planning; systems approach to planning case studies identifying use of techniques. Concepts and theories of planning and their applications as Master Plans, Development Plans, Structure Plans etc. Concepts of Zonal Plans, Area Development Plans, Development Schemes, Urban Renewal, Redevelopment, City Development Plans, Planned Unit Development etc. Overview of Legal and statutory aspects of Planning, Town Planning Acts. Land acquisition Act and process, Land Pooling and other schemes

related to green field projects, Transfer of Development Rights. Public participation in planning process.

**Assignment:**

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- Sufficient number of tutorials in the class to review students understanding of the subject.
- Critical report writing on any one of the planning tool for urban design (A4 size report up to 1500 words with appropriate figures, images, diagrams, etc.)

**Mode of Examination**

Theory Paper

Sessional Term Work with Assessment

**References:**

1. URDPFI Guidelines Volume-1 & 2. New Delhi: Govt. of India.
2. Ramachandran, R., - Urbanization and urban systems in India, Michigan: Oxford University Press.
3. Shah, U. C., - Lectures on Planning Legislation, Suvidha Law House, Bhopal
4. Rao M.P. - Urban Planning: Theory and Practice., CBS Publishers
5. Weber R. & Crane. R. ed. - The Oxford Handbook of Urban Planning. New York. Oxford University Press



## URBAN SOCIOLOGY

							Semester- II	
Subject Code - AR6UD2003								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	15	15	30	60	30	150	03

### Course Objective:

The objective of the course is to create an understanding of the reproduction of contemporary culture in the post-colonial city resulting from interdisciplinary participation drawn from sociology, history, cultural studies, and political analysts.

### Course Outcome:

Students are informed of contemporary urban processes and characteristics of urbanism from the post- colonial period to the present-day including theories and discourses across related fields and disciplines.

### Course Content:

The course is structured around three modules:

#### i) Culture and Society

- Overview of cross-cultural influences in city development
- City as a human network – social structure and urban form
- Social access – territoriality, exclusion and inclusion, minority groups and the disadvantaged, children, and the geographies of disability
- Urban life-style diversity and spaces of consumption
- Contemporary culture – the metropolitan experience

#### ii) Post-colonial city

- Urbanism, colonialism and the world economy
- Cities of uneven economic development, nature of structural reform
- The politics of globalization and liberalization and their manifestations in the post-colonial city
- Memory violence and urban space, case examples of South Asian cities

#### iii) City in transition

From the geographies of modernity to post-modernity and beyond, the case example of Los Angeles and contemporary development trends across the world

- Discoveries and implications of the post-metropolis, globalization, and transnational urbanism
- Contemporary trends in the Asian city, conflicts, contestations, and hybridization within the multilayered urbanities of Indian cities

### Assignment:

The Seminar, through case studies will seek to establish an understanding of the process of layering – to read the current city backwards. Assignment to be judged for student's ability to theorize and articulate his/her thought/reading of the context.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- a. Report based on seminar topic (A4 size) with appropriate case references need to produce individually. (Number of words = 4000 to 5000)
- b. Power point presentation of the seminar topic

**Mode of Examination**

Theory Paper

Sessional Term Work with Assessment

**Reference:**

1. Colin Rowe, F. K., - Collage City. Massachusetts: MIT Press.
2. Venturi, Robert, Denise Scott Brown - Learning from Las Vegas: The Forgotten Symbolism of Architectural Form
3. Cuthbert, A. R., - Understanding Cities: Methods in Urban Design. New York: Routledge.
4. Ellin, N. - Postmodern Urbanism. Vol. revised edition. New York: Princeton architectural press.
5. Hayden, D. - The Power of Place, Urban Landscapes as Public History. Cambridge: The MIT Press.
6. Zukin, S. - The Cultures of Cities. Cambridge, MA: Blackwell.
7. Lefebvre, H., - The Production of Space. Massachusetts: Basil Blackwell Ltd.
8. Sassen, S., - The Global City: New York, London, Tokyo. New Jersey: Princeton University press.

## RESEARCH METHODOLOGY

							Semester- II	
Subject Code – AR6UD2004								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	15	15	30	60	30	150	03

### Course Objectives:

- To introduce the rigor of basic research in the critical analysis and interpretation of urban phenomena and data.
- To guide both studio and theory-based enquiries of students towards structured, systematic, and targeted research yielding qualitative and quantitative outputs.
- To understand procedures or techniques used to identify, select, and analyze information about a topic.

### Course Outcomes

- Knowledge - Students will be familiarized with the basic of research and the research process
- Evaluate - Students will also be able to explore research work in the field of urban design
- Implement - learnings will be helpful for their synopsis, thesis report, research paper, book review

### Course Outline

- Introduction of Research and Research methods, research Methodology, types of Research, criteria for good research, scope of the research
- Relevance of research in a design discipline, its role in the built environment
- Types of research: applied, theoretical, empirical, qualitative, quantitative etc.
- Action based research in contemporary urban development and design.
- Definition of Hypothesis & research question
- Data collection methods-Identifying the approach for collecting data from both secondary and primary sources
- Analytical methods used for urban design.
- Socio-economic research techniques such as surveys, questionnaires, interviews, group discussions, participant observation,
- Sampling methods & data representation methods
- Introduction to abstract, research paper writing and its technical aspects
- Literature review and subsequent evolution of a theoretical framework
- Report Writing: Writing and formulating of reports, synopsis, steps in report writing, types of report.
- Technical aspects related to writing like copywrite, plagiarism, referencing, cross referencing, foot notes etc.

### Assignment:

Assignments should be frame on each topic of the subject. It is desirable to write research paper on their area of interest.

### Mode of Examination

Theory Paper

Sessional Term Work with Assessment

**Reference Books:**

1. Research Methodology by C R Kothari and Gaurav Garg.
2. Methodology And Techniques of Social Research by Wilkinson & Bhandarkar.
3. Research Methodology by R Panneerselvam.
4. Quantitative Techniques in Management by N. D. Vohra.
5. Research Methodology–An Introduction by Kumar & Ranjit.

## LANDSCAPE DESIGN & URBAN ECOLOGY

							Semester- II	
Subject Code - AR6UD2005								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	30	30	0	0	90	150	03

### Course Objective:

This unit helps the student to gain knowledge on urban landscape, theories and practices. This course is supplemented by a studio where the students are taught to implement these methods and respond by framing sensitive design strategies. At the end of this course, students will: 1) understand key concepts related to urban ecology (UE) and its intersection with the planning and design disciplines; 2) be able to critically examine how planners and others can support, facilitate, harness and mitigate UE systems in a way that incorporates equity, public health, community development, environmental, and economic development goals; 3) be familiar with the relationships between urban ecology and diverse human populations, including but not limited to population characteristics such as gender, race, ethnicity, and socioeconomic status.

### Course 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.

### Course Outline:

1. Introduction to site analysis with emphasis on study of natural and manmade features of the site.
2. Site Planning: Site, User, Program and Design. Sensed landscape and its materials, access, earth work and utilities. Field surveys, reading aerial survey, climatic variables. Site Planning strategies and case studies. Site resource systems Physiographic Geology and soils Hydrology Micro-climate Vegetation Wildlife, terrestrial and aquatic, Cultural resources
3. Landscape design concepts and design of open and public spaces, recreation areas, roadside landscapes. Urban vegetation, planning & maintenance, Site grading and drainage, Sewerage, water supply and electricity, Surveys and overlays
4. Ecology: Basic concepts of ecology, components of environmental planning, use and management of resources; environmental concerns related to development; environmental degradation; pollution control and evaluation of energy resources. Ecological factors in site evaluation. Ecological planning processes, theories and approaches
5. Introduction to environmental planning concepts, spatial environmental planning. Eco-system and components of ecosystem structure; principles of ecology; physical science; earth science; man-environment interface towards sustainable development.
6. Sustainable urbanity and urban climate change: ECO URBANITY- Towards well-directed urbanity.
7. Urban landscapes and Sustainable cities: Urban Biodiversity and ecology.

8. Ecology and settlements, changing Role, of Terrain, water, and vegetation.

The studio will choose a suitable site where the students will map, evaluate, and analyze the site from the knowledge imparted in the theory classes and will produce a site plan for an appropriate design program having multiple activity/functional zones.

### **Studio Assignment:**

For this subject student will be assessed based on their process/es of documentation, methods of analysis and the judicious understanding of the site planning process along with the content.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:  
Comprehensive report of appropriate data collection, documentation, studies and analysis done by students in groups of two or three. (not less than A2 / Half Imperial–size) Site planning portfolio showing planning & design decision process and conceptual design done by students in groups of two or three each. (A1 or max. A0 size / Full imperial size)

### **Mode of Examination**

No Theory Paper

Sessional Term Work with Assessment

### **References:**

1. Kevin Lynch, Good City form, MIT Press, Cambridge
2. Kevin Lynch and Gary Hack, Site Planning, MIT Press, Cambridge
3. Peter Jacobs and Douglas Way, Visual Analysis of Landscape Development, Harvard press
4. Gary O. Robinette (Ed), Landscape Planning and Energy Conservation, Van-Nostrand Reinhold
5. Design with Nature, Ian Mc Cargh, MIT Press.
6. The Landscape of Man: Geoffrey Jellicoe and Susan Jellicoe.
7. Geography of Settlements. Author: R.Y. Singh. ISBN

## ELECTIVE-2

							Semester- II	
Subject Code- AR6UD2006								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
00	04	20	20	0	0	60	100	02

### Course Objective:

- To study the factors which effect the image of the city and develop knowledge, understanding, and critical thinking related to Imagining city
- To understand urban morphology through perception, cognition and Spatial aspects of a city structure and gain a sense of growth and continuity-physical and functional without disconnect from the related/complimentary functions/areas by Gain knowledge on the fluvial dynamics; channel characteristics and slope development processes focusing on geomorphic threshold and extreme events using both conventional and advanced techniques
- To expose students to the multidisciplinary and interdisciplinary nature of conservation, so as to ensure students develop skills required to function as responsible professionals. This will equip students to develop models of sustainable integrated conservation addressing the complexities of historic buildings, heritage cities and cultural landscapes in India. The course recognizes that integrated and holistic approaches are vital for inclusion of heritage into mainstream development processes.

### Course Outcome:

The students are equipped to read and understand the contemporary issues related to urbanism so to understand the comprehensive nature of Urban Design. The course will introduce the students to the scope of each elective subject. It will provide students with a rigorous and critical understanding of the Imagining city. Students are familiarized with factors that shape Urban Morphology and gain understanding of perceptive and cognitive elements of City Structure. Students will learn how to engage in all aspects of the problem-solving process including the different types of developmental issues while being sensitive to social responsibilities, sustainability, and urban interventions. The assignments are to be formulated to have a comprehensive recognition of nature of the subject/s. To prepare a report with theoretical study and individual assignments related to understanding and application of the subject/s.

#### Suggested List of Topics:

- 1) Imagining City
- 2) Structure as expression of urban morphology
- 3) Art and Science of Conservation

### 1) Imagining City

City images are not static, but subject to constant revision and manipulation by a variety of media-savvy individuals and institutions. In recent years, urban designers (and others) have used the idea of city image proactively-- seeking innovative ways to alter perceptions of urban, suburban, and regional areas. City imaging, in this sense, is the process of constructing visually-based narratives about the potential of places.

- Urban Development: World Trends, Challenges and Opportunities

- Imagining City: parameters, critiques
- Livability index: About, Scale, Survey, ranking and overview.

## 2) Structure as expression of urban morphology.

Over the past few decades there has been a growing awareness of the importance of urban form in connection with the many dimensions – social, economic, and environmental – of our lives in cities. As a result, urban morphology – the science of urban form, and now over a century old – has taken on a key role in the debate on the past, present and future of cities.

- **Section I: Introduction to Urban Morphology –**  
Triggers and Outcomes of urbanization.  
Study of patterns of distribution and interaction within cities, from quantitative, qualitative, structural, and behavioral perspectives.
- **Section II: Understanding Urban Morphology through:**  
Cognition, perception and spatial representation. Cognitive mapping- Contemporary and traditional methods.
- **Section III: Urban Growth and System of Cities:**  
Growth of metropolitan and mega cities: scale, complexity.  
Metropolitan growth– Trends, characteristics, challenges, socio-economic and political issues.

## 3) Art and Science of Conservation

Objective of this subject is to introduce students to different theories, philosophies that have significant contribution in the development of conservation practices.

- Conservation as a concept and its Background
- History of Conservation Movement.
- Theory and philosophy of conservation
- Organizations involved in conservation fields- International, national, regional and local
- Introduction to various charters- International & National.
- All Charters from Venice to Mexico
- Special focus on Indian Context
- Human rights and values
- Heritage Legislations- Indian Context.
- All Charters from Venice to Mexico Contribution of ASI
- Special focus on Indian Context Contribution of INTACH
- Human rights and values Concepts of Heritage cell in mainstream local governance

### Studio Assignment:

Term work could be decided by the respective tutor conducting a specific elective. Enough assignments to be conducted and the same to be designed in such a manner that student's critical understanding of the urbanism and its various aspects and its issues could be assessed.

- To prepare a report with an in-depth study of theoretical and practical aspects
- To document completed work of an expert / project and appraise applications of the subject

### Mode of Examination

No Theory Paper

Sessional Term Work with Assessment



**Reference:****Imagining City**

1. Imagining the City - Felicity Swanson, Renate Meyer, Sean Field; HSRC Press

**Structure as expression of urban morphology**

1. The continuing city: urban morphology in Western civilization - James E. Vance; Johns Hopkins University Press
2. Thinking About Urban Form: Papers on Urban Morphology - Michael R. G. Conzen, Michael P. Conzen; Peter Lang
3. Study of an Urban Morphology: Jaisalmer, India - Balmiki Bhattacharya; University of Idaho

**Art and Science of Conservation**

1. Conservation of Historic Buildings - Bernard Feilden D; Architectural Press
2. A History of Architectural Conservation - Jukka Jokilehto; Butterworth-Heinemann
3. Conservation Manual - John Marshall; Caxton Publications

## ***SEMESTER - III***

### URBAN DESIGN STUDIO 3

							Semester- III	
Subject Code- AR7UD3001								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE SV	Total	Credit
02	06	50	50	0	0	150	250	05

#### Course Objective:

In this semester the studio should allow the students to engage with various actors and agencies, learn to communicate with them, and devise pragmatic and localized programmatic strategies on complex urban issues.

#### Course Outcome:

Understanding the underlying interest of the key participants in the process of development - [activist group(NGO's), Target Group(Residents/Shop-keepers/communities), owners & Implementing Agencies(Government Organisations/Political Groups/private developers/financing agencies)], Issues, Desires, Social Physical Connection, Interests of Stakeholders, Disputes, and proposing dynamic multi-scalar design strategies, Guidelines, Building Codes, etc

#### Course Outline:

The aim would be to provide a practice orientation to the studio. It is in this studio that the students can learn to formulate urban design possibilities through a process of continuous interaction with these actors and agencies.

Students need to study the degraded urban fabric, patterns of decay, socio-political issues and urban regeneration strategies/intervention to be explored in this studio.

Shaping urban extensions through morphological approach, infrastructure inserts, addressing environment concerns and imageability.

The involvement of user groups and decision-making agencies as a part of the project formulation and appraisal should be encouraged. Brown field sites may also be chosen for the exercise.

#### Studio Assignment:

For this subject student will be assessed based on their processes of documentation, methods of analysis, theorization and articulation of the design problem and the design response.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- Comprehensive report of documentation, studies and analysis done by students in groups of four or five each. (not less than A2 / Half Imperial-size)
- Design portfolio-1 showing theorization and articulation of design problem, design decision process, master plan & design strategies done by students in groups of four or five each. (A1 or max. A0 size / Full imperial size)
- Design Portfolio-2 showing design demonstration by an individual student for a part of from the master plan. (A1 or max. A0 size / Full imperial size).

#### Mode of Examination

No Theory Paper

Sessional Work with Viva

## URBAN BYLAWS AND PLANNING LEGISLATION

							Semester- III	
Subject Code- AR7UD3002								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	15	15	30	60	30	150	03

### Course Objective:

This course engages the student with the awareness of govt. policies, regulations, rules and laws related to land, property and urban development as well as urban governance structure.

### Course Outcome:

Students are equipped with necessary information on urban governance and institutional frameworks, legal mechanisms for project planning and delivery. Using planning policies as a tool to strike a balance between conservation and development

### Course Outline:

- Statutory powers and responsibilities of the Central Government with respect to Urban Development and the role of implementing agencies
- Powers of the State Governments and Union Territories, decision making bodies and their legal structure
- Town Planning Acts in India and their implementation strategies – critical appraisal • Statutory powers of the Local Bodies and Local Authorities
- 73rd and 74th Constitutional amendments, their implications on urban governance and local bodies
- Rent Control Act
- Environment Protection Act,
- Co-operative Society Act, Apartment Ownership Act
- RERA
- Development Control Rules and Regulation

### Assignment:

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- Sufficient number of tutorials in the class to review students understanding of the subject.
- Critical report writing on any one of the planning policies with implementation strategy study and review (A4 size report up to 1500 words with appropriate figures, images, diagrams, etc.)

### Mode of Examination

Theory Paper

Sessional Term Work with Assessment

### Reference:

- URDPFI Guidelines Volume-1 & 2. New Delhi: Govt. of India.
- Planning Techniques for AITP, Reader on Institute of Town Planners India
- Shah, U. C., -Lectures on Planning Legislation. Suvidha Law House, Bhopal
- Dr. P. Chandra Mohan - Quick Reference for Coastal Zone Regulations (Crz) for Indian Coastline - Crz Classification 2019
- UDCPR Guidelines for Maharashtra State, Govt. of Maharashtra

## DEVELOPMENT FINANCE

							Semester- III	
Subject Code - AR7UD3003								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	15	15	30	60	30	150	03

### Course Objective:

The course would introduce the students to the economic, financial frameworks, and the attendant institutional frameworks of project and property development in both the public and private sectors. It should inform the students of the present mode of financing projects and discuss their strengths and weakness through the relevant case studies. Students should be made aware of project formulation and options of project financing. The students should also know about urban finance and funding options

### Course Outcome:

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

### Course Outline:

- 1) Fundamental concepts and principles of investing and financing of real estate projects.
- 2) The macro-economic fundamental that assist in the creation of an apt environment for real estate investments environment
- 3) The micro level details of a real estate project
- 4) Introduction to project master planning, project costing, phasing and options of financing, basics of project financing and working out economic viability of the project.
- 5) The finance for building industry
- 6) Students should be made aware of land based fiscal tools.

Students should understand the importance of city infrastructure development and funding options of infrastructure development available with urban local bodies

### Assignments:

The students should be encouraged to create financial mechanisms for their own projects being parallel conceived in the Design Studio.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- Sufficient number of tutorials in the class to review students understanding of the subject.
- Critical analysis of the project case study on project formulation and financing with implementation strategy
- Analysis of project costing, phasing, implementation strategy and financing options of their own design project

### Mode of Examination

Theory Paper

Sessional Term Work with Assessment

### References:

1. Adams, D., - Urban Planning and The Development Process. Routledge.
2. Chandra. P. - Financial Management. Tata McGraw-Hill
3. Ramaswamy B. S., - Contracts and their Management. Lexis Nexis

## TRANSPORTATION AND TRAFFIC

							Semester- III	
Subject Code- AR7UD3004								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	15	15	30	60	30	150	03

### Course Objective:

The unit presents both fundamental and advanced traffic and personal/public transport strategies for better urban design.

Besides basic engineering and design principles for roads and streets, it explores transport policy and planning choices at the local scale in relation to multi-modal optimization programs and projects.

Emphasis is on the full integration of local transport parameters into urban design, as well as on comprehensive strategies towards environmental innovation. It is also intended as an introduction to the issues related to traffic and transportation in cities. In addition, it is intended to provide an overview of the transportation planning process.

### Course Outcome:

Students are informed of urban infrastructure both social and physical, transportation systems, standards policies, and techniques for design of pedestrian spaces, parking and other modes of travels, etc. along with their relationship with urban design.

### Course Outline:

1. Concepts of urban infrastructure; social and physical infrastructure.
2. Concepts of TOD and transportation engineering.
3. Introduction to the financing of urban transportation network. National and international agencies involved in infrastructure provisions.
4. Scope of urban transport planning, interdependency of land use and traffic system, traffic system approach to urban transportation.
5. Stages in Urban Transportation: Trip generation, trip production, trip distribution, modal split and trip assignment.
6. Urban Transportation surveys: Definition of study area, zoning, types of surveys, forecasting traffic in relation planned land use. Principles of planning and design of road network and engineering classification of roads, intersections, and elevated roads.
7. Public Transportation modes: Systems in India, problems and prospects, present practices in urban transportation. Metro, mono, and high-capacity buses. System selection.
8. Intersection Design: Elements of intersection maneuver area, types of intersections, flyover, grade separators, subways, underpass, and suitability of each type. Rotary and its design, Roundabouts

### Assignment:

The internal assessment should preferably be related to the design studio surveys or on-site information for which specific surveys can be conducted during the site surveys for the design studio.

### Mode of Examination

Theory Paper

Sessional Term Work with Assessment

**References:**

1. Kadiyali L.R. Traffic Engineering and Transportation Planning, Khanna Publications.
2. Dimitriou H.T. Urban Transport Planning and Developmental Approach, Routledge, London.
3. Michael J Bruton, An Introduction to Transportation Planning, Hutchinson, London.
4. Black John, Urban Transport Planning and Design, Crown Helm Ltd, London.
5. Papacostas and Prevendours, Transportation Engineering and Planning, PHI Publication.
6. Khisty and Lal, Transportation Engineering PHI publication.

## DISSERTATION (Research Paper Writing)

							Semester- III	
Subject Code - AR7UD3005								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	04	40	40	0	0	120	200	04

### Course Objectives:

To equip students with methodological and management tools to undertake an individual, self-driven design/research exploration on a thesis topic of their choice as assimilation of the learning process in the urban design program.

### Course Outcomes

1. To finalize exact title of the dissertation topic.
2. To prepare a report with research design and structure.

### Course Outline

The course is seen as a pre-thesis preparatory engagement involving tasks related to the following:

1. Exploring and articulating areas of topical interest
2. Raising questions for design and research inquiry
3. Establishing relevance and need
4. Identifying and reviewing connected literature and case examples
5. Developing critical positions on urban conditions in relation to the chosen interest area
6. Articulating a well-established case for urban design engagement and connected outcomes.
7. Formulating a methodological path for conducting the thesis, defining scope and objectives
8. Writing a detailed thesis proposal for consideration and approval

Students are equipped with necessary tools and methodological processes for exploring and defining individual thesis inquiry and writing an informed proposal for the same.

### Assignment

To prepare a report with synopsis, aim and objectives, need and relevance, scope and limitation, data collection topics, analysis methodology, hypothesis or probable conclusion, future scope of research, resources, and references.

### Mode of Examination

No Theory Paper

Sessional Term Work with Assessment

### Reference Books

Literature, books, resources related to all subjects of the course



### ELECTIVE-3

							Semester- III	
Subject Code - AR7UD3006								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
00	04	20	20	0	0	60	100	02

#### Course Objective:

- To develop lateral thinking towards understanding of the cities and its complexities through various topics of related to urban design.
- To develop knowledge, understanding, and critical thinking and implementation, related to smart urbanism- emphasising Sustainable urbanism, Housing policies and procedures and Planning Theory
- To apply the lessons learned and more recent views about Urbanism and its complexities.

#### Course Outcome:

- To Introduce the students to the scope of each elective subject.
- The course will provide students with a rigorous and critical understanding of urban development.
- This course will develop skills in students in preparing and presenting policy matters to a public audience.
- The course will provide students with critical understanding of related theories and give alternative perspectives to look at the complexities of various topics related to urban design and its dynamics, also lateral ideas about the perceptions, conceptions, and the representations.
- To formulate the assignments to have a comprehensive recognition of nature of the subject/s.

#### Choice of Elective subject and Course Content

Any one of the 3 Elective subjects should be studied in this semester

- 1) Sustainable urbanism
- 2) Housing policies and procedures
- 3) Planning Theory

#### Course Outline:

##### 1) Sustainable urbanism

Course is designed to enhance the quality of cities around the world by bringing sustainable urbanism into a new relationship with the latest research. Students will learn about the structure of urban development, the way that city's function, and how people use them in order to create urban places that respond to the major opportunities and challenges facing society.

- Urban Development: World Trends, Challenges and Opportunities
- Sustainability, Sustainable Development and Characteristics of Sustainable Cities
- Theories, Practices, Institutions and Organizations
- Measuring Sustainability
- Green Economy and Smart Growth: Economic Perspectives
- Climate Change and Disaster Management for Sustainable Cities: Making Our Cities Safer and Resilient
- Waste, Water and Sanitation in Urban Development
- Energy and Urban Development
- Transport and Urban Development
- Land Use and Urban Green Space
- Urban Design: Place Making
- Good Practices and Lessons Learnt from Urban Development

## **2) Housing policies and procedures**

‘Housing for All’ is a primary aim of Government of India for long. It has formulated Housing for all mission with a Sub-mission focused on ‘technology’ to enhance the social housing delivery.

Government has also been creating an enabling environment for private player through reforms in land and financial sectors to increase overall supply. As a result, several state governments have formulated their affordable housing policy under which framework various private and joint venture companies are delivering mass social housing.

Section I: Housing policy: Policy, planning & strategies, Past Programs, Legal Provisions, Land & Land Reforms, Affordability & Housing Finance, National Housing Policies, State Affordable Housing Policies, Programs & Schemes

Section II: Housing planning: City and regional planning, Strategic planning, Development controls, Housing Infrastructure and amenities, Group and plotted housing, Cooperative housing, Slum improvement, Special housing types, Governance & Management and Discussion

## **3) Planning Theory**

Course is designed to outlines the main theories of planning, from the traditional view of urban planning & urban design as an exercise in physical design, to the systems and rational process views of planning in addition to those new ways of planning of utopian cities will be understood through the visual extensions of particular social theories of utopian concepts and their models of new and perfect social order in urban space.

- Planning theories in the past
- Planning as a Political Process/ Expression
- Utopian Cities
- Social order in urban space.
- Paradigm Shift, Modernism & Post Modernism
- Town Planning as Physical Planning and Design

### **Sessional Assignment:**

Term work could be decided by the respective tutor conducting a specific elective. Enough assignments to be conducted and the same to be designed in such a manner that student’s critical understanding of the urbanism and its various aspects and its issues could be assessed.

- To prepare a report with an in-depth study of theoretical and practical aspects
- To document completed work of an expert / project and appraise applications of the subject

### **Mode of Examination**

No Theory Paper

Sessional Term Work with Assessment

### **Reference:**

#### **1) Sustainable urbanism**

1. Sustainable Urbanism Design with Nature - Douglas Farr;Wiley; 1st edition, 2008
2. Sustainable Urban Design: An Environmental Approach -Ritchie;T&F India
3. Sustainable Urban Planning in india -Joy Sen;Teri Press
4. UN Sustainability Goals
5. Disaster Vulnerability: Management & Mitigation - Bedpraks Sym Roy, Maniparna Srym Roy; Kalpaz Publications, 2019

#### **2) Housing policies and procedures**

1. Housing Politics in Urban India, Opportunities and Contention - Rao Dhananka, Swetha; Cambridge University Press
2. The Legal Rights to Housing in India - Anindita Mukherjee; Cambridge University Press
3. Urban Governance in India - C. Nagataja Rao ;Kalpaz Publications
4. Policies and Guidelines - Ministry of Housing and Urban Affairs, India.

5. Inclusive Urban Planning: State of the urban poor Report 2013 - Ministry of Housing and Urban Affairs, India. - Oxford

### **3) Planning Theory**

1. The Story of Utopias - Mumford Lewis; Read Books
2. Deam Cities: Seven Urban Ideas that Shape the World - Wade Graham; Harpar Perennial
3. Planning Theory: A Search for Future direction - Robert W. Bruchell & George Sternlieb; Transaction Publishers

## ***SEMESTER - IV***

## DISSERTATION

							Semester- IV	
Subject Code - AR7UD4001								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE SV	Total	Credit
04	16	100	100	0	0	400	600	12

### Course Objective:

In this semester the students are required to demonstrate their urban design proposal based on principles and methods that have been framed in the earlier semester. The students should be assisted in evolving a representational system for communicating the proposal that would be done through periodic reviews with their guide/guides. This would be additional to the written report that is a part of the submission of the earlier semester.

### Course Outcome:

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

### Course Content:

This dissertation is a self-directed investigation of an urban design topic of the students' choosing, which will be submitted in the form of a written Dissertation report and drawing sheets.

The tutorial will assist the students to strengthen the theoretical base of the thesis and analyze relevant successful design demonstrations through case studies.

The tutorial will assist the student in research methodologies, conducting of surveys, identifying case studies etc.

### Studio Assignment:

For this subject student will be assessed based on their process of approaching an urban concern; research and theoretical methodologies application and reaching the final proposal stage.

Minimum Assignment/s submissions towards Sessional Work & Oral Examinations shall include:

- A hardbound comprehensive report of documentation, studies and analysis done by student in the form of dissertation report
- Design portfolio showing design decision process and conceptual design done by student.

### Mode of Examination

No Theory Paper

Sessional Term Work with Viva

## ELECTIVE-4

							Semester- III	
Subject Code - AR7UD4002								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE STW	Total	Credit
02	02	30	30	0	0	90	150	03

### Course Objective:

This Elective course is designed on the vision and the strength of course in each individual institution. This elective will be attended by all the students.

### Course Outcome:

The students are equipped to read and understand the contemporary issues related to urbanism so to understand the comprehensive nature of Urban Design

- To Introduce the students to the scope of each elective subject.
- To study the subject through its theoretical and practical aspects
- To understand the subject from experts and case studies.
- To formulate the assignments to have a comprehensive recognition of nature of the subject/s.

### Choice of Elective subject and Course Content

Any one of the 3 Elective subjects should be studied in this semester

1. Urban Infrastructure
2. Environment Discourses and Political Ecologies
3. Project Management

#### 1. Urban Infrastructure

The aim of this course is to understand urban issues that signify everyday urban conditions with particular emphasis on Indian urban centers and connected policy-management frameworks. As part of this course, issues revolving around important aspects of urban development – Infrastructure is to be discussed. The course will focus on issues of Infrastructure (both physical and social) including large-scale interventions for the same as visible across urban centers in India.

1. Political economy of infrastructure provision – equity and access
2. Transport, environment and development
3. Technological innovations and emerging smart infrastructure networks
4. Social infrastructure and community life
5. Infrastructure and poverty
6. National Missions and policies on infrastructural provision
7. Management of infrastructural networks

#### 2. Environment Discourses and Political Ecologies

To introduce the students of the various political and environmental issues in the current urban projects.

1. Introduction and understanding political ecology,
2. Theorizing nature-society-capitalism,
3. The political ecology of energy and extraction,
4. Commodification and waste,
5. Environmental conflicts,
6. Environmental politics I: social movements and protest,
7. Environmental politics II: activism, Urban political ecology, Commons,
8. Tools for political ecology research: Methods and methodologies, Communicating political ecology, role of political ecologists.

### **3. Project Management**

To introduce the students of the various methodologies, policies and financial frameworks pertaining to urban projects.

- Introduction to Development Planning and management; Society, State and Market; Privatization, Liberalization and Decentralization; Equity and Development
- Introduction to project planning, theories, concepts, and management
- Overview of the various methodologies of project definition, planning and formulation.
- Norms, standards, aspects, and methods of project appraisal
- Concepts of Project management, systems, frameworks, and techniques
- Implementation strategies, scheduling, activities, progress reviews, corrective actions etc
- Economic and financial feasibility concepts and methods
- Project funding, economic feasibility, and methods of recovery
- Mandatory legal and environmental approvals
- 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.

#### **Assignment:**

Term work could be decided by the respective tutor conducting a specific elective. Sufficient number of assignments to be conducted and the same to be designed in such a manner that student's critical understanding of the urbanism and its various aspects and its issues could be assessed.

#### **Mode of Examination**

No Theory Paper

Sessional Term Work with Assessment

#### **Reference:**

##### **1. Urban Infrastructure**

1. CPHEERI Manual on Water Supply and Sewerage, New Delhi.
2. T.P.Salvats, Environmental Engineering and Sanitation, Wiley and Sons, New York
3. Urban Infrastructure and Governance; Edited By G Ramesh, Vishnu Prasad Nagadevara, Gopal Naik, Anil Suraj
4. Redeploying Urban Infrastructure: The Politics of Urban Socio-Technical Futures; Rutherford, Jonathan

##### **2. Environment Discourses and Political Ecologies**

1. Adams, W. M. and J. Hutton (2007). "People, Parks and Poverty: Political Ecology and Biodiversity Conservation " Conservation and Society
2. Bush, R. "Scrambling to the Bottom? Mining, Resources & Underdevelopment." Review of African Political Economy
3. The Politics of Land. Tim Bartley (ed.). Emerald.
4. UNRULY HILLS - A Political Ecology of India's Northeast; Bengt G. Karlsson

##### **3. Project Management**

1. A Guide to the Project Management Body of Knowledge, Fourth Edition. Project Management Institute, USA.
2. Sears. S.K, et. al. Construction project management: A Practical Guide to Field Construction Management. John Wiley & sons
3. Chitkara. K. K. Construction Project Management: Planning, Scheduling and Controlling. Tata McGraw-Hill
4. Chandra. P. Financial Management. Tata McGraw-Hill
5. Ramaswamy B. S., Contracts and their Management. Lexis Nexis

6. Batra.L. A Review of Urbanization and Urban Policy in Post-Independent India (Working Paper Series). JNU



## PROFESSIONAL TRAINING

							Semester- IV	
Subject Code - AR7UD4003								
Teaching		Evaluation Scheme						
Theory	Studio	CA1	CA2	MSE	ESE Paper	ESE SV	Total	Credit
00	00	0	0	0	0	250	250	05

### Course Objective:

To undergo professional training and understand diverse aspects of urban projects.

### Course Outcome:

To get a practical working experience and knowledge.

### Course Content:

1. Each student must participate in professional training for at least 6 weeks in a facility approved by the department. The practical training will begin during the summer break between the second and third semesters.
2. Service scope for various projects such as master plan for urban area, zonal district plan, sector/neighborhood layout, group-housing schemes, commercial centers, industrial estates, and so on.
3. Developing an urban design programme and coordinating with various authorities

### Assignment:

A student must submit a performance report from the firm/organization where the training is taking place, as well as a detailed report on the work he did during the training.

The external jury will award the marks for the practical training based on viva-voce examination of the student on the work rendered by the student during training.

### Mode of Examination

No Theory Paper

Sessional Term Work with Viva