THIAGARAJAR COLLEGE OF ENGINEERING

(A Government Aided Autonomous Institution affiliated to Anna University)

MADURAI – 625 015

CURRICULUM AND DETAILED SYLLABI

For

M.Plan (Urban Planning) DEGREE PROGRAMME

For the students admitted from the academic year 2024-2025 onwards

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI- 625150

(A Govt. Aided, Autonomous Institution affiliated to Anna University)

THIAGARAJAR SCHOOL OF ENVIRONMENTAL DESIGN AND ARCHITECTURE

VISION

Impart excellence in architectural, planning and design education and nurture socially and environmentally responsible professionals.

MISSION

M1. Evolve and inculcate experiential and effective teaching learning processes.

M2.Strive to instill professional ethics and excellence through effective industry-institute collaboration.

M3. Lead and coordinate the profession's involvement in creating a socially and environmentally sustainable future.

M4. Engage in environmentally conscious and socially equitable research in Interdisciplinary fields.

M5. Promote the school into a centre of excellence through inter disciplinary associations and team work.

Programme Educational Objectives (PEO's)

PEO1. Ensure students acquire a comprehensive understanding of urban planning theories, principles, and methodologies, enabling them to analyze complex urban issues and develop effective planning strategies.

PEO2. Develop students' proficiency in state of the art spatial analysis techniques and tools, empowering them to analyse spatial data, model urban phenomena, and make informed decisions in urban planning and design processes.

PEO3. Equip students with the knowledge and skills needed to promote sustainability, resilience, social equity and livability in urban areas, emphasizing principles of sustainable

land use, transportation, infrastructure, and community development.

PEO4. Cultivate students' ability to engage with diverse stakeholders, including residents, policymakers, and community organizations, and to facilitate inclusive decision-making processes that prioritize community needs, equity, and social justice.

PEO5. Prepare graduates for successful careers in urban planning and related fields by fostering a commitment to ethical practice, lifelong learning, and the pursuit of innovation in addressing contemporary urban challenges.

PEO- Mission Mapping

PEO	M1	M2	M3	M4	M5
PEO1	S	L	L	L	L
PEO2	S	L	M	L	L
PEO3	S	M	S	L	L
PEO4	S	S	S	M	S
PEO5	S	S	S	S	M

L – Low; M – Medium; S – Strong

Programme Outcomes (PO's)

PO1. Graduates will demonstrate a thorough comprehension of urban planning theories, methodologies, and practices, enabling them to analyze and address complex urban challenges effectively.

PO2. Graduates will be proficient in utilizing advanced technology tools, such as Geographic Information Systems and urban modeling software, to support evidence-based decision-making and enhance sustainability in urban planning processes.

PO3. Graduates will possess the necessary skills to navigate governance structures, manage resources efficiently, and engage in financial planning for sustainable urban development projects, ensuring effective implementation and equitable outcomes.

PO4. Graduates will be advocates for environmental conservation and sustainability within urban planning, capable of integrating green infrastructure, nature-based solutions, and

renewable energy systems to enhance urban sustainability and resilience.

PO5. Graduates will demonstrate the ability to promote agency, industry, and interdisciplinary collaboration by fostering teamwork to effectively and ethically tackle complex urban challenges.

PEO-PO Mapping

	PO1	PO2	PO3	PO4	PO5
PEO1	S	L	L	L	L
PEO2	M	S	L	L	L
PEO3	M	S	S	S	M
PEO4	M	L	M	M	M
PEO5	S	L	L	S	S

L – Low; M – Medium; S – Strong

Credit Distribution

S.No	Category	Credit Distribution
A.	Professional Core Courses (PCC)	54
B	Compulsory Foundation Courses (CFC)	26
C.	Elective Foundation Courses (EFC)	4
D.	Programme Elective Courses (PE)	
E.	**Audit Courses (AC) (Not to be included in CGPA) - Mandatory**	-
	Minimum Number of Credits to be earned for the award of the degree	**84** (from A to D) and the successful completion of Mandatory Courses)

- All students have to undertake co-curricular and extra-curricular activities that include activities related to NCC, NSS, Sports, Professional Societies, participation in identified activities which promote the growth of Departments and the College.

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI- 625015

(A Govt. Aided, Autonomous Institution affiliated to Anna University)

THIAGARAJAR SCHOOL OF ENVIRONMENTAL DESIGN AND ARCHITECTURE

(For the candidates admitted from 2024-2025)

SCHEDULE OF COURSES

SEM	COMPULSORY FOUNDATION COURSES				ELECTIVE FOUNDATION COURSES/ PROGRAMME ELECTIVES	PROFESSIONAL CORE COURSES	TOTAL HOURS/ CREDITS
	THEORY			THEORY CUM STUDIO (Skill based)	THEORY	STUDIO	
I	25UP110 Evolution of Urban Planning (2)	24UP122 Economic Perspectives on Urban Development (2)	24UP131 Quantitative Analysis (2)	24UP140 Academic Writing for Planners (2)	-	24UP150 Urban Dynamics and Analysis (12)	20
II	25UP210 Sustainable and Resilient Development (2)	24UP220 Regional Planning and Analysis (2)		24UP230 Urban Information Systems (2)	****Credits are to be earned** - Elective Foundation Courses/ Program Electives that could be chosen are as in Annex1	24UP240 Urban Growth Planning (14)	20
III	24UP310 Urban Housing (2)	24UP320 Urban Administration And Management (2)		24UP330 Infrastructure Planning (2)	****Credits are to be earned** - Elective Foundation Courses/ Program Electives that could be chosen are as in Annex1	24UP340 Local Area Planning (14)	20
IV	24UP410 Financial Strategies for Urban Development (2)	24UP420 Project Management and Professional Practice (2)		24UP430 Transportation Planning (2)	-	24UP440 Planning Thesis (14)	20

Program Core Courses + Compulsory Foundation Courses = 54 + 26 =80 credits;

** Elective Foundation Courses (EFC) / Program Elective (PE) = 4 min credits;(Audit Courses will be offered from 3rd semester); TOTAL CREDITS = 84 CREDITS MINIMUM

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI- 625150

(A Govt. Aided, Autonomous Institution affiliated to Anna University)

THIAGARAJAR SCHOOL OF ENVIRONMENTAL DESIGN AND ARCHITECTURE

(For the candidates admitted from 20224-2025)

COURSES OF STUDY

Degree: M. Plan (Urban Planning)
Annexure – I

1. COMPULSORY FOUNDATION COURSES: **Total Credits to be earned: 26**

S.No	Course Code	Name of the Course	Number of Hours/ Week			Credit	Semester/ Prerequisite
			L	T	P		
THEORY							
1.	25UP110	Evolution of Urban Planning	2	-	-	2	I SEM & ABOVE
2.	24UP122	Economic Perspectives on Urban Development	2	-	-	2	I SEM & ABOVE
3.	24UP131	Quantitative Analysis	2	-	-	2	I SEM & ABOVE
4.	25UP210	Sustainable & Resilient Development	2	-	-	2	II SEM & ABOVE
5.	24UP220	Regional Planning and Analysis	2	-	-	2	II SEM & ABOVE
6.	24UP310	Urban Housing	2	-	-	2	III SEM & ABOVE
7.	24UP320	Urban Administration and Management	2	-	-	2	III SEM & ABOVE
8.	24UP410	Financial Strategies for Urban Development	2	-	-	2	IV SEM & ABOVE
9.	24UP420	Project Management and Professional Practice	2	-	-	2	IV SEM & ABOVE
THEORY CUM STUDIO (SKILL BASED)							
10.	24UP140	Academic Writing for Planners	1	-	1	2	I SEM & ABOVE
11.	24UP230	Urban Information Systems	1	-	1	2	II SEM & ABOVE
12.	24UP330	Infrastructure Planning	1	-	1	2	III SEM & ABOVE
13.	24UP430	Transportation Planning	1	-	1	2	IV SEM & ABOVE

2. PROGRAMME CORE COURSES: **Total Credits to be earned: 54**

S.No	Course Code	Name of the Course	Number of Hours/ Week			Credit	Semester/ Prerequisite
			L	T	P		
STUDIO							
14.	24UP150	Urban Dynamics and Analysis	-	4	12	12	I SEM
15.	24UP240	Urban Growth Planning	-	4	14	14	II SEM
16.	24UP340	Local Area Planning	-	4	14	14	III SEM
17.	24UP440	Planning Thesis	-	4	14	14	IV SEM

3. ELECTIVE FOUNDATION COURSES:

S.No	Course Code	Name of the Course	Number of Hours/ Week			Credit	Semester/ Prerequisite
			L	T	P		
THEORY							
18.	24UPFA0	Urban Design	2	-	-	2	II SEM & ABOVE
19.	24UPFC0	Urban Heritage Conservation	2	-	-	2	II SEM & ABOVE

4. PROGRAM ELECTIVE COURSES:

S.No	Course Code	Name of the Course	Number of Hours/ Week			Credit	Semester/ Prerequisite
			L	T	P		
THEORY							
20.	24UPPA0	Inclusive Planning	2	-	-	2	II SEM & ABOVE
21.	24UPPB0	Politics and Planning	2	-	-	2	II SEM & ABOVE

THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI- 625150

(A Govt. Aided, Autonomous Institution affiliated to Anna University)

THIAGARAJAR SCHOOL OF ENVIRONMENTAL DESIGN AND ARCHITECTURE

SCHEME OF EXAMINATIONS

(For the candidates admitted from 2024-2025 onwards

FIRST SEMESTER

S.No	Course Code	Name of the Course	Duration of Terminal Exam in Hrs.	Marks			Minimum Marks for Pass	
				Continuous Assessment *	Terminal Exam**	Max. Marks	Terminal Exam	Total
1	25UP110	Evolution of Urban Planning	3	40	60	100	45	50
2	24UP122	Economic Perspectives on Urban Development	3	40	60	100	45	50
3	24UP131	Quantitative Analysis	3	40	60	100	45	50
4	24UP140	Academic Writing for Planners**	-	50	50	100	45	50
5	24UP150	Evolution of Urban Development#	-	60	40	100	45	50

SECOND SEMESTER

S.No	Course Code	Name of the Course	Duration of Terminal Exam in Hrs.	Marks			Minimum Marks for Pass	
				Continuous Assessment *	Terminal Exam**	Max. Marks	Terminal Exam	Total
1	25UP210	Sustainable & Resilient Development	3	40	60	100	45	50
2	24UP220	Regional Planning and Analysis	3	40	60	100	45	50
3	24UP220	Urban Information Systems**	-	50	50	100	45	50
4	24UP240	Urban Growth Planning#	-	60	40	100	45	50

THIRD SEMESTER

S.No	Course Code	Name of the Course	Duration of Terminal Exam in Hrs.	Marks			Minimum Marks for Pass	
				Continuous Assessment*	Terminal Exam**	Max. Marks	Terminal Exam	Total
1	24UP310	Urban Housing	3	40	60	100	45	50
2	24UP320	Urban Administration and Management	3	40	60	100	45	50
3	24UP330	Infrastructure Planning **	-	50	50	100	45	50
4	24UP340	Local Area Planning#	-	60	40	100	45	50

FINAL SEMESTER

S.No	Course Code	Name of the Course	Duration of Terminal Exam in Hrs.	Marks			Minimum Marks for Pass	
				Continuous Assessment*	Terminal Exam**	Max. Marks	Terminal Exam	Total
1	24UP410	Financial Strategies for Urban Development	3	40	60	100	45	50
2	24UP420	Project Management and Professional Practice	3	40	60	100	45	50
3	24UP430	Transportation Planning**	-	50	50	100	45	50
4	24UP440	Planning Thesis#	-	60	40	100	45	50

Continuous Assessment evaluation pattern will differ from course to course

- For Theory courses Terminal Examination will be conducted for maximum marks of 100 and subsequently be reduced to 60 marks for the award of terminal examinationmarks.
- ** For Theory cum Studio Courses (Skill based) Terminal Examination in the form of Viva-voce will be conducted during the end semester for a maximum of 100 marks and subsequently be reduced to 50 marks for the award of terminal examination marks.
- # For Studio Courses Terminal Examination in the form of Viva-voce will be conducted during the end semester for a maximum of 100 marks and

subsequently be reducedto 40 marks for the award of terminal examination marks.

Terminal Examination will be conducted for maximum marks of 100 and subsequently bereduced as mentioned above for the award of terminal examination mark

ELECTIVE FOUNDATION COURSES

S.No	Course Code	Name of the Course	Duration of Terminal Exam in Hrs.	Marks			Minimum Marks for Pass	
				Continuous Assessment *	Terminal Exam**	Max. Marks	Terminal Exam	Total
1	24UPFA0	Urban Design	3	40	60	100	45	50
2	24UPFC0	Urban Heritage Conservation	3	40	60	100	45	50

PROGRAM ELECTIVE COURSES

S.No	Course Code	Name of the Course	Duration of Terminal Exam in Hrs.	Marks			Minimum Marks for Pass	
				Continuous Assessment *	Terminal Exam**	Max. Marks	Terminal Exam	Total
1	24UPPA0	Inclusive Planning	3	40	60	100	45	50
2	24UPPB0	Politics and Planning	3	40	60	100	45	50

Continuous Assessment evaluation pattern will differ from course to course

- For Theory courses Terminal Examination will be conducted for maximum marks of 100 and subsequently be reduced to 60 marks for the award of terminal examinationmarks.

Terminal Examination will be conducted for maximum marks of 100 and subsequently bereduced as mentioned above for the award of terminal examination mark

25UP110	EVOLUTION OF URBAN PLANNING	Category	L	T	P	Credit
		CFC	2	0	0	2

Preamble

This course aims at preparing the postgraduate students to analytically understand the planning ideas that have shaped and continue to shape cities and towns. In this course, students will learn to examine how various processes and factors — such as planning ideas or paradigms, economy, topography and climate, availability of natural resources, technological changes, cosmo /religious ideas, and social & political organizations have shaped certain kinds of built forms and settlement patterns over the period.

Prerequisite

Nil

Course Outcomes

Upon the successful completion of the course, students will be able to

CO Number	Course Outcome Statement	Weightage* ** in %
CO1	Observe how urban planning ideas over the years that have shaped and continue to shape cities and towns.	10 Understand
CO2	Recognize the geographical factors influencing the urban forms and settlement patterns.	10 Understand
CO3	Review the political factors influencing the urban forms and settlement pattern.	10 Understand
CO4	Investigate the impact of social and economic factors on the urbanforms.	20 Analyze
CO5	Relate the implications of statutory planning on urban growth and development.	20 Apply
CO6	Critically examine the city planning by using the lens of theories and concepts.	30 Analyze

Mapping with Programme Outcomes and Programme Specific Outcomes

Cos	PO1	PO2	PO3	PO4	PO5
CO1	S	L	M	M	L
CO2	S	L	M	M	L
CO3	S	L	M	M	L
CO4	S	L	M	M	L
CO5	S	L	M	M	L
CO6	S	L	M	M	L

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
CO1	20				20				10				10				10			
CO2	20				20				20				20				10			
CO3	20				20				20				20				10			
CO4		20				20				20				20					20	
CO5			20				20				30				30			20		
CO6																			30	

Syllabus

Importance of history and history of early cities-Introduction - Harappan cities and other early urban settlements — the ideas of citizenship, public institutions, typologies and urban form.**Central loci and city planning-**Early temple towns in India as urban settlements — planning ideas or paradigms, economy, topography and climate, availability of natural resources, technological changes, cosmo /religious ideas, and social & political organizations . Benares as the North Indian example and Madurai as South Indian example. European examples such as Sienna .**Fortified cities in History-**Medieval cities built aroundtrade routes in arid West — Medieval trading activities, silk route, trade and politicalpower, urban form analysis, settlement pattern. Fortified cities planned based on function and cosmo / religious abstract principles. (Jaisalmer, Shahjahanabad, Beijing, Damscus). City planning and urban design of Jaipur. Contrasting strategies of urban planning and infrastructure development of the cities of Paris and Barcelona beyond the confines of their fortified city limits during mid 19th century. Contributions of Baron Haussmann and Ildefons Cerdà.**Post Industrial urban world -**Poverty and urban slums in British industrial cities - response involving the clearance of slums and the development of public housing .The multifaceted dynamics of modernity encompass a range of factors, including political, economic, and cultural shifts. These include the advent of industrialization, the rise of assembly-line production methods, the standardization of goods, evolving dynamics between capital and labor, the emergence of new societal institutions, the concept of the democratic state, the influence of Enlightenment ideals, and innovations across various forms of modern art such as painting, music, literature, and cinema. Colonialism and its effects on the development of diverse urban typologies and forms. Examining colonial geographies, particularly under British rule in India and Singapore, discussion on specific themes inherent to colonial cities, emergence of distinct house forms and residential patterns due to segregation of colonizers from the colonized. **Grid city planning-**Manhattan — The Commissioners plan of 1811, zoning ordinance in NewYork city-1916, Repercussions of Great depression - proliferation of slums and ghettos in Manhattan during the early 20th century. Post World War II and its effect on urban form - Suburbanization and urban renewal efforts in New York city. Evolution of modernist urban planning in India : Planning philosophies of Chandigarh(Le Corbusier) , Bhubaneswar (OttoKönigsberger) and Gandhinagar (H.K. Mewada). **Evolution of statutory planning in India -**Exploring urban planning in postcolonial Indian cities - The first master plan of Delhi and Bombay as a case

study. Industrialization and urbanization in Indian cities, the role of masterplanning in shaping urban centers , Need to establish new urban hubs like New Bombay, and the transition from master plans to structure planning and regulatory frameworks in response to challenges and lessons learned. Normative vs informal city-The session will debate 'informality' as a lens to view Indian urbanism based on Ananya Roy's work on urbaninformality - urban informality, neoliberal urbanism, and the politics of urban development. **Changing paradigms in Urban Planning-** "Planet of slums" and 'Right to the city' - diverse paradigms crucial for shaping the future urban fabric.
Garden City, Geddisian Triad, Conurbation and Constellation, Modernism Concept by Le-Corbusier, Radburn, Green belt, Neighborhood Concept Theories of Ekistics, Land Use and Land Value, Theories by William Alan so, Concentric/ Sectorial/Mono/Poly Centric/Axial Theories and others

Learning Resources

1. Possehl, Gregory, "The Indus civilization: a contemporary perspective," Vistaar, New Delhi, 2002.
2. Osada, Toshiki Ed., "Indus civilization: text and context," Manohar Publishers, New Delhi, 2006.
3. Stirling, Henri, "Hindu India : from Khajuraho to the temple city of Madurai," BenediktTaschenVerlag GmbH, Koln, Italy,1998.
4. Michell, George Ed., "Banaras : the city revealed," Marg Pub., Bombay, 2005.
5. Goenka, Tanuj, "Wall as a metaphor in urban form", unpublished thesis, School of Architecture,
6. Sachdev, V., Tillotson, G. H. R., Sachdev, G., &Tillotson, V. (2002). Building Jaipur:the making of an Indian city. ReaktionBooks.
7. Wynn, M. (1979). Barcelona: planning and change 1854-1977. The Town Planning Review, 185-203.
8. Paccoud, A. (2016). Planning law, power, and practice: Haussmann in Paris (1853–1870). Planning perspectives, 31(3),341-361.
9. Marshall Bermann, All that is solid melts into air: The experience of modernity, 1982.
10. Peter Hall, Cities of tomorrow: The intellectual history of urban planning and design in 20 century, 2002.
11. Lewis Mumford and Bryan Turner, The culture of cities, 1938

Course Contents and Lecture Schedule

Module No.	Topic	No. of Hours	Course Outcome
1	**Importance of history and history of early cities**	**3**	
1.1	Harappan cities and other early urban settlements	1	CO1, CO2, CO4
1.2	Citizenships and Public institutions, Typologies and Urban forms	2	CO1& CO4
2	**Central loci and city planning**	**4**	

2.1	Early temple towns in India as urban settlements-Planning strategies, Street patterns, settlement patterns, Housing typologies,	1	CO1, CO2, CO5 & CO6
2.2	Comparative Analysis of Benares, Madurai, Sienna based on -Evolution, planning ideas or paradigms, economy, topography and climate, availability of natural resources, technological changes, cosmo /religious ideas, social & political organizations, urban layout and morphology, organization of streets, squares, residential areas, and marketplaces.	3	CO2, CO4 & CO6
3	**Fortified cities in History**	**5**	
3.1	Medieval cities built around trade routes in arid West — Medieval trading activities, silk route, trade and political power,urban form analysis, settlement pattern.	1	CO1,CO 2 & CO3
3.2	Fortified cities planned based on function and cosmo / religious abstract principles. (Jaisalmer, Shahjahanabad, Beijing, Damscus). City planning and urban design of Jaipur.	2	CO2, CO3, CO5
3.3	Contrasting strategies of urban planning and infrastructure development of the cities of Paris and Barcelona beyond the confines of their fortified city limits during mid-19th century. Contributions of Baron Haussmann and Ildefons Cerdà.	2	CO3&CO6
4	**Post Industrial urban world**	**5**	
4.1	Poverty and urban slums in British industrial cities - responseinvolving the clearance of slums and the development of public housing	1	CO2, CO3 & CO4
4.3	Colonialism and its effects on the development of diverse urban typologies and forms. Examining colonial geographies,particularly under British rule in India and Singapore.	1	CO3 & CO4
4.4	discussion on specific themes inherent to colonial cities, emergence of distinct house forms and residential patterns due to segregation of colonizers from the colonized. Case example of Mumbai, Delhi, Kolkata	3	CO3, CO 4 &CO6
5	**Grid city planning**	**4**	
5.1	Manhattan — The Commissioners plan of 1811, zoning ordinance in New York city-1916, Repercussions of Great depression - proliferation of slums and ghettos in Manhattan during the early 20th century. Post World War II and its effect on urban form - Suburbanization and urban renewal efforts in New York city.	2	CO3,CO 4 &CO6
5.2	Evolution of modernist urban planning in India: Planning philosophies of Chandigarh (Le Corbusier) , Bhubaneshwar	2	CO3&CO4

	(Otto Königsberger) and Gandhinagar (H.K. Mewada).		
6	**Evolution of statutory planning in India**	**4**	
6.1	**Masterplans to structure plans** Exploring urban planning in postcolonial Indian cities - The first master plan of Delhi and Bombay as a case study. Industrialization and urbanization in Indian cities, the role of master planning in shaping urban centers , Need to establish new urban hubs like New Bombay, and the transition from master plans to structure planning and regulatory frameworks in response to challenges and lessons learned.	2	CO1,CO 5 &CO6
6.2	**Normative vs informal city** Normative vs informal city-The session will debate 'informality' as a lens to view Indian urbanism based on Ananya Roy's work on urban informality - urban informality, neoliberal urbanism, and the politics of urban development.	1	CO5
7	**Theories and concepts**	**5**	
7.1	"Planet of slums" and 'Right to the city' - diverse paradigms crucial for shaping the future urban fabric.,	1	CO6
7.2	Garden City, Geddisian Triad, Conurbation and Constellation, Modernism Concept by Le-Corbusier, Radburn, Green belt, Neighborhood Concept	2	CO6
7.3	Theories of Ekistics, Land Use and Land Value, Theories by William Alan so, Concentric/ Sectorial/Mono/Poly Centric/Axial Theories and others	2	CO6

Course Designers:

1. Dr.Jinu Louishidha kitchley hodarch@tce.edu
2. S.M.Vidhyasankari smvsarch@tce.edu\
3. Gayathri Suresh gsharch@tce.edu

24UP122	**ECONOMIC PERSPECTIVES ON URBAN DEVELOPMENT**	Category	L	T	P	Credit
		CFC	2	0	0	2

Preamble

This course serves as an introduction to urban economics, focusing on fundamental economic principles and their application to urban planning and development. Through theoretical discussions and practical examples, students will explore topics such as trade-offs, comparative advantage, market systems, elasticity, taxation, consumer behaviour, supply and costs, market failures, and externalities. The course aims to equip students with the analytical tools necessary to understand and address economic challenges within urban environments.

Prerequisite

Nil

Course Outcomes

Upon the successful completion of the course, students will be able to

CO Number	Course Outcome Statement	Weightage*** in %
CO1	Describe the basic economic principles and their relevance to urban contexts.	10 Understand
CO2	Comprehend the dynamics of market equilibrium, determinants of supply and demand, and the concept of elasticity.	10 Understand
CO3	Discover the role of government intervention in competitive markets and its welfare	20 Analyze
CO4	Adapt economic concepts such as consumer behavior, budget constraints, and housing demand to analyze urban housing markets.	20 Apply
CO5	Analyze market failures and corrective strategies in urban contexts.	20 Analyze
CO6	Evaluate the economic principles to address urban resource allocation.	20 Evaluate

Mapping with Programme Outcomes and Programme Specific Outcomes

Cos	PO1	PO2	PO3	PO4	PO5
CO1	S	S	M	M	L
CO2	S	S	M	M	M
CO3	M	M	S	S	M
CO4	S	M	M	S	M
CO5	M	M	S	M	S
CO6	L	M	M	M	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
CO1	30				30				10				10				10			
CO2	20				20				10				10				10			
CO3			20				20				10				10				20	
CO4		10				10				20				20				20		
CO5			10				10				25				25				20	
CO6				10				10				25				25				20

Syllabus

Economic Principles in Urban Context-Introduction to basic economic concepts and their application in urban settings. Trade-offs, comparative advantage, and the market system. The circular flow of income and property rights in urban economies. **Market Dynamics and Equilibrium-**Analysis of individual and market demand, the Law of Demand, and shifts in demand curves. Supply side of the market, market equilibrium, and the elimination of surpluses and shortages. Elasticity of demand and supply, determinants of price elasticity, and revenue relationships. **Competitive Markets and Government Intervention-** Examination of consumer and producer surplus in competitive markets. Economic impact of taxes, tax incidence, price ceilings, floors, and black markets. Government intervention in urban markets and its consequences. **Consumer Behaviour and Housing Demand-** Exploration of consumer preferences, indifference curves, and budget constraints. Analysis of housing demand and housing subsidies in urban economies. **Supply, Costs, and Market Failures-**Theory of supply and costs, including production dynamics and road congestion pricing. Market failures, externalities, public goods, and strategies for correcting inefficiencies. Application of economic principles to urban issues such as transportation and crime.

Learning Resources

1. "Urban Economics" by Arthur O'Sullivan, Stephen J. Sheffrin, and Stephen J. Perez.
2. "Principles of Economics" by N. Gregory Mankiw.
3. "Urban and Regional Economics" by Philip McCann.
4. "Housing Economics and Public Policy" by William M. Rohe, Harry L. Smith, and George W. McCarthy
5. "The Economics of Public Issues" by Roger LeRoy Miller, Daniel K. Benjamin, and Douglass C. North.
6. "Urban Economics and Real Estate: Theory and Policy" by John F. McDonald and Daniel P. McMillen (3rd Edition, 2020)
7. "Microeconomics" by Robert S. Pindyck and Daniel L. Rubinfeld (9th Edition, 2021)

Course Contents and Lecture Schedule

Module No.	Topic	No. of Hours	Course Outcome
1	**Economic Principles in Urban Context:**	**6**	
1.1	Introduction to basic economic concepts and their application in urban settings.	2	CO1
1.2	Trade-offs, comparative advantage, and the market system.	2	CO1 & CO2
1.3	The circular flow of income and property rights in urban economies.	2	CO2 & CO3
2	**Market Dynamics and Equilibrium:**	**6**	
2.1	Analysis of individual and market demand, the Law of Demand, and shifts in demand curves.	2	CO2
2.2	Supply side of the market, market equilibrium, and the elimination of surpluses and shortages.	2	CO4 & CO6
2.3	Elasticity of demand and supply, determinants of price elasticity, and revenue relationships.	2	CO4 & CO5
3	**Competitive Markets and Government Intervention**	**6**	
3.1	Examination of consumer and producer surplus in competitive markets.	3	CO3
3.2	Economic impact of taxes, tax incidence, price ceilings, floors, and black markets. Government intervention in urban markets and its consequences.	3	CO4 & CO5
4	**Consumer Behaviour and Housing Demand**	**6**	
4.1	Exploration of consumer preferences, indifference curves, and budget constraints.	3	CO5 & CO6
4.2	Analysis of housing demand and housing subsidies in urban economies.	3	CO4 & CO6
5	**Supply, Costs, and Market Failures**	**6**	
5.1	Theory of supply and costs, including production dynamics and road congestion pricing.	3	CO2 & CO4
5.2	Market failures, externalities, public goods, and strategies for correcting inefficiencies. Application of economic principles to urban issues such as transportation and crime.	3	CO3 & CO4
	Total Hours	30	

Assignment Plan Samples:

Module No.	Topic	Course Outcome
1	Assessing understanding of basic economic principles and their application to urban contexts.	CO1
2	Analysis of urban economic issues and policy implications, with a focus on real-world examples and case studies.	CO3 & CO4
3.	Group Projects: Application of economic concepts to urban planning scenarios, including the development of policy recommendations and solutions.	CO6

Course Designers:

1. M.Sindhuja crissindhu@tce.edu
2. Pavalavelsh P ppharch@tce.edu
3. Pasupathy K B kbparch@tce.edu
4. Gayathri Suresh gsharch@Tce.edu

24UP131	QUANTITATIVE ANALYSIS	Category	L	T	P	Credit
		CFC	2	0	0	2

Preamble

This course offers students a comprehensive introduction to quantitative methods essential for urban planning. It balances theoretical foundations with applied techniques, combining lectures and hands-on exercises. This course focuses on exploratory data analysis to interpret urban phenomena and also delves into analyzing relationships among observations, enabling predictions and forecasting. This course aims to provide a solid foundation for understanding and applying statistics in urban planning, aids in acquiring new skills and prepares for advanced studies. Each module of this course combines theoretical concepts with practical applications to equip students with the necessary skills for data- driven decision-making in urban environments.

Prerequisite

Nil

Course Outcomes

COs	Course Outcome Statement	Weightage in %
CO1	Recognize the pivotal role of data in interpreting and addressing urban complexities and challenges	10% (Understand)
CO2	Acquire knowledge of various quantitative techniques and their applications in urban planning	10% (Understand)
CO3	Develop critical thinking on descriptive analysis and its interpretation	20% (Apply)
CO4	Enhance skills to evaluate and question statistical analyses and interpretations effectively	20% (Apply)
CO5	Comprehend advanced statistical and analytical techniques relevant to urban planning.	20% (Apply)
CO6	Analyze techniques of data projections and forecast to real world urban scenarios and evaluate their effectiveness.	20% (Analyze)

Mapping with Programme Outcomes and Programme Specific Outcomes

Cos	PO1	PO2	PO3	PO4	PO5
CO1	S	L	S	S	S
CO2	S	S	M	S	L
CO3	S	M	M	L	L
CO4	S	S	M	L	L
CO5	S	L	L	L	S
CO6	S	S	L	L	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
CO1	30				30				10				10				10			
CO2	30				30				10				10				10			
CO3		10				10			10				10					20		
CO4		10				10			20				20					20		
CO5		10				10				20				20				20		
CO6			10				10				30				30				20	

Syllabus

Introduction to Quantitative Methods in Urban Studies and Planning - Overview of quantitative methods - Importance of quantitative analysis in urban studies and planning -

Introduction to key statistical concepts and terminology - **Survey Design** – Principles of survey design - Types of surveys in urban studies and planning- Sampling techniques and sample size determination - **Describing the World** - Descriptive statistics: measures of central tendency and dispersion - Data visualization techniques: graphs, charts, and maps - Interpretation of descriptive statistics in urban contexts - Introduction to multicriteria decision-making frameworks - Case studies - Development and interpretation of indices and ranks - **Exploring Relationships Among Variables** - introduction to regression analysis - Understanding the relationship between urban variables - Simple linear regression - Basics of Linear regression, Assumptions of Linear regression, Practical applications of simple linear regression - Interpretation of regression coefficients - Multi criteria decision making - **Projections and Forecast** - Techniques for data projections and forecast - Evaluation of models and techniques.

Learning Resources

1. Diez, D. M., Barr, C. D., & Çetinkaya-Rundel, M. (2019). OpenIntro Statistics (4th ed.)
2. Best, J. (2012). Damned Lies and Statistics: Untangling Numbers from the Media, Politicians, and Activists.
3. Ewing, R. H., & Park, K. (Eds.). (2020). Basic Quantitative Research Methods for Urban Planners.
4. Best J. Damned Lies and Statistics: Untangling Numbers from the Media, Politicians, and Activists. University of California Press; 2012.

Course Contents and Lecture Schedule

Module No.	Topic	No. of Hours	Course Outcome
1	**Introduction to Quantitative Methods in Urban Studies and Planning**	4	

1.1	Overview of quantitative methods - Importance of quantitative analysis in urban studies and planning	2	CO1/CO2
1.2	Introduction to key statistical concepts and terminology	2	CO1/CO2
2	**Survey Design**	**4**	
2.1	Principles of Survey design	1	CO2
Ex:1 Sample Qn	*Design a sample survey to assess public transportation preferences in an urban area. Include principles of survey design, types of studies, and sampling techniques.*		CO1 & CO2
2.2	Types of studies in Urban design and planning	1	CO2
2.3	Sampling techniques and sampling size determination	2	CO3, CO6
3	**Describing the world**	**10**	
3.1	Descriptive statistics: measures of central tendency and dispersion	2	CO3
3.2	Data visualization techniques: graphs, charts, and maps	2	CO3/CO1
3.3	Interpretation of descriptive statistics in urban contexts	2	CO4
3.4	Introduction to multicriteria decision- making frameworks - Case studies	2	CO4/CO5
3.5	Development and interpretation of indices and ranks	2	CO4/CO5
Ex:2 Sample Qn	Develop a multicriteria decision-making framework to prioritize urban development projects. Include case studies and development of indices and ranks.		CO3 & CO4
4	**Exploring relationships among variables**	**8**	
4.1	Introduction to regression analysis - Understanding the relationship between variables	2	CO5
4.2	Simple linear regression - Basics of Linear regression, Assumptions of Linear regression, Practical applications of simple linear regression	4	CO5/CO2
4.3	Interpretation of regression coefficients - Multi criteria decision making	2	CO5/CO 6
Ex:3 Sample Qn	Perform a simple linear regression analysis using a dataset of urban housing prices and square footage. Interpret the regression coefficients and discuss the relationship between the variables.		CO5 & CO6
5	**Projections and Forecast**	**4**	
5.1	Techniques for projections and forecast	2	CO6
5.2	Evaluation of models and techniques	2	CO6
Ex:4 Sample Qn	Evaluate the effectiveness of a predictive model used to forecast		CO6
	Total hours	30	

Course Designers:

1. R Meena Kumari rmiarch@tce.edu
2. Lekshmi Shunnma M mlsarch@tce.edu
3. Gayathri Suresh gsharch@tce.edu

24UP140	ACADEMIC WRITING FOR PLANNERS	Category	L	T	P	Credit
		CFC	1	-	1	2

Preamble

This course aims at developing in students the ability to communicate effectively and persuasively to a wide range of audience. The students can identify and adopt strategies which will enable them to present well-substantiated descriptions and persuasive arguments in both oral and written forms. The process involves analysing and creating effective, persuasive writing and oral communication.

Prerequisite

Nil

Course Outcomes

On the successful completion of the course students will be able to

CO Number	Course Outcome Statement	Weightage*** in %
CO1	Comprehend urban planning writing for designers, including reading techniques and various styles of writing.	Understand 10%
CO2	Exhibit proficiency in descriptive writing, including portraying impressions, and utilizing research methods.	Understand 10%
CO3	Display mastery in argumentative writing, including identification and integrating argumentative elements.	Understand 10%
CO4	Demonstrate competence in persuasive writing, involving articulation of viewpoints, and mapping arguments.	Apply 20%
CO5	Adapt to ethical research practices, referencing, articulating causality, and integrating feedback	Apply 20%
CO6	Organise and write clear, concise, effective reports and analyses using linguistic and textual conventions.	Analyse 30%

*** Weightage depends on Bloom's Level, number of contact hours,

CO Mapping with CDIO Curriculum Framework

CO #	TCE Proficiency Scale	Learning Domain Level			CDIO Curricular Components (X.Y.Z)
		Cognitive	Affective	Psychomotor	
CO1	TPS2	Understand	Respond	Guided Response	2.2.2, 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.4.3, 2.4.4, 2.4.6, 2.5.1, 2.5.4, 3.2.1, 3.2.2, 3.2.3, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.6

CO2	TPS2	Understand	Respond	Guided Response	2.2.2, 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.4.3, 2.4.4, 2.4.6, 2.5.1, 2.5.4, 3.1.1, 3.1.2, 3.1.5, 3.2.1, 3.2.2, 3.2.3, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.6
CO3	TPS2	Understand	Respond	Guided Response	2.2.2, 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.4.3, 2.4.4, 2.4.6, 2.5.1, 2.5.4, 3.1.1, 3.1.2, 3.1.5, 3.2.1, 3.2.2, 3.2.3, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.6
CO4	TPS3	Apply	Value	Mechanism	2.2.2, 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.4.3, 2.4.4, 2.4.6, 2.5.1, 2.5.4, 3.1.1, 3.1.2, 3.1.5, 3.2.1, 3.2.2, 3.2.3, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.6
CO5	TPS3	Apply	Value	Mechanism	2.2.2, 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.4.3, 2.4.4, 2.4.6, 2.5.1, 2.5.4, 3.1.1, 3.1.2, 3.1.5, 3.2.1, 3.2.2, 3.2.3, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.6
CO6	TPS4	Analyse	Organise	Complex Overt Responses	2.2.2, 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.4.3, 2.4.4, 2.4.6, 2.5.1, 2.5.4, 3.1.1, 3.1.2, 3.1.5, 3.2.1, 3.2.2, 3.2.3, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5, 4.1.6

Mapping with Programme Outcomes and Programme Specific Outcomes

Cos	PO1	PO2	PO3	PO4	PO5	PEO1	PEO2	PEO3	PEO4	PEO5
CO1	M	L	M	M	M	M	L	M	M	M
CO2	M	L	M	M	M	M	L	M	M	M
CO3	M	L	M	M	M	M	L	M	M	M
CO4	M	L	M	M	M	M	L	M	M	M
CO5	M	L	M	M	M	M	L	M	M	M
CO6	M	L	M	M	M	M	L	M	M	M

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

Cognitive Levels	**Assignment**			**Terminal Examination (Viva-Voce)**
	1	2	3	
Remember	-	-	-	-

Understand	30	-	-	30
Apply	-	40	-	40
Analyse	-	-	30	30
Evaluate	-	-		-
Create	-	-	-	-

Assessment Pattern: Psychomotor

Psychomotor Skill	Miniproject /Assignment/Practical Component
Perception	-
Set	-
Guided Response	30
Mechanism	40
Complex Overt Responses	30
Adaptation	-
Origination	-

Sample Questions for Course Outcome Assessment**

** (2 to 3 at the cognitive level of course outcome)

Course Outcome 1(CO1):

1. What are the techniques of reading through literary works?
2. What are the different styles of writing?
3. Identify your focus area for a specific urban planning issue.

Course Outcome 2(CO2):

1. What is descriptive writing and provides the first impression on a specific *topic*?
2. Write about the historical evolution of urban areas.
3. What are the various research methods applicable for urban planning?

Course Outcome 3(CO3):

1. Identify arguments from the literary case study.
2. Present arguments and counter arguments on urban planning issues.
3. Identify and adapt a theoretical framework for argumentative writing.

Course Outcome 4 (CO4):

1. Articulate your standpoint or opinion about a specific urban planning issue
2. Apply any theoretical framework for preparing a persuasive report.
3. Develop an organised trajectory of arguments for persuasive writing.

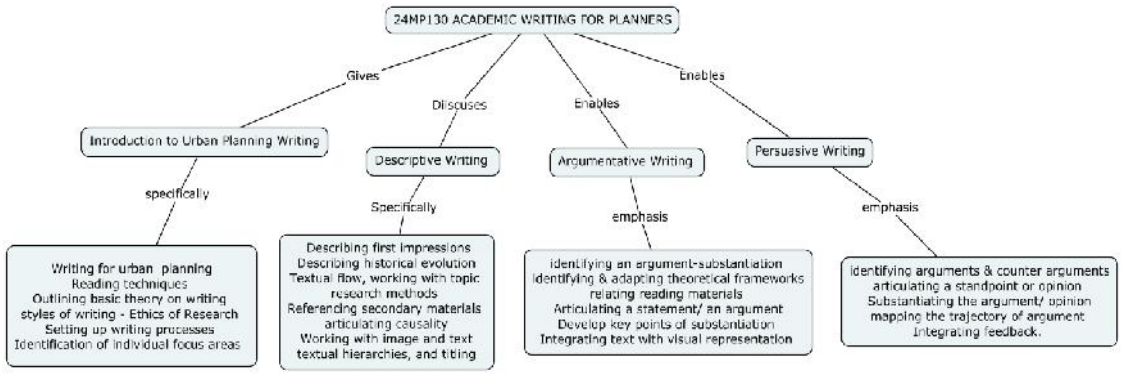
Course Outcome 5 (CO5):

1. What are the different referencing styles?
2. Why it is important to cite references in research.
3. Write about the significance of receiving and integrating feedbacks

Course Outcome 6(CO6):

1. Write a well organised descriptive essay on an urban planning topic
2. Present effective arguments for or against a specific policy recommendation.
3. Articulate a clear standpoint for a relevant urban planning issue.

Concept Map



Syllabus

Introductionto Urban Planning Writing- Understanding urban planning writing for designers – Reading techniques - Outlining basic theory on writing and styles of writing – Working with titling and textual hierarchies -Ethics of Research - Setting up writing processes - Identification of individual focus areas - **Descriptive Writing** - Describing first impressions and historical evolution - Articulating causality and sequence – Anecdotes and personal narrative informing analysis -Working with image and text, textual hierarchies, and titling - Textual flow, working with topic sentences/key ideas - Research methods - Identification of primary and secondary sources of information - Referencing secondary materials - Framing theoretical/ definitional understanding –Emphasizing focus areas (Textually and visually)- Writing of executive summary - **Argumentative Writing** - identifying an argument-substantiation - identifying and adapting theoretical frameworks; relating reading materials - Articulating a statement/ an argument - Develop key points of substantiation - Integrating text with visual representation - **Persuasive Writing** – research towards identifying arguments and counter arguments - theoretical frameworks - articulating a standpoint or opinion - Substantiating the argument/ opinion - mapping the trajectory of argument - Integrating opinion and feedback – tailoring texts to readership.

Learning Resources

1. "The Art of Description: World into Word" by Mark Doty
2. "Descriptive Writing" by Janine Rider
3. "The Elements of Style" by William Strunk Jr. and E.B. White
4. "Describing Places" by Michael P. Dyer
5. "They Say/I Say: The Moves That Matter in Academic Writing" by Gerald Graff and Cathy Birkenstein
6. "The Craft of Research" by Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams
7. "Writing Arguments: A Rhetoric with Readings" by John D. Ramage, John C. Bean, and June Johnson
8. "Thank You for Arguing: What Aristotle, Lincoln, and Homer Simpson Can Teach Us About the Art of Persuasion" by Jay Heinrichs
9. "Influence: The Psychology of Persuasion" by Robert B. Cialdini
10. "The Copywriter's Handbook: A Step-by-Step Guide to Writing Copy That Sells" by Robert W. Bly
11. "Words That Work: It's Not What You Say, It's What People Hear" by Frank Luntz
12. "Made to Stick: Why Some Ideas Survive and Others Die" by Chip Heath and Dan Heath

Course Contents and Lecture Schedule

Module No.	Topic	No. of Hours	Course Outcome
1.	**Introduction to Urban Planning Writing-**	**6**	
1.1	Understanding urban planning writing for designers – Reading Techniques *Exercise: Jotting down points*	2	CO1
1.2	Outlining basic theory on writing and styles of writing – Ethics of Research *Exercise: Working with titling and textual hierarchies.*	2	CO1, CO5
1.3	Setting up writing processes - Identification of individual focus areas *Introduction to Assignment 1 on Descriptive Writing.*	2	CO1
2.	**Descriptive Writing**	**8**	
2.1	Describing first impressions and historical evolution- Articulating causality and sequence – Anecdotes and personal narrative informing analysis. *Exercise: Working with images and text*	3	CO2
2.2	Research methods -Identification of primary and secondary sources of information. Referencing secondary materials *Exercise: Textual flow, working with topic sentences/key ideas*	2	CO2, CO5
2.3	Framing theoretical/ definitional understanding – Emphasizing focus areas (Textually and visually)- Writing of executive summary *Introduction to Assignment 2 on Argumentative Writing.*	3	CO2, CO5, CO6
3.	**Argumentative Writing**	**8**	
3.1	Identifying an argument-substantiation- identifying and adapting theoretical frameworks *Exercise Identify key points of arguments and substantiation from literary work.*	4	CO3
3.2	Relating reading materials - Articulating a statement/ an argument -Develop key points of substantiation - Integrating text with visual representation. *Exercise: working with text to reference and compliment visual representation.* *Introduction to Assignment 3 on Persuasive Writing.*	4	CO3, CO5, CO6
4.	**Persuasive Writing**	**8**	
4.1	Research towards identifying arguments and counter arguments, theoretical frameworks *Exercise: Mapping the trajectory of an argument.*	4	CO4
4.2	Articulating a standpoint or opinion - Substantiating the argument/ opinion-Integrating Opinion and feedback *Exercise: Tailoring texts to readership*	4	CO4, CO5, CO6

Assignment Plan:

Module No.	Topic	Course Outcome
1	Descriptive Writing - essay on a chosen urban space, focusing on its architectural features, functionality, and social significance	CO2, CO5, CO6
2	Argumentative Writing - choose an urban planning policy issue and present an argument for or against a specific policy recommendation.	CO3, CO5, CO6
3.	Persuasive Writing - choose a relevant urban planning issue and articulate a clear standpoint	CO4, CO5, CO6

Additional Resources for content delivery and assessment planning:

1. Literary Works: such as "The Great Gatsby" by F. Scott Fitzgerald; "Dubliners" by James Joyce; "Invisible Cities" by Italo Calvino; "The Jungle" by Upton Sinclair; "Neuromancer" by William Gibson; "Mrs. Dalloway" by Virginia Woolf; "In the Skin of a Lion" by Michael Ondaatje; "The Hunger Games" by Suzanne Collins
2. Academic journals such as "Urban Studies," "Journal of Urban Planning and Development," and "Cities."
3. Websites like The Atlantic's CityLab, Strong Towns, and Planetizen for contemporary urban issues and analysis.
4. Documentaries and films depicting urban life and challenges, such as "The Human Scale," "Citizen Jane: Battle for the City," and "Urbanized."
5. Podcasts like "99% Invisible," "The Urbanist," and "City Talks" for discussions on urban planning, design, and development.

Course Designers:

1. Piraiarasi.C cparch@tce.edu
2. R. Jeyabalaji ajarch@tce.edu
3. A. Tamilselvi tamilselvi@tce.edu
4. G. Jeya Jeevakani gjjeng@tce.edu
5. M. Sarppa Raje mseeng@tce.edu

24UP150	URBAN DYNAMICS AND ANALYSIS	Category	L	T	P	Credit
		PCC	0	4	12	12

Preamble

This Foundation studio is aimed to develop an understanding of a city and equip students with conceptual, methodological, analytical, and communication skills necessary for becoming a professional urbanist. This studio will focus on an evidence based approach for framing and analyzing complex urban situations and problems. The students will be employed with mapping, observing, representational and analytical abilities to carefully understand the needs of people, conflicting interests, financial or administrative constraints

Prerequisite

Nil

Course Outcomes

On the successful completion of the course students will be able to

COs	Course Outcome Statement	Weightage*** in %
CO1	Demonstrate the skills of mapping, measuring and representing the complexities of the built environment	Apply (20%)
CO2	Interpret the key concepts of urban planning/design through visualizations and analysis of the data collected	Apply (10%)
CO3	Identify and navigate conflicting interests within urban contexts, including those related to land use, resource allocation, governance, socio-cultural, economic, and environmental dynamics.	Analyze (10%)
CO4	Explore various methods of systematic data gathering with quantitative and qualitative analytical methods	Analyze (20%)
CO5	Critically assess the needs of diverse urban populations, considering factors such as demographics, culture, and socio-economic status through ethical engagement with the communities of the precinct	Analyze (30%)
CO6	Communicate findings and recommendations clearly and persuasively through written reports, oral presentations, and visual representations.	Apply (10%)

CO Mapping with CDIO Curriculum Framework

CO #	TCE Proficiency Scale	Learning Domain Level			CDIO Curricular Components (X.Y.Z)
		Cognitive	Affective	Psychomotor	
CO1	TPS3	Apply	Value	Mechanism	.2,1.3, 2.2.2, 2.2.3, 2.3, 2.4, 2.5.1, 2.5.4, 3.1.5, 4.1.4, 4.1.5, 4.3.2, 4.4.1, 4.4.3, 4.4.4, 4.5.5, 4.6.3, 4.6.5
CO2	TPS3	Apply	Value	Mechanism	1.2, 1.3, 2.4.3, 2.4.5, 3.2.5
CO3	TPS4	Analyze	Organize	Complex Overt Responses	1.2, 1.3, 2.2.3, 2.3, 2.4.4,

CO4	TPS4	Analyze	Organize	Complex Overt Responses	4.1.4, 4.1.5, 4.6.5
CO5	TPS4	Analyze	Organize	Complex Overt Responses	
CO6	TPS3	Apply	Value	Mechanism	1.2, 1.3, 2.4.3, 2.4.5, 3.2.5

Mapping with Programme Outcomes and Programme Specific Outcomes

Cos	PO1	PO2	PO3	PO4	PO5
CO1	S	L	L	M	S
CO2	S	S	S	S	S
CO3	S	S	L	L	L
CO4	S	S	L	M	L
CO5	S	S	S	L	S
CO6	S	L	L	L	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

Cognitive Levels	Model examination	Terminal Examination
Understand		
Apply	40	40
Analyze	60	60
Evaluate		
Create		

Assessment Pattern: Psychomotor

Psychomotor Skill	Mini project /Assignment/Practical Component
Guided Response	
Mechanism	40
Complex Overt Responses	60
Adaptation	
Origination	

Syllabus

Students should expect to learn and apply basic principles of how cities work, and engage in key debates in the profession as part of this studio. Students will be assigned a site / precinct of a city to analyse and learn, in which they will be exposed to different layers of a city and asked to perform an anatomical study of the context. Further delving into the ethical engagement with the community living in the precinct, their choices of housing, jobs and mobility are to be brought down to the paper. Finally, the impacts of governance and financial aspects of the precinct are measured and reasoned out.

Along with this the students will also be equipped with the knowledge of the GIS software and theories of urban planning and design as a part of the studio.

Learning Resources

1. Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications, 5384.
2. ITDP, E. (2011). Better Streets, Better Cities: A Guide to Street Design in Urban India. Ahmedabad: ITDP.
3. IUT (2012). Design of Urban roads: code of practice. IUT
4. UDPFI guidelines, http://cpheeo.nic.in/ : water supply, sewerage, solid waste management.
5. Whyte, W. H. (1980).The social life of small urban spaces.
6. Whyte, W. H. (2012). City: Rediscovering the center. University of Pennsylvania Press.
7. Gehl, J. (2011). Life between buildings: using public space. Island Press.
8. Gehl, J., &Svarre, B. (2013). How to study public life. Island Press.
9. Gehl, J. (2013). Cities for people. Island press.
10. Coyle, S. J. (2011). Sustainable and resilient communities: A comprehensive action plan for towns, cities, and regions
11. (Vol. 15). John Wiley & Sons.
12. Wise, S. (2009), The Blackest Streets: The Life and Death of a Victorian Slum: Vintage Books
13. Campbell, S., &Fainstein, S. S. (2003).Readings in Planning Theory (Studies in Urban & Social Change).
14. Jacobs, J. (1961), The Death and Life of Great American Cities: Vintage
15. Why complexity improves the quality of city life? https://lsecities.net/media/objects/articles/whycomplexityimprovesthequalityofcity-life/engb/
16. Richard Sennett, Nobody likes a city that's too smart https://www.theguardian.com/commentisfree/2012/dec/04/smartcityriosongdo-masdar
17. Speck, J. (2013). Walkable city: How downtown can save America, one step at a time. Macmillan.
18. Urban street design guide, National Association of City Transportation Officials.
19. Gillham, B. (2000). Case study research methods. Bloomsbury Publishing, 5979.
20. Walker, J. (2012). Human transit: How clearer thinking about public transit can enrich our communities and our lives. Island Press.

Course Contents and Lecture Schedule

Module No.		Topic	No. of Hours	Course Outcome
Week 1	Lecture	Introduction to urban planning and ways of reading an urban environment	2	CO1
	Lab	Introduction to GIS – User interface and application	6	
	Site and studio	Observing and mapping the precinct	8	
Week 2	Lab	Understanding of Projection and co-ordinate system – Geo referencing of maps	7	CO1
	Studio	History and urban transformation	9	CO3
Week 3	Theory	Theories on urban streets, their elements, organisation and case studies from different contexts	2	CO3

	Lab	Topology generation and attribute data	7	CO1
	Site and studio	Streets, nodes, networks	7	CO2
Week 4 & 5	Theory	Lecture on master plans, and related map repository – case example of a city	4	CO2
	Lab	Spatial analysis in QGIS – Mapping service, density mapping,	14	CO1
	Site and studio	Public Realm, Built form and typologies	14	CO5
Week 7 &8	Theory	Introduction to transportation and management system	2	CO4
	Lab	Network analysis in GIS, OD Mapping,	20	CO1
	Site and studio	Public Transport Accessibility	10	CO4
Week 9	Theory	Water management systems and quantification of data	5	CO5
	studio	Municipal services – water and sanitation	11	CO4
REVIEW I				
Week 10	Theory	Introduction on real estate; its process and impact on planning and land economy	4	CO4
	Lab	Raster and vector analysis on land use and land cover data	8	CO1
	Studio	Land use and land markets	4	CO5
Week 11	Site & Studio	Group discussion with the communities on their choices on housing	6	CO6
	Site	Household survey	6	CO6
Week 12	Site & Studio	Group discussion with the communities on their choices on mobility	8	CO6
	Site	Household survey	8	CO6
Week 13	Theory	A study on Governance modules and system	2	CO5
	Site & Studio	Group discussion with the communities on their choices on their jobs and livelihood	8	CO6
	Studio	Municipal governance and finance	6	CO4
REVIEW II – FINAL PORTFOLIO				

Course Designers:

1. Prof.Dr. Jinu Louishida Kitchley - hodarch@tce.edu
2. Prof. R. Meena Kumari - rmiarch@tce.edu
3. Prof. G.Vaishali - gviarch@tce.edu

25UP210	SUSTAINABLE AND RESILIENT DEVELOPMENT

Category	L	T	P	Credit
CFC	2	0	0	2

Preamble

This course is designed to develop an understanding of (a) the key concepts of sustainable development and climate change (b) how environmental resources are impacted by development and vice versa; (c) what are various strategies to minimize, mitigate, manage and adapt to the immediate and long-term environmental impacts, (d) what kind of tools are available for planning and implementing sustainable and resilient development.

Prerequisite

NIL

Course Outcomes

On the successful completion of the course students will be able to

CO Number	Course Outcome Statement	Weightage*** in %
CO1	Interpret the concepts and principles of Sustainable development	Understand 10%
CO2	Recognising the pivotal points in history which mark the grounds for international sustainability actions	Understand 10%
CO3	Comprehend the concepts of sustainable water, waste and energy management systems	Understand 10%
CO4	Relate to the role of Land use planning and zoning regulations in Sustainability	Understand 10%
CO5	Investigate the case examples implemented	Analyse 20%
CO6	Understand the concepts of mitigation, adaptation and resilience to analyse the climate action interventions and examine its impact on Disasters	Analyse 40%

Mapping with Programme Outcomes and Programme Specific Outcomes

COS	PO1	PO2	PO3	PO4	PO5
CO1	L	L	L	S	L
CO2	S	L	L	S	L
CO3	L	M	L	S	M
CO4	S	L	S	S	M
CO5	S	S	M	S	L
CO6	L	M	M	S	M

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
CO1	20				20				20				20				10			
CO2	20				20				20				20				10			

CO3	20				20				10				10				10			
CO4	20				20				10				10				10			
CO5			20				20				40				40				20	
CO6																			40	

Syllabus

Introduction to Sustainable Development Concepts and Principles – Evolution of Sustainable Development – Three Pillars of Sustainability – UN Sustainability Framework –
Concept of Sustainable Cities and National Mission for Sustainable Habitats.

Sustainable Management of Water resources Surface and Ground Water Resources – Concepts of Blue-green infrastructure – Role of Planners in Conservation and Sustainable management of Urban Water Bodies

Sustainable Waste Management Sustainable Liquid waste management – Sustainable Solid waste management

Sustainable Energy Management Renewable Energy Resources; Energy Transition - Blue Green infrastructure, Energy from Waste, Circular energy systems for energy efficiency - Sustainable transportation systems and Role of Planners in Energy Management

Land use Planning and Legal Mandates Land Use Planning and Sustainability – role of zoning and development control regulations in ensuring sustainability – Environmental and Social Impact Assessment and Environmental Management plans – Environmental clearance processes for planning and building approvals

Introduction to climate change: Mitigation, Adaptation and Urban Resilience Science of Global warming and climate change – Emergence of international agenda and institutions – future climate outlooks – India's position in Climate change – Climate Action Plan – Understanding Vulnerability, Mitigation, Adaptation and Resilience in Spatial Planning – Multisectoral and Cross sectoral approaches – International Case Studies – Disasters: Concepts; Hazard, Vulnerability, Risk, Capacity; Disaster Management: Definition, Scope, Objectives, Elements, Terms, Recent Initiatives at International , National and State Levels, Causes and Consequence of Disaster- Natural and Man Made disasters – Disaster risk reduction, Pre-Disaster Management measures, Post Disaster Management Measures, Disaster Management Plan

Course Contents and Lecture Schedule

Module No.	Topic	No. of Hours	Course Outcome
1.	**Introduction to Sustainable Development**	**4**	
1.1	Concepts and Principles: Contemporary development and environmental challenges	1	CO1, CO2
1.2	Evolution of Sustainable Development: from Stockholm declaration, Rio Earth Summit and Brundtland commission, Millenium Development Goals, Role of UN Habitat, UNEP and UNDP on SDGs	1	CO1, CO2
1.3	Three Pillars of Sustainability: Concept of 3 Es Ecology, Economy and Equity	1	CO1, CO2
1.4	UN Sustainability Framework: Five Ps of Sustainability Framework People, Planet, Prosperity, Partnership and Peace, Concept of Sustainable Cities and National Mission for Sustainable Habitats	1	CO1, CO2
2.	**Sustainable Management of Water resources**	**3**	
2.1	Surface and Ground Water Resources: Understanding of ecological and environmental services provided	1	CO1, CO3

	by urban water bodies. Concepts of Blue-green infrastructure		
2.2	Role of Planners in Conservation and Sustainable management of Urban Water Bodies	1	CO1, CO3, CO4
2.3	National and International Case studies of Urban Water Bodies	1	CO1, CO3, CO5
3.	**Sustainable Waste Management**	**3**	
3.1	Sustainable Liquid waste management	1	CO1, CO3
3.2	Sustainable Solid waste management Sustainable management of Solid Waste: Municipal Solid Waste, Construction Waste, EWaste, BMW etc and case studies: National and International	2	CO3, CO5
4.	**Sustainable Energy Management**	**3**	
4.1	Renewable Energy Resources; Energy Transition	1	CO1, CO3
4.2	Blue Green infrastructure, Energy from Waste, Circular energy systems for energy efficiency	1	CO1, CO3
4.3	Sustainable transportation systems and Role of Planners in Energy Management	1	CO1, CO3, CO4
5.	**Land use Planning and Legal Mandates**	**4**	
5.1	Land Use Planning and Sustainability: Understanding of land as a finite resource, Sustainable use of land resources through emerging land use planning concepts and practices;	2	CO1,CO2, CO4
5.2	Role of zoning and development control regulations in ensuring sustainability: Institutional Mechanisms for state level Implementation	2	CO4
6.	**Introduction to climate change: Mitigation, Adaptation and Urban Resilience**	**13**	
6.1	Climate Change and Cities: India's position in Climate change , National Climate Action Plan, National Inventory of GHGs, Contribution from cities activities	2	CO1, , CO3, CO4, CO6
6.2	Understanding Vulnerability, Mitigation, Adaptation and Resilience in Spatial Planning: What is Vulnerability, Mitigation, Adaptation and Resilience, mitigation and adaptations in urban planning and development	3	CO1, CO4, CO6
6.3	National and International Case Studies on city implementation scale	2	CO1, CO4, CO5, CO6
6.4	Disasters: Concepts; Hazard, Vulnerability, Risk, Capacity; Disaster Management: Definition, Scope, Objectives, Elements, Terms, Recent Initiatives at International, National and State Levels, Causes and Consequence of Disaster- Natural and Man-Made disasters	3	CO1, CO6
6.5	Disaster risk reduction, Pre-Disaster Management measures, Post Disaster Management Measures, Disaster Management Plan	3	CO1,CO4, CO6
	Total Hours	**30**	

Learning Resources

1. John Blewitt, Sustainable Development: Principles, Perspectives and Practice, 4th edition, Routledge, 2022

2. Lise S. L. Hesselman, The UN Sustainable Development Goals: A Guide for Business and Human Rights, Edward Elgar Publishing, 2021
3. K. N. Tiwari and R. S. K. V. Prasanna, Sustainable Water Resources Management: Concept and Practice, Springer, 2021
4. M. P. S. Chadha, M. N. Murthy, and S. S. Prakash, Sustainable Waste Management: Policy and Practice, Springer, 2022
5. Narendra Kumar, Handbook of Sustainable Solid Waste Management, CRC Press, 2020
6. Anwar J., Environmental Impact Assessment and Sustainable Development, Elsevier, 2023
7. Bruce J. T., Climate Change and Urban Resilience, Wiley, 2022
8. R. K. Gupta, Climate Change: Mitigation and Adaptation, Oxford University Press, 2021
9. Camilla R., Urban Resilience to Climate Change: A Strategic Approach, Springer, 2022
10. UN-Habitat's "Call for Action for Sustainable Cities" (2023)
11. Urban Land Institute's "Reshaping the City: Zoning for a More Equitable, Resilient, and Sustainable Future" (2023)
12. Climate action guide for Urban Planners, November 2024
13. Kohler, Alois, Sebastian Julich, and Lena Bloemertz. Guidelines for Risk Analysis: A Basis for Disaster Risk Management. 1st ed., 2004
14. Taori, Kamal. Disaster Management through Panchayati Raj. Concept Publishing Company, 2005.
15. Pinkowski, Jack, ed. Disaster Management Handbook. CRC Press, 2008.
16. Diwan, Parag. A Manual on Disaster Management. Pentagon Earth, 2010.
17. Paul, Bimal Kanti. Environmental Hazards and Disasters: Contexts, Perspectives, and Management. John Wiley & Sons, West Sussex, 2011.
18. Penna, Anthony N., and Jennifer S. Rivers. Natural Disasters in a Global Environment. Wiley Blackwell, 2013.

Course Designers:

1. Gayathri Suresh gsharch@tce.edu

24UP220	REGIONAL PLANNING AND ANALYSIS	Category	L	T	P	Credit
		CFC	2	0	0	2

Preamble

Students are expected to obtain the skills in understanding a region, its dynamics, and planning complexities. They will also learn important concepts & techniques in Regional Planning.

Prerequisite

NIL

Course Outcomes

On the successful completion of the course students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Recognize the concepts of regional planning and its evolution including the types of regions	Understand 10%
CO2	Observe regional disparities, resource distribution, and multi-level planning efforts, and their effects on communities, economies, and environments.	Understand 10%
CO3	Summarise the impact of legislation on decentralized planning, governance, and resource allocation in regional development.	Understand 10%
CO4	Identify Growth Models to comprehend how these models explain patterns of regional development and resource distribution.	Understand 10%
CO5	Relate regional analysis to explore economic and spatial dynamics within regions.	Analyse 20%
CO6	Examine critically real-world case studies (both national and international) to assess how theoretical models and planning tools are implemented in diverse contexts.	Analyse 40%

Mapping with Programme Outcomes and Programme Specific Outcomes

COS	PO1	PO2	PO3	PO4	PO5
CO1	S	L	L	L	M
CO2	S	M	L	L	M
CO3	S	M	L	M	S
CO4	S	M	M	L	M
CO5	S	L	S	S	M
CO6	S	L	M	M	M

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

Cognitive Levels	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CO1		10				10				10				10				10		
CO2		10				10				10				10				10		
CO3		10				10				10				10				10		
CO4		10				10				10				10				10		

CO5				20		20						20				20				20
CO6				40				40				40				40				40

Syllabus

Introduction to Regional Planning Concept and need for regional planning- Evolution of Planning and Development - Sustainable regional development and its components - Region & its types **Regional Development and legal mandate** Regional disparities: socio-economic, infrastructure, and developmental gaps between regions - Multi-level planning - District planning, Special area development programmes and schemes and Rural development schemes- Role of 73 and 74 CAA in regional plan preparation and implementation TN Regional Context **Growth Models** Growth pole and growth centre - Core periphery concept - Central place theory - Agricultural and use model - Models of industrialization and regional development - Resource allocation models **Techniques Of Regional Analysis** Input Output Analysis- Shift and Share Analysis - Concentration and Dispersal Theory - Industrial Location Theory - Process of regionalization: Thiessen Polygon method, Weighted Overlay method, Gravity Model, Buffer Analysis and Cluster Analysis **Sectoral Analysis of Case Studies** Land Use Land Cover, Transportational Network, Resources: Natural and Manmade, Housing and Social infrastructure, Environment and ecology, Disaster Management and Risk mitigation, economic development and employment generation, Carrying capacity calculations, Governance and implementation mechanism - Mega Regions: Delhi Mega Region, Mumbai mega region - Metro regions: Kolkata Metro region, Chennai metro Region – North eastern, Coastal and River Valley regions - AKIC, BMIC, VCIC, DFC Regional Corridors -International Case studies

Learning Resources

1. Walter Isard, Methods of Regional Analysis: An Introduction to Regional Science, MIT Press, Cambridge, 1960
2. Kristof Van Assche, Raoul Beunen, and Martijn Duineveld (Editors), Elgar Encyclopedia in Urban and Regional Planning and Design, Edward Elgar Publishing, 2023
3. R.P. Misra, Regional Planning - Concepts, Techniques, Policies and Case Studies, Concept Publishing Company, 2010
4. Peter Hall and Mark Tewdwr-Jones, Urban and Regional Planning, Routledge, 2019
5. John Glasson and Tim Marshall, Introduction to Regional Planning
6. R.C. Chandana, Regional Planning and Development, Kalyani Publishers, 2015
7. John Glasson, TimMarshall,'Regional Planning- Natural and Built Environment' Routledge,2007
8. Innovation in Urban and Regional Planning: Proceedings of INPUT 2023
9. OECD Regional Outlook 2023
10. The Role of Intermediate Towns in Regional Development: A Case Study by the National Institute of Urban Affairs

Course Contents and Lecture Schedule

Module No.	Topic	No. of Hours	Course Outcome
1.	**Introduction to Regional Planning**	**2**	
1.1	Concept and need for regional planning and Evolution of regional planning and Development Sustainable regional development and its components: Indicators and measurements of sustainable development at the regional level	1	CO1, CO2
1.2	Region & its types: Defining a region: geographic boundaries, administrative, economic, and social constructs	1	CO1, CO2

2.	**Regional Development and Legal Mandate**	**4**	
2.1	Regional disparities: socio-economic, infrastructure, and developmental gaps between regions. Resources in regional development: sustainable resource utilization and avoiding resource depletion.	1	CO1, CO2
2.2	Multi-level planning: role of multi-level governance in regional planning (national, state, local levels).	1	CO2, CO3
2.3	District planning, Special area development programmes and schemes and Rural development schemes	1	CO2, CO3
2.4	Role of 73 and 74 CAA in regional plan preparation and implementation: Decentralization, local governance, and rural planning, TN Regional Context	1	CO3
3.	**Growth Models**	**4**	
3.1	Economic Growth and Development: Growth pole and growth centre, Core periphery concept	1	CO1, CO4, CO5
3.2	Spatial and Service Hierarchies: Central place theory	1	CO1, CO4, CO5
3.3	Land Use and Resource Allocation: Agricultural use model and Resource allocation models	1	
3.4	Models of industrialization and regional development	1	
4.	**Techniques Of Regional Analysis**	**8**	
4.1	Analysis techniques used for understanding growth patterns, resource distribution, and development opportunities: Input Output Analysis, Shift and Share Analysis, Concentration and Dispersal Theory, Shift and Share Analysis, Concentration and Dispersal Theory, Industrial Location Theory	4	CO1, CO5
4.2	Process of regionalization: how regions are delineated for planning purposes based on techniques: Thiessen Polygon method, Weighted Overlay method, Gravity Model, Buffer Analysis and Cluster Analysis	4	CO1, CO3, CO5
5.	**Sectoral Analysis of Case Studies**	**12**	
5.1	Sectors and its analysis methodology for regional plans: Land Use Land Cover, Transportational Network, Resources: Natural and Man made, Housing and Social infrastructure, Environment and ecology, Disaster Management and Risk mitigation, economic development and employment generation, Carrying capacity calculations, Governance and implementation mechanism	2	CO1, CO2, CO4, CO6
5.2	Mega Regions: Delhi Mega Region, Mumbai mega region	2	CO3, CO4, CO6
5.3	Metro regions: Kolkata Metro region, Chennai metro Region	2	
5.4	Northeastern, Coastal and River Valley regions	1	
5.5	Regional Corridors: Golden Quadrilateral, Golden Quadrilateral, Delhi-Mumbai, Chennai-Bangalore Industrial Corridor, AKIC, BMIC, VCIC, DFC, North-South and East-West Corridor Regions; Core, Fringe and Periphery in a Region and its planning	2	CO3, CO4, CO6
5.6	International Case Study: Comparative study of regional planning and regulatory practices in countries like the U.S., Germany, UK, and China.	3	CO3, CO4, CO6
	Total Hours	**30**	

Course Designers:

1. Gayathri Suresh gsharch@tce.edu

24UP230	URBAN INFORMATION SYSTEMS	Category	L	T	P	Credit
		CFC	1	0	1	2

Preamble

This course enhances the students' understanding about urban information systems and helps them to learn advanced techniques to analyze the configurations. Students are also introduced to urban configurations, spatial analysis and GIS which helps them to analyze complex cities easily with the help of tools. The course aims to equip students with the analytical tool necessary to understand the urban configurations and plan the urban environments.

Prerequisite

Nil

Course Outcomes

On the successful completion of the course students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Observe the basic urban configurations and their relevance to urban contexts.	Understand 10%
CO2	Comprehend the dynamics of data management, determinants of urban configurations, and the concept of urban information system.	Understand 10%
CO3	Recognize the role of data resource systems and sources to obtain the required data of an urban settlement.	Understand 10%
CO4	Utilize the concept of urban information systems to prepare plans and policies for urban configurations. .	Apply 20%
CO5	Compare the various urban forms using advanced statistical tests.	Analyze 20%
CO6	Interpret real-world urban configurations using spatial techniques and critically evaluating the impact of urban configuration on the settlement.	Evaluate 30%

CO Mapping with Programme Outcomes and Programme Specific Outcomes

Cos	PO1	PO2	PO3	PO4	PO5
CO1	S	L	L	L	L
CO2	S	S	L	L	L
CO3	M	M	M	L	L
CO4	S	S	S	M	S
CO5	S	M	L	M	M
CO6	L	S	M	S	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	Assignment - I					Assignment - II					Terminal (Viva-Voce)				
TPS Scale	1	**2**	**3**	**4**	**5**	1	**2**	**3**	**4**	**5**	1	**2**	**3**	**4**	**5**
CO1		10					10					10			
CO2		10					10					10			
CO3		10					10					10			
CO4			20					20					20		
CO5				20					20					20	
CO6					30					30					30

Syllabus

Urban Information Systems - Information Scales and Levels, Preconditions for Using Planning Information Systems, Urban Configurations. Representing, Modelling and Impact Analysis of the Data, Query Measurement and Transformations, Summary Statistics and Inference. Z test, T test, ANOVA, Chi square test. **Plan Preparation and Policy Planning -** Information needs for plan preparation and policy planning. Tools for spatial data handling- type, systems, nature, hierarchy and value; raster and vector data structures.Analysis tools and software; Spatial data models, Geo-database; geospatial information regulation Bill 2016. **Urban Information Resources and GIS -** Planning Information Systems- National Natural Resources Management System, National Urban Information System, National Urban Observatory, Municipal Information Systems, Land Information Systems; Global Navigation Satellite Systems; NUIS Guidelines & Design Standards.Geographic Information Systems- concept , components, benefits; Spatial data entry into GIS, Data structure for GIS; Mapping and spatial analysis software, Linking of attribute data, Spatial data aggregation, Raster data capture. Cloud based GIS on Bhuvan platform; GIS based Master Plans;Resource Satellite, Sensing Capabilities; Aerial Photography; Digital Survey; Raster Data Processing and Analysis; Resolutions;Geo-Rectification; Geometric Distortions, Image Enhancement, Transformation, Segmentation; Image interpretation and analysis, 3D Terrain Modelling. **Urban Information Management-** Data base management system; big data analytics and applications, Internet of Things (IOT) and its application in urban sector Management of tabular data, spread sheets, introduction to statistical packages with advantages and limitations; municipal information system- definition, need scope, limitations. **Spatial Analysis Techniques -** Spatial data and analysis unit, Spatial data analysis techniques – spatial interaction measure, population and job density decay curve, urban concentration and land use diversity measures. Measures of urban structure analysis, facility location analysis, Gini's coefficient, Accessibility measures.

Learning Resources

1. " Urban Informatics " Wenzhong Shi, Michael F. Goodchild, Michael Batty, Mei-Po Kwan
2. " Geographic Information Systems in Urban Planning and Management " by Manishkumar
3. " Information Systems for Urban Planning " by Robert Laurini.
4. "Urban Information Systems and Urban Indicators" by KennethJ.Dueker
5. " Policy, Planning, and People: Promoting Justice in Urban Development " by Naomi Carmon
6. " Urban Planning and its Discontents Practice in Contemporary India " by Dharshini Mahadevia.
7. " Cities by Design - The Social Life of Urban Form " by F.Tonkiss

Course Contents and Lecture Schedule

Module No.	Topic	No. of Hours	Course Outcome
1	**Urban Information Systems and Morphology:**	**6**	
1.1	Information Scales and Levels, Preconditions for Using Planning Information Systems, Urban Configurations	2	CO1
1.2	Representing, Modelling and Impact Analysis of the Data, Query Measurement and Transformations, Summary Statistics and Inference.	2	CO1 & CO2
1.3	Urban Morphology and Green spaces.	2	CO2 & CO3
2	**Plan Preparation and Policy Planning:**	**4**	
2.1	Information needs for plan preparation and policy planning, Manual data sources and Retrieval methods.	1	CO2
2.2	Tools for spatial data handling- type, systems, nature, hierarchy and value; raster and vector data structures.	1	CO3
2.3	Analysis tools and software; Spatial data models, Geo-database; geospatial information regulation Bill 2016.	2	CO4 & CO5
3	**Urban Information Resources and GIS**	**8**	
3.1	Planning Information Systems- National Natural Resources Management System (NNRMS), National Urban Information System, National Urban Observatory, Municipal Information Systems, Land Information Systems; Global Navigation Satellite Systems; NUIS Guidelines & Design Standards.	3	CO5 & CO6
3.2	Geographic Information Systems- concept , components, benefits; Spatial data entry into GIS, Data structure for GIS; Mapping and spatial analysis software, Linking of attribute data, Spatial data aggregation, Spatial data generalization; Raster data capture.	3	CO4 & CO5
3.3	Cloud based GIS on Bhuvan platform ; GIS based Master Plans; Resource Satellite, Sensing Capabilities; Aerial Photography; Digital Survey; Raster Data Processing and Analysis; Resolutions; Geo-Rectification; Geometric Distortions, Image Enhancement, Transformation, Segmentation; Image interpretation and analysis, 3D Terrain Modelling	**2**	CO3 & CO4
4	**Urban Information Management**	**6**	
4.1	Data base management system; big data analytics and		CO1,CO4

	applications, Internet of Things (IOT) and its application in urban sector.	3	& CO5
4.2	Management of tabular data, spread sheets, introduction to statistical packages with advantages and limitations; municipal information system-definition, need scope, limitations.	3	CO2,CO4 & CO6
5	**Spatial Analysis Techniques**	**6**	
5.1	Spatial data and analysis unit, Spatial data analysis techniques – spatial interaction measure, population and job density decay curve, urban concentration and land use diversity measures.	3	CO3 & CO4
5.2	Measures of urban structure analysis, facility location analysis, Gini's coefficient, Accessibility measures.	3	CO5 & CO6
	Total Hours	**30**	

Assignment Plan Samples:

Module No.	Topic	Course Outcome
1	Applying the spatial data models to use in data collection and submitting a report.	CO4
2	Database mapping for various data available in planning information systems.	CO5
3.	Group Projects: Investigate the spatial analysis techniques and dwell into its application in master plan preparation.	CO6

Course Designers:

Pasupathy K B kbparch@tce.edu

24UP240	URBAN GROWTH PLANNING	Category	L	T	P	Credit
		PCC	0	4	14	14

Preamble

In Urban growth planning studio, the students are expected to develop core competencies in making a Development Plan, which would go beyond the conventional 'predict and provide' approach. Through national and international case studies the students will understand and explore different approaches for planning, zoning, and regulations in order to prepare a plan that strives to be equitable, robust, and yet adaptable. At the end of the semester, the students will prepare a Development Plan with proposals integrating various sectors such as land use, transport, infrastructure, economy, environment etc; identify various projects, estimate costs, identify revenue sources, and suggests monitoring mechanism to ensure maximum implementation of the proposed plan.

Prerequisite

Nil

Course Outcomes

On the successful completion of the course students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Demonstrate the skills of surveying, mapping and analyzing the existing situations.	Apply (10%)
CO2	Examine the issues, future potentials and evaluate current trends, strengths, weaknesses, and future potentials.	Analyze(15%)
CO3	Research relevant acts, policies, and statuatory requirements in preparing and implementing the plan.	Analyze (15%)
CO4	Investigate the needs and develop ones own approach for planning, zoning, and regulations, based on case studies of relevant planning models and approaches taken by other cities.	Analyze (15%)
CO5	Prioritize a Development Plan that is robust and adaptable, which includes proposals integrating various sectors, and identifies various projects to ensure maximum implementation.	Evaluate (35%)
CO6	Communicate findings and recommendations clearly and persuasively through written reports, oral presentations, and visual representations.	Apply (10%)

Mapping with Programme Outcomes and Programme Specific Outcomes

Cos	PO1	PO2	PO3	PO4	PO5
CO1	S	L	L	M	S
CO2	S	S	S	S	S
CO3	S	S	L	L	L
CO4	S	S	L	M	L
CO5	S	S	S	L	S
CO6	S	L	L	L	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	Continuous Assessment (Reviews)					Terminal (Viva-Voce)				
TPS Scale	1	**2**	**3**	**4**	**5**	1	**2**	**3**	**4**	**5**
CO1			10					10		
CO2				15					15	
CO3				15					15	
CO4				15					15	
CO5					35					35
CO6			10					10		

Syllabus

Students should expect to learn and apply basic principles of how cities work, and engage in preparation of a Development Plan as part of this studio. Students will be assigned a city to analyse and learn, in which they will be exposed to different layers of a city and asked to perform surveys and data collection. Further delving into the ethical engagement with the community living in the city, their choices of housing, jobs and mobility are to be brought down to the paper. Finally, the impacts of governance and financial aspects of the city are measured and reasoned out which leads to the preparation of the Development Plan and proposals for the organic development of the city.

Learning Resources

1. Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications, 5384.
2. ITDP, E. (2011). Better Streets, Better Cities: A Guide to Street Design in Urban India. Ahmedabad: ITDP.
3. IUT (2012). Design of Urban roads: code of practice. IUT
4. UDPFI guidelines, http://cpheeo.nic.in/ : water supply, sewerage, solid waste management.
5. Reinier de Graaf. (2021). The Masterplan. A Novel.
6. Whyte, W. H. (2012). City: Rediscovering the center. University of Pennsylvania Press.
7. Romice, Ombretta (2020). Masterplanning for Change: Designing the Resilient City.
8. Stephen Hodge. (2012). The Master Plan.
9. Gehl, J. (2013). Cities for people. Island press.
10. Coyle, S. J. (2011). Sustainable and resilient communities: A comprehensive action plan for towns, cities, and regions
11. (Vol. 15). John Wiley & Sons.
12. Wise, S. (2009), The Blackest Streets: The Life and Death of a Victorian Slum: Vintage Books
13. Campbell, S., &Fainstein, S. S. (2003).Readings in Planning Theory (Studies in Urban & Social Change).
14. Jacobs, J. (1961), The Death and Life of Great American Cities: Vintage
15. Why complexity improves the quality of city life? https://lsecities.net/media/objects/articles/whycomplexityimprovesthequalityofcity- life/engb/
16. Richard Sennett, Nobody likes a city that's too smart https://www.theguardian.com/commentisfree/2012/dec/04/smartcityriosongdo- masdar
17. Speck, J. (2013). Walkable city: How downtown can save America, one step at a time. Macmillan.

18. Urban street design guide, National Association of City Transportation Officials.
19. Gillham, B. (2000). Case study research methods. Bloomsbury Publishing, 5979.
20. Walker, J. (2012). Human transit: How clearer thinking about public transit can enrich our communities and our lives. Island Press.

Course Contents and Lecture Schedule

Module No.		Topic	No. of Hours	Course Outcome
Week 1	Lecture	Introduction to Development Plan and Master Plan	2	CO1
	Lab	Collecting the data for Base Map preparation	6	
	Site and studio	Observing and inferring the Development Plan	8	
Week 2	Lab	Preparing the Base Map	7	CO1
	Studio	Understanding the City	9	CO3
Week 3 & 4	Theory	Theories on survey techniques, stakeholder consultations and situation analysis	4	CO3
	Lab	Existing situation analysis	14	CO1
	Site and studio	Surveys, Stake holder Consultations, Observations, land suitability and potentiality assessment	14	CO2
Week 5 & 6	Theory	Lecture on boundary delineation and approach to Development Plan	2	CO2
	Lab	Boundary delineation, Land use zoning, Transportation Network	13	CO1
	Site and studio	Development Plan framework	7	CO5
Week 7 & 8	Theory	Introduction to Proposals	2	CO4
	Lab	Broad Proposals	14	CO1
	Site and studio	Conceptual framework and initial Development Plan	10	CO4
Week 9	Theory	Case studies	5	CO5
	studio	Detailing out the draft Plan including proposals	11	CO4
REVIEW I				
Week 10	Theory	Introduction to regulations and scenarios	4	CO4
	Lab	Proposals on green and blue network, housing , environment, transportation	8	CO1
	Studio	Scenario Building	4	CO5
Week 11	Site & Studio	Evaluation and Preparation of Draft Development Plan	6	CO6
	Lab	Evaluation of Draft Development Plan	6	CO6
	Site& Studio	Cost Estimation, Resources for revenue generation, Development phasing	8	CO6

Week 12	Site	Household survey	8	CO6
Week 13	Theory	A study on Governance modules and system	2	CO5
	Site & Studio	Institutional framework and monitoring mechanism for implementation	8	CO6
	Studio	Institutional framework and Monitoring Mechanism	6	CO4
REVIEW II – FINAL PORTFOLIO				

Course Designers:

1. Prof.Dr. Jinu Louishida Kitchley - hodarch@tce.edu
2. K.B.Pasupathy - kbparch@tce.edu
3. Ar. Gayathri Suresh - gsharch@tce.edu

24UP310	URBAN HOUSING

Category	L	T	P	Credit
CFC	2	0	0	2

Preamble

This course enables the students to understand about the urban housing types, concepts and the existing scenario. It helps them to know about the construction materials used to build various types of houses. The students are made into a dynamic planner by learning to provide houses based on the needs of different peoples like women, senior citizens and differently abled. The poor and the needy are also given equal importance while planning for housing in an urban area.

Prerequisite

Nil

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Comprehend the dynamics of urban housing and the significance it plays in an urban setting	10 Understand
CO2	Interpret the social and economy dimensions of urban housing	15 Understand
CO3	Develop the mindset and steps to provide urban housing to all the people	15 Understand
CO4	Utilize the concept of urban housing to prepare a neighborhood level housing plan.	20 Apply
CO5	Compare the various types of houses that can be provided for the area	20 Analyse
CO6	Deconstruct real-world urban issues and provide suitable housing solution for the same.	20 Analyse

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	-	L	L	-
CO2	M	M	M	-	M
CO3	M	L	M	L	M
CO4	M	S	S	S	S
CO5	S	L	M	M	L
CO6	S	-	S	M	M

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CO1		20								10								10		
CO2		20								15				50				15		
CO3		20				50				15								15		
CO4			-								20				50				20	
CO5				40				50				20								20
CO6				-								20								20

Syllabus

Concepts and Definitions- Shelter as a basic requirement, determinants of housing form, Census of India definitions, Introduction to policies, housing need, demand and supply, dilapidation, structural conditions. Materials of constructions, housing age, occupancy rate, crowding, housing shortage, income and affordability, poverty and slums, houseless population. Various housing typologies viz. traditional houses, plotted development, group housing, multi-storied housing, villas, chawls, etc., slums and squatters, night shelters. Public health issues related to housing, various theories of housing, concept of green housing, green rating of housing projects. **Social And Economy Dimensions-** Housing as social security, role of housing in development of family and community well being, status and prestige related to housing, safety, crime and insecurity, deprivation and social vulnerability, ghettoism, gender issues, housing and the elderly. Contribution of housing to micro and macro economy, contribution to national wealth and GDP, housing taxation, national budgets, fiscal concessions, forward and backward linkages. **Housing and the City-** Understanding housing as an important land use component of city plan / master plan, considerations for carrying out city level housing studies, projections, land use provisions. Suitability of land for housing, housing stress identification, projecting housing requirements, calculating housing shortages, housing allocation. **Planning for Neighbourhoods** -Approaches to neighbourhood living in traditional and contemporary societies, elements of neighbourhood structure. Planning and design criteria for modern neighbourhoods, norms and criteria for area distribution, housing and area planning standards, net residential density and gross residential density, development controls and building byelaws. UDPFI guidelines, NBC 2005 provision,. case studies of neighbourhood planning. **Housing for Special Areas and Groups-**Arid / Coastal / Hilly Region Housing settlement & shelter characteristics, Materials & technology, design standards, climatic factors, danger of hazards, Settlement planning, development policies and programmes. Housing for Aged/Physically Challenged - concept & definition of old age characteristics of aging population, profile & growth of elderly persons, classification of elderly population, problems of elderly planning and design considerations for elderly, case study with special reference to housing. Housing for Women/Children – Importance of gender in housing, housing planning & design considerations with women perspective – hierarchy of spaces at macro and micro level, shelter for low income women, design considerations for urban and rural women, housing options for different categories for single women, government schemes, case study with special reference to housing. Housing for Refuges/Ousters – Concept of refuges, types of refuges, norms for treatment of refugees, refugees' law, refugees and housing, problems of refugees, planning considerations for the refugees, case study areas with reference to housing.

Learning Resources

1. Schwartz, A. (2021), Housing Policy in the United States, New York: Routledge.

2. Tighe, J. R., and Mueller, E. (2020), The Affordable Housing Reader, New York: Routledge.
3. Kenna, P. (2021), Global Urban Housing Crisis, London: Routledge.
4. Meen, G., and Whitehead, C. (2022), The Economics of Housing Markets, Oxford: Oxford University Press.
5. Desmond, M. (2016), Evicted: Poverty and Profit in the American City, New York: Crown Publishing Group.
6. Turner, J. F. C. (1976), Housing by People: Towards Autonomy in Building Environments, London: Marion Boyars.
7. Ellin, N. (2013), Good Urbanism: Six Steps to Creating Prosperous Places, Washington, D.C.: Island Press.
8. Kucina, I. (2020), Responsive Housing: Concepts and Cases, Belgrade: Faculty of Architecture, University of Belgrade.
9. Aitchison, M. (2018), Prefab Housing and the Future of Building: Product, Process, Policy, London: UCL Press.
10. Wakely, P. (2020), Housing the Urban Poor in Africa: Policy, Practice, and Perspective, London: Routledge.
11. Frenzel, F. (2016), Slumming It: The Tourist Valorization of Urban Poverty, London: Zed Books.
12. Yip, N. M. (2021), The Hong Kong Housing Crisis: Social Problems and Policy Challenges, Singapore: Palgrave Macmillan.
13. Harvey, D. (2008), The Right to the City, New York: New Left Review, September–October.
14. Lees, L., Shin, H. B., and López-Morales, E. (2016), Planetary Gentrification, Cambridge: Polity Press.
15. Kubey, K. (Ed.) (2021), Housing as Intervention: Architecture towards Social Equity, New York: Columbia Books on Architecture and the City.

Course Contents and Lecture Schedule

Module No	Topic	No. of Lecture Hours	Course Outcomes
1	**Concepts and Definitions**	**8**	
1.1	Shelter as a basic requirement, determinants of housing form, Census of India definitions, Introduction to policies, housing need, demand and supply, dilapidation, structural conditions.	2	CO1
1.2	Materials of constructions, housing age, occupancy rate, crowding, housing shortage, income and affordability, poverty and slums, houseless population.	2	CO2,CO3
1.3	Various housing typologies viz. traditional houses, plotted development, group housing, multi-storied housing, villas, chawls, etc., slums and squatters, night shelters.	1	CO5
1.4	Public health issues related to housing, various theories of housing, concept of green housing, green rating of housing projects.	2	CO1
1.5	Economics of Housing: Livelihoods and its role in housing choices	1	CO1
2	**Social And Economy Dimensions**	**4**	
2.1	Housing as social security, role of housing in development of family and community well being, status and prestige related to housing, safety, crime and insecurity, deprivation and social	2	CO2,CO3

	vulnerability, ghettoism, gender issues, housing and the elderly.		
2.2	Contribution of housing to micro and macro economy, contribution to national wealth and GDP, housing taxation, national budgets, fiscal concessions, forward and backward linkages.	2	CO2,CO5
3	**Housing and the City**	**4**	
3.1	Understanding housing as an important land use component of city plan / master plan, considerations for carrying out city level housing studies, projections, land use provisions.	2	CO1
3.2	Suitability of land for housing, housing stress identification, projecting housing requirements, calculating housing shortages, housing allocation.	1	CO2
3.3	Financing Models for meeting housing shortages like PPP	1	CO2
4	**Planning for Neighbourhoods**	**6**	
4.1	Approaches to neighbourhood living in traditional and contemporary societies, elements of neighbourhood structure.	2	CO1
4.2	Planning and design criteria for modern neighbourhoods, norms and criteria for area distribution, housing and area planning standards, net residential density and gross residential density, development controls and building byelaws.	2	CO3,CO5
4.3	UDPFI guidelines, NBC 2005 provision,. case studies of neighbourhood planning	2	CO4
5	**Housing for Special Areas and Groups**	**8**	
5.1	Arid / Coastal / Hilly Region Housing settlement & shelter characteristics, Materials & technology, design standards, climatic factors, danger of hazards, Settlement planning, development policies and programmes.	2	CO3,CO6
5.2	Housing for Aged/Physically Challenged - concept & definition of old age characteristics of aging population, profile & growth of elderly persons, classification of elderly population, problems of elderly planning and design considerations for elderly, case study with special reference to housing.	1	CO2,CO4
5.3	Housing for Women/Children – Importance of gender in housing, housing planning & design considerations with women perspective – hierarchy of spaces at macro and micro level, shelter for low income women, design considerations for urban and rural women, housing options for different categories for single women, government schemes, case study with special reference to housing.	2	CO3,CO6
5.4	Housing for Refuges/Ousters – Concept of refuges, types of refuges, norms for treatment of refugees, refugees' law, refugees and housing, problems of refugees, planning considerations for the refugees, case study areas with reference to housing.	2	CO2,CO5
5.5	Affordable Housing: Model followed in National and International case examples	1	CO2,CO5

Course Designers:

1.K.B. Pasupathy

24UP320	URBAN ADMINISTRATION AND MANAGEMENT

Category	L	T	P	Credit
CFC	2	0	0	2

Preamble

This course is designed to develop an understanding of (a) the foundational principles of urban governance, legal frameworks, and institutional structures in India, (b) the evolving role of government, markets, and public-private partnerships in urban management, (c) municipal finance, budgeting, and the role of financial devolution in local governance, (d) the significance of urban local bodies, decentralization, and their impact on service delivery, and (e) key urban planning legislations, governance tools, and management strategies to enhance urban administration and policy implementation.

Prerequisite

NIL

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Summarize the foundational principles of urban governance, legal frameworks, and institutional structures in India.	20 % Understand
CO2	Observe the evolving role of government, markets, and public-private partnerships in urban management.	15 % Understand
CO3	Recognize the role of Building and Land regulations in urban structure.	10 % Understand
CO4	Report on the structure, functions, and powers of urban local bodies, decentralization, and their impact on service delivery.	10 % Understand
CO5	Adapt key urban planning legislations, governance tools, and management strategies to enhance urban administration and policy implementation.	20% Apply
CO6	Research the impact of legislation by management tools like Service level benchmarks, KPIs etc. and analyze the gap in legislative mechanisms.	25 % Analyze

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	L	S	M	L
CO2	S	L	S	M	M
CO3	S	L	M	S	L
CO4	S	L	S	M	L
CO5	S	M	S	M	M
CO6	S	M	S	M	M

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
CO1	30				30				10				10				20			
CO2	10				10												15			
CO3	20				20				20				20				10			
CO4	20				20												10			
CO5			10				10				40				40				20	
CO6			10				10				30				30				25	

Syllabus

Introduction to Rule of Law and Governance - Introduction to Rule of Law - Foundation of modern democracies - Accessibility - Equality - Natural justice - Human rights - Rule of law in India - Constitution and Structure of Governance in India - Constitution - Federalism - Three pillars of governance - Definitions of Policies, Acts, Regulations, Rules and Guidelines - **Urban Local Bodies and Governance Mechanisms** - Municipal corporation, municipality, and town panchayat - Structure, functions, powers of ULBs - Field Visit to Urban Local bodies - Decentralization - Relevant urban governance legislation - Planning Legislation and Institutional Mechanisms - Evolution of Town and Country Planning Act - Role of ITPI - Urban Development Authorities - Think tanks - **Building and Land Development Legislations** - Building Regulations and its components - Norms governing residential and industrial layouts - Linkage - Hierarchy of roads - Plot size - Frontage - Open Space Reservations - Reservation of land for EWS - Allocation of land for public purposes - Form-Based Regulations - Land Development Legislation - Regulations for integrated townships - Special economic zones - Export processing zones - IT Parks - Hill Region Development Act - Land Acquisition Act - Land Pooling - Area Development Scheme - TDR - **Environmental Legislations** - Environmentalism - Evolution of environmental laws in India - Indian Forest Act 1927 - Environmental Protection Act 1986 - National Environmental Policy - Pollution control acts - Air, Water, and Environmental Protection Acts - EIA Notification - Forest and Wildlife Act - NGT - CRZ Notification - MoEFCC Guidelines and Notifications - **Smart and E-Governance** - Service Level Benchmarking - KPIs - Citizens Charter - Scheme-based dashboards - Performance-Based Governance - Principles of Good Governance - Land Administration and Management - Models of land assembly - Land administration - Management - Land records - Mapping.

Learning Resources

1. Bingham, T. (2010), *The Rule of Law*, London: Penguin Books.
2. Narasappa, H. (2018), *The Rule of Law in India: A Quest for Reason*, New Delhi: Oxford University Press.
3. Crick, B. (2002), *Democracy: A Very Short Introduction*, Oxford: Oxford University Press.
4. Khosla, M. (2012), *The Indian Constitution*, New Delhi: Oxford University Press.
5. De, R. (2018), *A People's Constitution: The Everyday Life of Law in the Indian Republic*, Princeton: Princeton University Press.
6. Schuck, P. H. (2014), *Why Government Fails So Often and How It Can Do Better*, Princeton: Princeton University Press.
7. Lambert, T. A. (2017), *How to Regulate: A Guide for Policymakers*, Cambridge: Cambridge University Press.

8. Ministry of Housing and Urban Affairs (n.d.), *Models of Financing Urban Infrastructure in India*, Government of India. [If author/date are unknown, you can cite as Ministry publication.]
9. Baud, I. S. A., & De Wit, J. (Eds.) (2008), *New Forms of Urban Governance in India*, New Delhi: Sage Publications.
10. Vaddiraju, A. K. (2009), *Urban Governance and Local Democracy in South India*, New Delhi: Rawat Publications.
11. NIPFP (2011), *Municipal Finance Matters: India Municipal Finance Report*, New Delhi: National Institute of Public Finance and Policy.
12. Agarwal, B. K. (2009), *Land Law and Administration*, New Delhi: Central Law Publications.
13. Chaudhuri, B. (2014), *E-Governance in India: Interlocking Politics, Technology, and Culture*, London: Routledge.
14. Divan, S., & Rosencranz, A. (2002), *Environmental Law and Policy in India*, New Delhi: Oxford University Press.

Course Contents and Lecture Schedule

Module No	Topics	Hours	COs
1	**Introduction to Rule of Law and Governance**	**3**	
1.1	Introduction to Rule of Law: The foundation of modern democracies, accessibility, equality, natural justice, human rights, and rule of law in India.	1	CO1, CO2
1.2	Constitution and Structure of Governance in India: Constitution, federalism, three pillars of governance, International Models of Administration	1	CO1, CO2
1.3	Definitions of Policies, Acts, Regulations, Rules and Guidelines	1	CO1, CO2
2	**Urban Local Bodies and Governance Mechanisms**	**7**	
2.1	What is a municipal corporation, municipality and town panchayat and how it works: Structure, functions, powers of ULBs, decentralization, and relevant urban governance legislation.	2	CO1, CO4
2.2	Field Visit to Urban Local bodies to understand the governance mechanisms and interview two government officials, one at a technical level and one at a leadership level to understand the complexities of urban administration	2	CO1, CO2 CO4
2.3	Planning legislation and Institutional mechanisms: Evolution of Town and Country Planning Act, Role of ITPI, Urban Development Authorities and Think tanks	3	CO1, CO4, CO5
3	**Building and Land Development Legislations**	**8**	
3.1	Building Regulations and its components: Norms governing residential and industrial layouts- Linkage, Hierarchy of roads, Plot size, Frontage, and Open Space Reservations– Reservation of land for EWS-Allocation of land for public purposes, Form Based Regulations	2	CO3, CO5, CO6

3.2	Land Development Legislation: –Regulations relating to development of integrated townships, Special economic zones, export processing zones, and IT Parks, Hill region development act	4	CO3, CO5, CO6
3.3	Models of land assembly, land administration, management, land records, and mapping.: Land Acquisition Act, Land pooling Area development Scheme, TDR	2	CO3, CO4, CO5
4	**Environmental Legislations**	**6**	
4.1	Environmentalism; Evolution of environmental laws in India; Indian forest act 1927– Environmental protection act 1986—, National Environmental Policy Pollution control acts - air, water and environmental protection acts, EIA notification, Forest and wildlife act;	4	CO3, CO5, CO6
4.2	NGT; URDPFI, RADPFI, CRZ notification, MoEFCC guidelines and notifications; NDMA Guidelines and NBC	2	CO3, CO5, CO6
5	**Smart and E- Governance**	**6**	
5.1	Service Level Benchmarking, KPIs, Citizens Charter, Scheme based dashboards Performance Based Governance	1	CO5, CO6
5.2	Planning and Building approval Process, permits, single window clearance system	1	CO3, CO5, CO6
5.3	Monitoring and Evaluation Mechanisms: Impact assessment, Toolkits etc.	1	CO3, CO5, CO6
5.4	Principles of Good Governance	1	CO1, CO5

Course Designers:

1. Gayathri Suresh

24UP330	INFRASTRUCTURE PLANNING

Category	L	T	P	Credit
CFC	1	0	1	2

Preamble

This course is designed to develop an understanding of (a) the key concepts, attributes, and types of infrastructure and their role in urban planning; (b) the status of infrastructure in India and its impact on social and economic development; (c) various strategies for planning, designing, and managing urban infrastructure systems, including water supply, sanitation, solid waste management, social infrastructure, and transportation; (d) relevant standards, guidelines, and regulatory frameworks governing urban infrastructure planning and development; and (e) the role of planners in ensuring sustainable, efficient, and inclusive infrastructure solutions for cities.

Prerequisite

NIL

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Learning the definitions, attributes, types, and significance of infrastructure in urban development	15 % Understand
CO2	Gain insights into water resource management, sanitation systems, waste management strategies and Electricity consumption	20 % Understand
CO3	Demonstrate the responsibilities of urban planners in infrastructure planning, familiarizing them with regulatory frameworks to guide decision-making.	20 % Apply
CO4	Study the essential components of social infrastructure analyzing policies and frameworks that enhance urban quality of life.	15 % Understand
CO5	Learn key concepts of transportation planning to develop efficient and sustainable transport systems.	20 % Understand
CO6	Investigate the institutional mechanisms, public-private partnerships, financial models, and innovative technologies shaping urban infrastructure	10 % Apply

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	L	S	M	L
CO2	S	L	S	S	M
CO3	S	L	M	S	M
CO4	S	L	S	S	L
CO5	S	M	S	M	M
CO6	S	M	S	M	M

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	Assignment - I				Assignment - II				Terminal			
TPS Scale	2	3	4	5	2	3	4	5	2	3	4	5
CO1	20								15			
CO2	40				10				15			
CO3		30				10				20		
CO4					20				15			
CO5					30				15			
CO6		10				30				20		

Syllabus

Introduction to Infrastructure Planning - Definition, attributes, character, and types of Infrastructure - Status of Infrastructure in India and its impact on Social & Economic Development - Role of Planner in Urban Infrastructure Planning - Familiarizing CPHEEO Manuals, IRC Codes, and other standard guidelines - **Urban Water Supply Systems** - Surface and Ground Water Sources - Quality and Quantity Requirements - Water Demand - Treatment, Conveyance, and Distribution of Water Supply Systems - Supply Methods and Networks - Institutional Framework & Water Tariff Systems - **Urban Sanitation and Sewerage System** - Quality & Quantity of Sewage - Network-based & Non-network-based Sewerage Systems - Faecal Sludge Management - Stormwater rainfall data interpretation - Points of water stagnation - System of natural drains - Surface topography and soil characteristics - Groundwater replenishment - Stormwater collection and disposal - Norms and standards - Institutional arrangements - Planning provisions and management issues - Solid Waste Management System - Classification and Characteristics of Solid Wastes - Stages of SWM System - Source Reduction - Case Study discussion on best practices - **Electricity & Other Support Services** - Sources of power procurement - Distribution networks - Demand assessment - Norms and standards - Planning provisions and management issues - History of fire hazards - Vulnerable locations - Methods of fire fighting - Norms and standards - Planning provisions and management issues - **Social Infrastructure** - Types of social infrastructure - Health care - Essential services - Availability, access, and utilization - Standards - Public and private institutions - Policies - National Rural Healthcare Mission - Hierarchy of healthcare establishments - Education - Primary and secondary educational institutions - Standards - Policies - Right to Education (RTE) - Public and community spaces - Recreational, safety, and security - **Transportation** - Introduction to transport and travel - Understanding travel from the mobility, economic, social-psychologist, time/space perspective - Transportation planning process - Introduction to four-stage modeling - Land use and transportation integration - Demand and supply of transport - Congestion pricing - Transit-oriented development - Transport Pricing - Basic transport economic model.

Learning Resources

1. Indian Roads Congress (2011), *Manual for Planning and Development of Urban Roads and Streets*, IRC: New Delhi.
2. CPHEEO (Central Public Health and Environmental Engineering Organisation) (various years), *Manuals on Water Supply, Sewerage, and Solid Waste Management*, Ministry of Housing and Urban Affairs, Government of India.

3. Ministry of Urban Development (2014), *Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines*, Government of India, New Delhi.
4. Ministry of Housing and Urban Affairs (n.d.), *Urban Infrastructure Development Fund (UIDF) Manual*, Government of India.
5. Das, P., Panda, R., and Jain, A. K. (2016), *Urban Water and Sanitation in India: Multi-stakeholder Dialogues for Systemic Solutions*, Springer: Singapore.
6. Singh, S., Goyal, R., and Jain, A. (2022), *Urban Crisis in India: New Initiatives in Safe Water and Waste Management*, New Delhi: TERI Press.
7. IDFC Institute (2023), *India Infrastructure Report 2023*, New Delhi: Oxford University Press.
8. Rashmi, S. M., Sarkar, D., and Chowdhury, A. (2020), *Development and Management of Urban Infrastructure in India*, Jaipur: Rawat Publications.
9. Kumar, A., and Meshram, D. S. (Eds.) (2022), *Future of Cities: Planning, Infrastructure, and Development*, New Delhi: Springer India.

Course Contents and Lecture Schedule

Module No	Topic	Hours	COs
1	**Introduction to Infrastructure Planning**	**3**	
1.1	Definition, attributes, character and types of Infrastructure;	1	CO1
1.2	Status of Infrastructure in India and its impact on Social & Economic Development	1	CO1, CO3
1.3	Role of Planner in Urban Infrastructure Planning; Overview of Integration of Infrastructure systems	1	CO3
2	**Urban Water Supply Systems**	**4**	
2.1	Surface and Ground Water Sources, Quality and Quantity Requirements, Water Demand	1	CO2
2.2	Treatment, Conveyance and Distribution of Water Supply Systems, Supply Methods and Networks; Institutional Framework & Water Tariff Systems;	1	CO2, CO6
2.3	Familiarizing CPHEEO Manuals, IRC Codes and other standard guidelines; Projections and shortage	1	CO2, CO6
2.4	Field Visits	1	CO2, CO6
3	**Urban Sanitation and Sewerage System**	**6**	
3.1	Quality & Quantity of Sewage; Network based & non-network-based Sewerage Systems; Fecal Sludge Management;	2	CO2
3.2	Storm water rainfall data interpretation, points of water stagnation, system of natural drains, surface topography and soil characteristics, ground water replenishment	1	CO3, CO2
3.3	storm water collection and disposal, norms and standards, institutional arrangements, planning provisions and management issues.	1	CO3, CO2
3.4	Solid Waste Management System- Classification and Characteristics of Solid Wastes; Stages of SWM System; Source Reduction; Case Study discussion on best practices; Projections and shortage	2	CO2, CO6
3.5	Field Visit	1	CO2, CO6
4	**Electricity & Other Support Services**	**3**	
4.1	Sources of power procurement, distribution networks, demand	1	CO2, CO6

	assessment, norms and standards, planning provisions and management issues; Projections and shortage		
4.2	History of fire hazards, vulnerable locations, methods of fire fighting, norms and standards, planning provisions and management issues	2	CO3, CO6
5	**Social Infrastructure**	**8**	
5.1	Types of social infrastructure	1	CO1, CO4
5.2	Health care -essential service, availability, access and utilization, standards, public and private institutions, policies, National Rural Healthcare Mission, hierarchy of health care establishments	3	CO4
5.3	Education: primary and secondary educational institutions, standards, policies, right to education (RTE)	2	CO3, CO4
5.4	Public and community spaces recreational, safety and security.	1	CO4
5.5	Digital Infrastructure and its importance it efficient functioning of Infrastructural systems	1	CO3, CO4
6	**Transportation**	**6**	
5.1	Introduction to transport and travel; Understanding travel from the mobility, economic, social-psychologist, time/space perspective, relevance to Industrial development	3	CO5, CO6
5.2	Transportation planning process; Introduction to four stage modelling	1	CO5, CO6
5.3	Land use and transportation integration; Demand and supply of transport; Congestion pricing, transit orient development; Transport Pricing, Basic transport economic model.	2	CO5, CO6

Course Designers:

1. Gayathri Suresh

24UP340	LOCAL AREA PLANNING

Category	L	T	P	Credit
PCC	0	4	14	14

Preamble

In Local area planning studio, the students are expected to develop core competencies in making a micro level Plan in the form of local area plans, Land pooling Schemes and town planning schemes. The studio is focused on developing greenfield and brownfield areas which go beyond conventional approaches and integrate multidisciplinary aspects.

Prerequisite

Nil

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Study, analyze and evaluate different models of microlevel planning across the world and across India.	10 Understand
CO2	Understand the statutory and nonstatutory planning and development mechanisms available to prepare and implement microlevel plans, assess the impacts of the existing mechanisms on urban form, development and livability and environment	10 Understand
CO3	Apply the data from various sources and compile it into a single micro level plan	10 Apply
CO4	Carryout feasibility study for development or redevelopment within given area.	20 Apply
CO5	Prepare the best possible plans for greenfield areas, developed areas, heritage areas, Smart City or other such local areas to achieve the highest quality of urban environment considering livability, sustainability, affordability and user experience.	30 Evaluate
CO6	Identify and apply appropriate development models such as TPS and LAP to carry out landreconstitution, land pooling, acquisition, incentivebased land appropriation etc. for efficient implementation of the planwithout requiring forceful acquisition or net loss to individual owners considering existing and future land values.	20 Analyse

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	L	L	M	S
CO2	S	S	S	S	S
CO3	S	M	L	L	M
CO4	S	S	L	M	L
CO5	S	S	S	M	S
CO6	M	M	L	L	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CA(Review)					Terminal				
TPS Scale	1	2	3	4	5	1	2	3	4	5
CO1		10					10			
CO2		10					10			
CO3			10					10		
CO4			20					20		
CO5					30					30
CO6				20					20	

Syllabus

Students should expect to learn and apply basic principles of how cities work, and engage in preparation of local area Plan as part of this studio. Students will be assigned an area to analyse and learn, in which they will be exposed to different layers of micro level planning and asked to perform surveys and data collection. Further delving into the ethical engagement with the community living in the city, their choices of housing, jobs and mobility are to be brought down to the paper. Finally, the impacts of governance and financial aspects of the area are measured and reasoned out which leads to the preparation of local areaPlan and proposals for the organic development of the area.

Learning Resources

1. Rios, M. (2021), The Neighborhood Planning Guide, New York: Routledge.
2. Bohl, C., and Rivard, J.-F. (2021), Small Town and Rural Planning, Washington, D.C.: American Planning Association Press.
3. Hack, G. (2023), Local Planning: Contemporary Principles and Practice, Washington, D.C.: International City/County Management Association (ICMA).
4. Kelly, E. D. (2020), Community Planning: How to Solve Urban and Environmental Problems, Washington, D.C.: Island Press.
5. Brugmann, J. (2016), The Participatory City: Co-Design for Sustainable Urban Futures, Cambridge, MA: MIT Press.
6. Einstein, K. L., Glick, D. M., and Palmer, M. (2019), Neighborhood Defenders: Participatory Politics and America's Housing Crisis, Cambridge: Cambridge University Press.
7. Lydon, M., and Garcia, A. (2018), Placemaking: Tactical Urbanism for Neighborhood Change, Washington, D.C.: Island Press.
8. Madden, M. (2022), Local Planning Codes Unlocked: Zoning for Good Design and Livable Communities, Chicago: American Planning Association Press.
9. Rios, M. (2021), The Neighborhood Planning Guide, New York: Routledge.
10. Bohl, C., and Rivard, J.-F. (2021), Small Town and Rural Planning, Washington, D.C.: American Planning Association Press.
11. Hack, G. (2023), Local Planning: Contemporary Principles and Practice, Washington, D.C.: International City/County Management Association (ICMA).
12. Kelly, E. D. (2020), Community Planning: How to Solve Urban and Environmental Problems, Washington, D.C.: Island Press.
13. Brugmann, J. (2016), The Participatory City: Co-Design for Sustainable Urban Futures, Cambridge, MA: MIT Press.

14. Einstein, K. L., Glick, D. M., and Palmer, M. (2019), Neighborhood Defenders: Participatory Politics and America's Housing Crisis, Cambridge: Cambridge University Press.
15. Lydon, M., and Garcia, A. (2018), Placemaking: Tactical Urbanism for Neighborhood Change, Washington, D.C.: Island Press.
16. Madden, M. (2022), Local Planning Codes Unlocked: Zoning for Good Design and Livable Communities, Chicago: American Planning Association Press.
17. Thomas, C., and Ospina, S. (2020), GIS for Local Government, Redlands, CA: Esri Press.
18. Goh, K. (2022), Just Urban Design: The Struggle for a Public City, Cambridge, MA: MIT Press.
19. Rothstein, R. (2017), The Color of Law: A Forgotten History of How Our Government Segregated America, New York: Liveright Publishing Corporation.
20. Desmond, M. (2016), Evictions in the Neighborhood: Poverty and Profit in the American City, New York: Crown Publishing Group.
21. American Planning Association (2019), Great Neighborhoods: The Livability Handbook, Chicago: APA Press.
22. Walters, D. (2021), Incremental Urbanism: Reimagining the Local Scale, New York: Routledge.
23. Hancox, D. (2013), The Village Against the World, London: Verso Books.

Course Contents

Module No.		Topic	No. of Hours	Course Outcome
Week 1	Lecture	Introduction to Micro level planning	2	CO1
	Lab	Collecting the data for Base Map preparation	6	
	Site and studio	Study of Development Models Case studies across India and international	8	
Week 2, 3 and 4	Lab	Preparing the Base Map	7	CO1
	Studio	Secondary data collection, review of existing and previous plans, stakeholder consultations	9	CO3
Week 5	Theory	Theories on preparing vision statements	4	CO3
	Lab	Existing situation analysis	14	CO1
	Site and studio	Initial vision and concept	14	CO2
Week 6 & 7	Theory	Lecture on boundary delineation and approach to Development Plan	2	CO2
	Lab	Boundary delineation, Land use zoning, Transportation Network	13	CO1
	Site and studio	Preparation of schematic Master Plan with Proposed Road network, green network	7	CO5
Week 8 &9	Theory	Introduction to Proposals	2	CO4

	Lab	Broad Proposals	14	CO1
	Site and studio	Final Zoned Master Plan with Proposed road network Vision, Ratio nale for TP/LAP	10	CO4
Week 10	Theory	Town plan and Local area plan	5	CO5
	studio	Conceptual preparation of TP/LAP wit h initial Fform/LFor	11	CO4
REVIEW I				
Week 11	Theory	Introduction to detailed study on networks and forms	4	CO4
	Lab	Street network analysis and built form analysis	8	CO1
	Studio	Detail out Street network and sections Detailed built form, Public sp ace design, Infrastructure and amenities L and readjustment Development regulations	4	CO5
Week 12	Site & Studio	Evaluation and Preparation of Draft TP/LAP Development regulations	6	CO6
	Lab	Draft TP/LAP Map & Development Regulations	6	CO6
Week 13	Site & Studio	Infrastructure, Planning & Estimation Cost Estimate & Resources for revenu e generation and revenue estimate.	8	CO6
	Lab	Costing and Estimation	8	CO6
Week 14	Theory	A study on Governance modules and system	2	CO5
	Site & Studio	Final Reconstitution, Detailed design, regulations, Infrastructure, pla nning & estimation, Valuation, FForm, Gform, Lform for implementation	8	CO6
	Studio	Final Reconstitution, Detailed design, regulations, Infrastructure, plann ing & estimation, Valuation, FForm, Gform, Lf orm	6	CO4
REVIEW II – FINAL PORTFOLIO				

Course Designers:

1.K.B. Pasupathy

2. Gayathri Suresh

24UP410	FINANCIAL STRATEGIES FOR URBAN DEVELOPMENT

Category	L	T	P	Credit
CFC	2	0	0	2

Preamble

This course is designed to develop an understanding of (a) the key principles of public finance and their relevance to urban development, (b) the role of fiscal policies, intergovernmental finance, and municipal budgeting in shaping urban infrastructure and services, (c) various financial mechanisms such as municipal bonds, land-based financing, and public-private partnerships for funding urban projects, (d) innovative financial strategies that enhance the sustainability and resilience of urban development, and (e) the application of financial tools and policies in planning, managing, and implementing urban infrastructure projects effectively.

Prerequisite

NIL

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Gain knowledge of Macroeconomic policies and their implications for urban planning	20% Understand
CO2	Describe government accounts, capital and revenue budgets, deficits, fiscal responsibility, and budget management.	20% Understand
CO3	Discuss the understanding of intergovernmental fiscal relations, including the role of Central and State Finance Commissions for urban development	10% Understand
CO4	Demonstrate municipal budgeting, taxation, grants, user charges, and other financial instruments supporting local governance.	20% Apply
CO5	Compare various land-based financing mechanisms	15% Analyze
CO6	Investigating Public-Private Partnerships and the role of lending institutions in mobilizing financial resources for urban development projects.	15% Analyze

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	L	S	M	L
CO2	S	L	S	M	M
CO3	S	L	M	S	L
CO4	S	L	S	M	L
CO5	S	M	S	M	M
CO6	S	M	S	M	M

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
CO1	30				30												20			
CO2	30				30				10				10				20			
CO3	20				20				10				10				10			
CO4		20				20				30				30				20		
CO5											25				25				15	
CO6											25				25				15	

Syllabus

Public Finance for Planners – Macroeconomic policies – fiscal and monetary policies – money flow – interest – taxation – public expenditure – Monetary policy – interest rates – money supply – inflation – role of central banks – Fiscal policies – direct and indirect taxation – Notion of government accounts and budgets – capital revenue accounts – deficits – Public Expenditure review – fiscal responsibility and budget management – review of state finances – **Fiscal decentralization and Intergovernmental fiscal relations** – History of Intergovernmental Transfers in India – role of Central Finance Commissions – State Finance Commissions – Design of intergovernmental transfer models – performance-based grants – tied and untied grants – issues – **Introduction to Municipal Finance** – Municipal income – expenditure mandates – decision making – Municipal budget process – Sources of municipal finances – grants – taxes – user charges – borrowings -**Municipal Debt and Investment Strategies** – Discussion on major sources – issues around property taxes and user charges – Municipal finance in other countries – expenditure pattern – Municipal debt – bonds – global and Indian experience – Importance of regulation – credit rating – municipal development funds – New thinking for results-based funding – social impact investing – **Land Management and Partnerships** – Land-based financing mechanisms – Land Value Capture – Public-private partnerships – private sector collaborations like consultants – contractors – developers – Bilateral and Multilateral lending institutions – mobilizing resources for a project – financial resources – land – project and other resources.

Learning Resources

1. A Municipal Finance Blueprint For India
2. De, Supriyo (2012), Fiscal Policy in India: Trends and Trajectory, Ministry of Finance, Government of India, Working Paper, January.
3. http://indiabudget.nic.in/index.asp
4. Mishkin, Frederic S. (2013), The Economics of Money, Banking and Financial Markets, Global Edition, Pearson.
5. Mohanty, P.K. et al. (2007), “Department of Economic Analysis and Policy”, Reserve Bank of India, Mumbai.
6. Rao, Govind and Richard Bird (2010), Urban Governance and Finance in India, Working Paper 201068, National Institute of Public Finance and Policy, New Delhi.
7. Steffenson, Jesper (2010), Fiscal Decentralisation and Sector Funding Principles and Practices, DANIDA, Mimeo.
8. Steffenson, Jesper (2011), Performance-Based Grant Systems: Concepts and International Experience, UNCDF.
9. Government of India, Fiscal Responsibility and Budget Management (FRBM) Act Review, Ministry of Finance.

10. World Bank (2011), Developing a Regulatory Framework for Municipal Borrowing in India, Vol. I.
11. Phatak, V.K. (2013), "Land-Based Fiscal Tools and Practices for Generating Additional Financial Resources", Report for the MOUD, Government of India.

Course Contents and Lecture Schedule

Module No	Topic	Hours	COs
1	**Public Finance for Planners**	**6**	
1.1	Macroeconomic policies – fiscal and monetary policies, money flow, interest, taxation, and public expenditure	2	CO1, CO2
1.2	Monetary policy – interest rates, money supply, inflation, role of central banks, Fiscal policies – direct and indirect taxation	2	CO1, CO2
1.3	Notion of government accounts and budgets, capital revenue accounts, deficits. Public Expenditure review, fiscal responsibility and budget management, review of state finances	2	CO1, CO2
2	**Fiscal decentralization and Inter government fiscal relations**	**4**	
2.1	History of Inter Government Transfers in India, role of Central Finance Commissions, State Finance Commissions	2	CO2, CO3
2.2	Design of intergovernmental transfer models, performance-based grants, tied and untied grants and issues	2	CO2, CO3
3	**Introduction to Municipal Finance**	**6**	
3.1	Introduction to Municipal finances, implications of 74th Constitution Amendment Act for municipal finance, expenditure pattern	2	CO3, CO4
3.1	Municipal income, expenditure mandates, decision making, Municipal budget process.	2	CO3
3.2	Sources of municipal finances – grants, taxes, user charges and borrowings; Climate Funding; TNSF, TNIFMC	2	CO3, CO4
4	**Municipal Debt and Investment Strategies**	**8**	
4.1	Discussion on major sources –issues around property taxes and user charges Municipal finance in other countries	2	CO3, CO4
4.2	Municipal debt, bonds, global and Indian experience	2	CO2, CO4,
4.3	Importance of regulation, credit rating, municipal development funds	2	CO4, CO5, CO6
4.4	New thinking for results-based funding, social impact investing	2	CO4, CO6
5	**Land Management and Partnerships**	**6**	
5.1	Land based financing mechanisms, Land Value Capture	2	CO5
5.2	Public private partnerships, private sector collaborations like consultants, contractors and developers	2	CO5, CO6
5.3	Bilateral and Multilateral lending institutions mobilizing resources for a project – financial resources, land, project and other resources	2	CO6

Course Designers:

1. Gayathri Suresh

24UP420	PROJECT MANAGEMENT AND PROFESSIONAL PRACTICE

Category	L	T	P	Credit
CFC	2	0	0	2

Preamble

This course is designed to develop an understanding of (a) the principles of project formulation and appraisal, including market analysis, technical analysis, and social cost-benefit assessment; (b) the structure and processes of planning at various governance levels, with a focus on public sector consultancy and procurement mechanisms; (c) the role and involvement of the private sector in planning, including consultancy, contracting, and development; (d) the frameworks and models of public-private partnerships (PPP) and joint sector collaborations in urban development; and (e) global trends in urban planning practice, highlighting the impact of liberalization, privatization, and globalization, along with the evolving roles of planners in consultancy, research, and entrepreneurship.

Prerequisite

NIL

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Explain the principles of project formulation and appraisal in urban planning	10% Understand
CO2	Describe the role of public and private sector participation in planning, project development, and implementation.	15% Understand
CO3	Determine the financial and economic feasibility of urban projects using various assessment frameworks and methodologies.	15% Evaluate
CO4	Implement policy, legal, and institutional frameworks relevant to planning, procurement, and project management.	20% Apply
CO5	Identify contemporary urban planning practices at local, national, and global levels, considering governance structures and regulatory mechanisms.	20% Understand
CO6	Illustrate critical thinking and decision-making skills to assess planning projects, stakeholder roles, and sustainability considerations.	20% Apply

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	L	S	M	L
CO2	S	L	S	M	M
CO3	S	L	M	S	L
CO4	S	L	S	M	L
CO5	S	M	S	M	M
CO6	S	M	S	M	M

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
CO1	20				20				10				10				10			
CO2	20				20				20				20				15			
CO3				20				20				10				10				15
CO4			20			20				20				20				20		
CO5		20					20		20				20				20			
CO6										20				20				20		

Syllabus

Project Formulation and Appraisal – Relationship between projects and planning issues including sectoral policy at local, state, and national levels – Project appraisal – Market analysis – Macro environment survey, survey methods, market characterization, demand forecasting – Technical Analysis – Magnitude, processes, materials, equipment, factors of production availability, implementation schedule – Suitability of the plans, layout and design, location of the project – Location analysis – Supporting infrastructure requirements – Capital Budgeting – Estimation of costing of components – Developing overall project cost – Social cost-benefit analysis –**Planning and Public Sector** – Planning at national level, interstate level, state government level, district level, metropolitan level, and local level – Consultancy practice in the public sector – Procurement of goods, works, consulting services, and non-consulting services – Role of government as a facilitator – Bid Process and Its Management – E-tendering – **Private Sector Collaboration in Planning** – Initiation of the Private Sector in Planning Practice – Need for private sector involvement – Types of private sector participants, consultants, contractors, and developers – Systems of private sector participation – Developing Terms of References (TOR) – Drafting Expression of Interest (EOI) – Joint Sector and Public-Private Partnership – Professional Practice in the Joint Sector – Understanding Joint sector – **Public-private partnership** – Models of PPP (case-based approach) – Drafting Request for Proposal (RFP) – Drafting a Concession Agreement – **Global Perspectives in Contemporary Planning Practice** – International Urban Planning Practice – Effect of liberalization, privatization, and globalization on planning practice – Models of the supply of services – Understanding GATS (General Agreement on Trade in Services) – Role of Planners in Consultancy and Advisory – Role of Planners in Research & NGOs – Role of Planners as Entrepreneurs.

Learning Resources

1. Yescombe, E.R. (2011), *Public-Private Partnerships: Principles of Policy and Finance*, Elsevier, Oxford.
2. Asian Development Bank (2020), *Public–Private Partnership Handbook*, ADB, Manila.
3. United Nations (2007), *Public-Private Partnerships for Service Delivery*, UNESCAP, Bangkok.
4. ULI, Public-Private Partnerships in Sustainable Urban Development
5. Planning and Appraisal Recommendations for Megaproject Success
6. Project management Body of Knowledge
7. Projects: Planning, Analysis, Solution, Financing, Implementation and Review

Course Contents and Lecture Schedule

Module No	Topic	Hours	COs
1	**Project formulation**	**9**	
1.1	Project Formulation and Appraisal Relationship between projects and planning issues including sectoral policy at:	1	CO1, CO2,

	Local, State and National levels Project appraisal		CO3
1.2	Market analysis – Macro environment survey, survey methods, market characterization, demand forecasting;	2	CO3
1.3	Technical Analysis – Magnitude, processes, materials, equipment, factors of production availability, implementation schedule	2	CO3, CO5
1.4	Suitability of the plans, layout and design, location of the project; location analysis; supporting infrastructure requirements	2	CO4
1.5	Capital Budgeting – Estimation of costing of components; developing over project cost; Social cost benefit analysis	2	CO4, CO5
2	**Planning and Public Sector**	**6**	
2.1	Planning at national level, interstate level, state government level, district level, metropolitan level, and local level	2	CO2, CO4
2.2	Consultancy practice in the public sector; Procurement of goods, works, consulting services, and non-consulting services	2	CO2
2.3	Role of government as a facilitator; Bid Process and Its Management; E-tendering.	2	CO4
3	**Private Sector Collaboration in Planning**	**6**	
3.1	Initiation of the Private Sector in Planning Practice; Need for private sector involvement Types of private sector participants, consultants, contractors, and developers; Systems of private sector participation	2	CO2, CO5
3.2	Developing Terms of References (TOR); Drafting Expression of Interest (EOI).	2	CO1, CO6, CO5
3.3	Professional Practice in the Joint Sector; Understanding Joint sector; Public-private partnership; Models of PPP (case-based approach); Drafting Request for Proposal (RFP); Drafting a Concession Agreement.	2	CO2, CO4, CO5
4	**Assessment frameworks**	**4**	
4.1	Prefeasibility Study, Feasibility study, Detailed Project Report, Cost Benefit Analysis, Break-even Analysis, Variance Analysis, Trend Analysis, Risk Assessment	2	CO5, CO6
4.2	Environmental and Social Impact Assessment: Concept and application, Environmental clearance processes for planning and building approvals: Legal Mandates	2	CO5, CO6
4.3	*Exercises: for understanding scales- mega infrastructure projects, mid-scale urban redevelopment projects and neighborhood level interventions; for understanding stakeholders - public sector, PPP, private sector*	1	CO5, CO6
5	**Global Perspectives in Contemporary Planning Practice**	**4**	
5.1	International Urban Planning Practice: Effect of liberalization, privatization, and globalization on planning practice	1	CO6
5.2	Models of the supply of services; Understanding GATS (General Agreement on Trade in Services);	1	CO5, CO6
5.3	Role of Planners in Consultancy and Advisory; Role of Planners in Research & NGOS; Role of Planners as Entrepreneur.	2	CO1, CO6

Course Designers:

1 Gayathri Suresh

.

24UP430	TRANSPORTATION PLANNING

Category	L	T	P	Credit
CFC	1	0	1	2

Preamble

This syllabus equips students with a comprehensive understanding of transportation infrastructure and urban planning. It covers the historical evolution of roads, transportation development processes, street amenities design principles, transit-oriented development, and road performance and safety considerations. Through theoretical concepts and practical case studies, students will explore key principles, techniques, and strategies essential for effective transportation planning and infrastructure management in urban environments.

Prerequisite

Nil

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Define and understand the fundamental concepts of transportation infrastructure and planning.	20 Understand
CO2	Understand the historical evolution and trends in transportation infrastructure.	10 Understand
CO3	Understand the street amenities considering accessibility, safety, comfort and aesthetics	10 Understand
CO4	Apply transportation planning elements and methodologies to address real-world problems.	20 Apply
CO5	Evaluate different phases of transportation transformation and their significance	20 Analyse
CO6	Implement and manage transportation projects effectively, including transit-oriented development and demand management techniques.	20 Analyse

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	-	M	L	M
CO2	S	M	M	L	M
CO3	S	M	M	L	S
CO4	S	-	M	M	S
CO5	S	-	S	M	S
CO6	M	M	S	M	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	Assignment - I				Assignment - II				Terminal			
TPS Scale	1	2	3	4	1	2	3	4	1	2	3	4
CO1		50								20		
CO2										10		
CO3						50				10		
CO4			50								20	
CO5								50				
CO6												20
												20

Syllabus

INTRODUCTION- Definition-objectives-Key principles-historical evolution of roads, and transport facilities -Travel pattern and trends -Phases of Transformation-(Freeeway or, Expressway, Highway, Arterial road, Collector Road, Local street) **TRANSPORTATION DEVELOPMENT AND PROCESS-** Elements of Transportation planning- Situation definition- Problem definition- Search for solution- Analysis of performance- Evaluation of Alternatives- Choice of Project- Specification and construction - Travel demand management (TDM) - Concept - Need - Demand Management Techniques.**STREET AMENITIES-** Design Principles for Street Amenities: Accessibility, Safety, Comfort, and Aesthetics with examples - Different utilities and services – street design for storm water and solid waste management- road infrastructure facilities - public plaza - Road user facilities - Parking facilities - Cycle tracks - Pedestrian facilities.**TRANSIT ORIENT DEVELOMENT-** Introduction - Definition- Principles - parameter- - Types (Single node , Multi node , Corridor node) - Basic structure - walk, cycle, public transport, mix, densify , shift - case studies (national and international case studies - implementation and benefits)**ROAD PERFORMANCE AND SAFETY** Planning aids -Alignment - Design speed - Slope ratio - Camber - Shoulders - Foot ways - Channelizing island - Junction and its types - Krebs - Clearance - Bus bays - Super elevation and widening of curves - Sight distance - Roundabouts - Signages (Traffic sign, Inflamatory sign, Direction sign, Warning sign, Regulatory sign, Sign of order) – Street layout (pattern and typology)

Learning Resources

1. Banister, David (2002), Transport Planning: Theory and Practice, Routledge, London.
2. Button, Kenneth (2010), Transportation Economics, Edward Elgar Publishing, Cheltenham.
3. Vuchic, Vukan R. (2005), Urban Transit: Operations, Planning, and Economics, Wiley, Hoboken.
4. Attard, Maria and Corinne Mulley (2018), Sustainable Urban Transport, Emerald Publishing, Bingley.
5. Gehl, Jan (2010), Cities for People, Island Press, Washington, D.C.
6. Levinson, David (2017), The End of Traffic and the Future of Transport, Network Design Lab, Minneapolis.
7. Martens, Karel (2016), Transport Justice: Designing Fair Systems, Routledge, London.

8. Institute of Transportation Engineers (ITE) (2022), Transportation Planning Handbook, 7th ed., Wiley, Hoboken.
9. Reid, Carlton (2015), Roads Were Not Built for Cars, Island Press, Washington, D.C.
10. Cascetta, Ennio (2009), Transportation Systems Analysis: Models and Applications, Springer, New York.
11. Miller, Harvey J. (2019), GIS for Transport Planning, Cambridge University Press, Cambridge.
12. Hensher, David A. (2021), Big Data and Mobility as a Service: Modeling and Applications, Elsevier, Amsterdam.
13. Vanderbilt, Tom (2008), Traffic: Why We Drive the Way We Do (and What It Says About Us), Knopf, New York.
14. Curtis, Carey (2009), Transit-Oriented Development: Making it Happen, Ashgate Publishing, Farnham.
15. Shoup, Donald (2005), The High Cost of Free Parking, American Planning Association, Chicago.

Course Contents and Lecture Schedule

Module No	Topic	No. of Lecture Hours	Course Outcome
1	**Introduction to Urban Transportation Planning**	**4**	
1.1	Definition and Objectives, Key Principles. Historical Evolution of Roads and Transport Facilities.	1	CO1, CO2
1.2	Travel Pattern and Trends.	1,	CO3, C04
1.3	Modes of transportation	1	CO3, C04
1.4	*Exercise: how does the student commute, what are the challenges etc. so that the point of an integrated approach gets well entrenched in their minds*	1	CO3, C04
2	**Transportation Development and Process**	**7**	
2.1	Elements of Transportation Planning	2	CO5, C03, CO6
2.2	Situation Definition, Problem Definition, Search for Solution.	2	CO4, CO1
2.3	Analysis of performance, evaluation of alternatives	2	CO2, CO5
2.4	Types of Surveys: Traffic Count Volume, Road Inventory, Origin destination, Speed and Delay Survey	1	CO2, CO4, CO6
3	**Street Amenities**	**6**	
3.1	Design Principles for Street Amenities	1	CO2
3.2	Accessibility, Safety, Comfort, and Aesthetics with Examples	2	CO3, CO5
3.3	Different Utilities and Services, Street Design for Stormwater and Solid Waste Management, Road Infrastructure Facilities, Public Plaza and Road User Facilities	2	CO1, CO4, CO6
3.4	Hierarchy of Roads, Grid of Roads	1	CO1, CO4, CO6
4	**Transit-Oriented Development**	**6**	
4.1	Introduction and Definition, Principles and Parameters, Types of Transit-Oriented Development.	2	CO1, C04

4.2	Basic Structure and Strategies (walk, cycle, public transport, mix, densify, shift).	2	CO2, CO5
4.3	Case Studies (National and International)	2	CO3, CO1
5	**Road Performance and Safety**	**7**	
5.1	Planning Aids and Alignment, Design Speed, Slope Ratio, Camber, Shoulders, Footways, Channelizing Island, Junction Types, Clearance, Bus Bays	3	CO2, CO4, CO6
5.2	Super Elevation and Widening of Curves, Sight Distance, Roundabouts, Signages (Types and Functions).	2	CO1, CO5
5.3	Street Layout (Pattern and Typology)	1	CO3, CO5
5.4	Automated Systems and Traffic Management	1	CO3, CO5

Course Designers:

1.K.B. Pasupathy

24UP440	PLANNING RESEARCH AND PROJECT

Category	L	T	P	Credit
PCC	0	4	14	14

Preamble

The planning thesis studio is the culmination of the journey of planning education that encapsulates the ability to address the needs of urban planning problems and propose the befitting solutions and plan for a resilient urban space.

Prerequisite

Nil

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Demonstrate a comprehensive understanding of urban planning theories, policies, and frameworks relevant to the chosen thesis topic.	10 Understand
CO2	Apply appropriate urban planning methodologies, tools (e.g., GIS, statistical analysis, spatial modeling), and regulatory frameworks to investigate a specific urban planning challenge.	10 Apply
CO3	Analyze urban data (demographic, environmental, infrastructural) to identify patterns, trends, and key factors influencing urban development in the study area.	20 Analyse
CO4	Critically evaluate existing urban policies, plans, and interventions, assessing their effectiveness, sustainability, and equity implications.	20 Evaluate
CO5	Develop a well-structured, evidence-based urban planning proposal or policy recommendation that addresses a specific urban issue, incorporating sustainability and inclusivity principles.	30 Create
CO6	Effectively communicate research findings through a professionally written thesis, visual representations (maps, diagrams), and oral presentations tailored to academic and professional audiences.	10 Analyse

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	-	M	M	L
CO2	S	S	M	M	M
CO3	S	S	S	S	M
CO4	M	-	M	S	S
CO5	M	S	S	S	S
CO6	L	L	M	M	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CA(Review)						Terminal					
TPS Scale	1	2	3	4	5	6	1	2	3	4	5	6
CO1		10						10				
CO2			10						10			
CO3				20						20		
CO4					20						20	
CO5						30						30
CO6				10						10		

Syllabus

The students shall work on a project of their area of interest in the field of Urban planning. The thesis is the culmination of the journey of planning education that encapsulates the ability to address the needs of urban planning problems and propose the befitting solutions and plan for a resilient urban space. Students should decide on a thesis topic of their choice in terms of issues in urban planning with sustainable approach.

Learning Resources

1. The Death and Life of Great American Cities – Jane Jacobs (1961)
2. The Urban Revolution – Henri Lefebvre (1970)
3. SPSS/SAS for Planners – Andy Field (2021)
4. Urban Analytics – Alex Singleton (2019))
5. Triumph of the City – Edward Glaeser (2011)
6. Conflicts in Urban Development – Frank Schnitzer (2019)
7. Mapping Urban Data – Laura Kurgan (2013).
8. Pineda, V.S. (2019) Building the Inclusive City: Governance, Access, and the Urban Transformation of Dubai, Palgrave Macmillan, London
9. Stephanidis, C. (2017) The Universal Access Handbook, CRC Press, Boca Raton, Florida.
10. The New Urban Crisis – Richard Florida (2017).
11. Bednar, M.J., Barrier Free Environments. Harkness, S., Building without Barriers for the Disabled.

List of Experiments/Activities with CO Mapping

Phases	Deliverables	Marks	Course Outcome
Week1-4	**Proposal Development**	100	
Week1	**Topic Selection:** Identifying gaps in urban planning literature/practice.	25	CO1
Week 2	**Literature Review:** Synthesizing theories, case studies, and policies.	25	CO1
Week 3	**Research Design:** Choosing methods (e.g., GIS, surveys, interviews, data analysis).	25	CO2
Week 4	**Proposal Submission:** Written document with objectives, methodology, and timeline	25	CO6
Week 5-8	**Data collection and Analysis**	100	

Week 5	**Primary/Secondary Data:** Fieldwork, spatial analysis, or archival research.	25	C02, CO3
Week 6	**Ethical Considerations:** Permissions, privacy, and bias mitigation.	25	CO3
Week 7 & 8	**Preliminary Findings:** Interim report to advisor.	50	CO2, CO3,CO4
Review 1	**Week 1-8**	100	
Week 9-12	**Writing & Synthesis**	100	
Week 9	**Structuring the Thesis:** Introduction, literature review, methodology, results, discussion.	25	CO1,CO2,CO6
Week 10 & 11	**Visual Communication:** Maps, graphs, and diagrams to support arguments.	50	CO2,CO5,CO6
Week12	**Draft Submission:** Feedback loops with advisor.	25	CO6
Week13-16	**Finalization**	100	
Week 13 & 14	**Revision:** Incorporating feedback.	50	CO1,C04
Week 15 & 16	**Thesis Submission:** Final proofreading and formatting.	50	CO1,CO5,CO6
Review 2	Thesis defense in front of committee	100	

Course Designers:

1.Pasupathy.K.B

24UPFA0	URBAN DESIGN	Category	L	T	P	Credit
		EFC	2	-	-	2

Preamble

This syllabus provides a comprehensive overview of urban design, spanning its foundations, theories, thinkers, and contemporary processes. It delves into the origin, scope, and objectives of urban design, exploring its relationship with architecture and urban planning. The curriculum explores tangible and intangible factors influencing urban design theories, including human perception, safety, and community. It highlights key urban design thinkers such as Kevin Lynch, Jane Jacobs, and Christopher Alexander, examining their contributions to the field. Additionally, it addresses contemporary processes like globalization, smart growth, and digital tools, alongside case studies from around the world

Prerequisite

NIL

Course Outcomes

On the successful completion of the course students will be able to

CO Number	Topics Covered	Weightage*** Percentage (%)
CO1	Origin and Scope of Urban Design; Relation with Architecture and Urban Planning	Understand-20%
CO2	Tangible and Intangible Factors in Urban Design Theories and Principles, Theories of Place Making; Privacy, Territoriality, Proxemic Theory	Understand-20%
CO3	Perception of City Form and Pattern; Mental Mapping – Understanding and remembering the city	Analyze-15%
CO4	Understanding the Urban design process(Residential, Commercial, Parks, Industrial)	Analyze-15%
CO5	Comparision of National and International Urban design and Intervention	Apply-20%
CO6	Critical assess to the role of digital tools in urban design processes and challenges of contemporary urban design projects.	Evaluate-10%

CO Mapping with CDIO Curriculum Framework

CO #	TCE Proficiency Scale	Learning Domain Level			CDIO Curricular Components (X.Y.Z)
		Cognitive	Affective	Psychomotor	
CO1	TPS2	Understand	Respond	Guided Response	1.1, 2.3.1, 2.3.2, 2.3.4 4.1.1, 4.1.2, 4.1.3, 4.1.6, 4.2.1
CO2	TPS2	Understand	Respond	Guided Response	1.1, 2.3.1, 2.3.2, 2.3.4 4.1.1, 4.1.2, 4.1.3, 4.1.6, 4.2.1

CO3	TPS2	Understand	Respond	Guided Response	1.1, 2.3.1, 2.3.2, 2.3.4 4.1.1, 4.1.2, 4.1.3, 4.1.6, 4.2.1
CO4	TPS3	Apply	Value	Mechanism	1.1,1.2,1.3, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.4.4, 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 4.4.6
CO5	TPS3	Apply	Value	Mechanism	1.1,1.2,1.3, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.4.4, 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 4.4.6
CO6	TPS4	Analyse	Organise	Complex Overt Responses	1.1, 1.2, 1.3, 2.3.1, 2.3.3, 2.4.1, 2.4.2, 2.4.3, 2.4.4, 2.4.5, 2.4.6, 2.4.7, 3.1.4, 4.1.2, 4.1.3, 4.1.4, 4.1.5

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	L	L	L	M
CO2	S	L	L	L	M
CO3	S	L	L	L	M
CO4	S	L	M	S	S
CO5	S	L	M	S	S
CO6	S	L	M	S	S

S- Strong; M-Medium; L-Low

Assessment Method: Cognitive domain

Cognitive levels	**Continuous Assessment Tests**		**Assignment**		**Terminal Examination**
	1	**2**	**1**	**2**	**-**
Understand	40	40	-	-	40
Apply	20	20	40	40	20
Analyse	30	30	60	60	30
Evaluate	10	10	-	-	10
Create	-	-	-	-	-

Assessment Method :psychomotor

Psychomotor Skill	**Miniproject /Assignment/Practical Component**
Perception	-
Set	-
Guided Response	40
Mechanism	20
Complex Overt Responses	30
Adaptation Origination	10

Sample Questions for course outcome Assessment

Course Outcome 1 (CO1):

1) What are the origins and primary goals of urban design?
2) How does urban design collaborate with architecture and urban planning?
3) Explain the scope and objectives of urban design.

Course Outcome 2 (CO2):

1) How do tangible factors shape urban design theories and principles?
2) Why is emotional resonance crucial in urban design planning?
3) Explain the significance of spatial memory in urban environments.

Course Outcome 3 (CO3):

1. How does perception influence the interpretation of city form?
2. Explain the role of mental mapping in navigating urban spaces.
3. What factors contribute to individuals' mental representations of cityscapes?

Course Outcome 4 (CO4):

1. How does globalization influence contemporary urban design processes?
2. What are the key principles of New Urbanism movement?
3. Explain the role of smart growth in urban development.

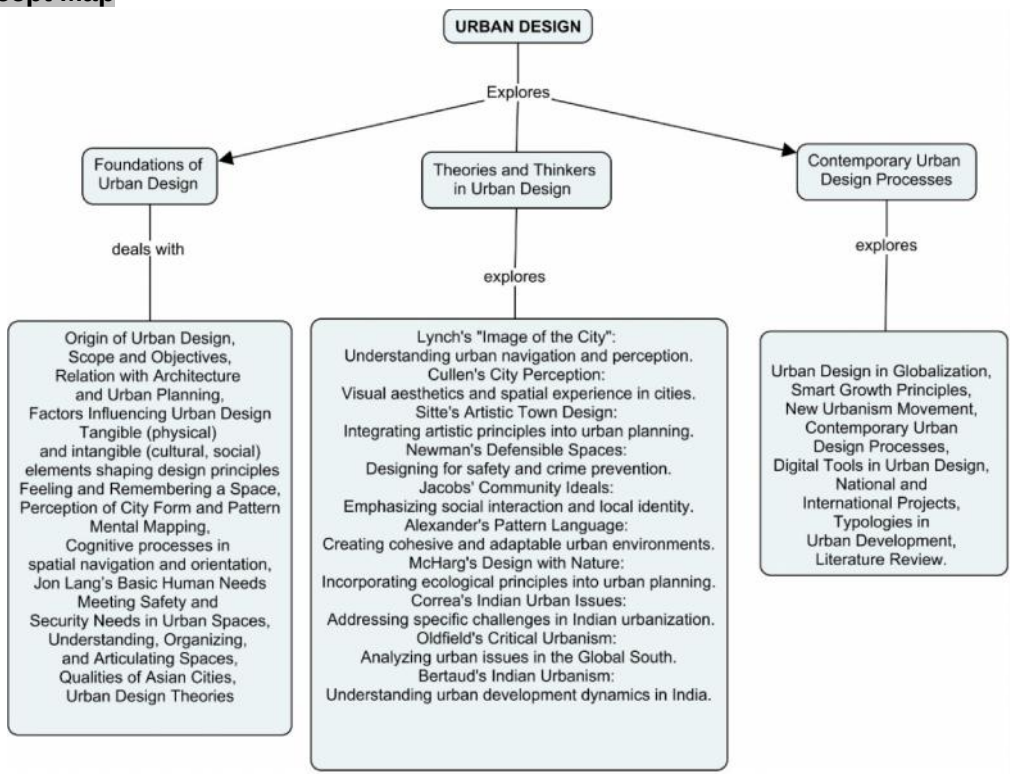
Course Outcome 5 (CO5):

1. Evaluate the effectiveness of digital tools in commercial space development.
2. Discuss national and international approaches to public space development.
3. Examine trends in city planning strategies using digital innovations.

Course Outcome 6 (CO6):

1. How do digital tools enhance contemporary urban design processes globally?
2. Analyze the role of technology in riverfront development projects worldwide.
3. Compare and contrast urban design literature across diverse global contexts.

Concept Map



Syllabus

Foundations of Urban Design - Origin of urban Design, Scope and objectives of urban design; its relation with architecture and urban planning. The various tangible and intangible factors which as basis for urban design theories and principles - Feeling and remembering a space - Perception of city form and pattern - Mental mapping - Jon Lang's Basic Human Needs – Meeting Safety Security Needs in Urban Spaces - Understanding, organizing and articulation of spaces of Residential, Commercial, Parks and Industrial spaces - Qualities of Asian Cities Urban Design Theories .**Theories and Thinkers in Urban Design** -Kevin Lynch's Image of the city,, Gordon Cullen and his city perception, Camillo Sitte and his artistic principles of town design, Oscar Newmans concepts of Defensible spaces , Jane Jacobs and her ideas of community, Christopher Alexander's pattern language of community living, Ian L.McHarg and His Design with Nature, Charles Correa and his essays on the issues of India, Sophie Oldfield's Critical urbanism and the Global South - Alain bertaud'sindian urbanism. Place making-Place theory, linkage theory etc,- - Privacy, Territoriality and Proxemic theory, Urban scale; Intimate, Urban and Monumental. Human scale and Generic scale in Urban Design. **Contemporary Urban Design Processes-** Urban design process in the era of globalization and smart growth – New Urbanism. Types of Urban design Interventions and objectives – Urban Renewal, Redevelopment, Rehabilitation, Clearance, Decentralisation, Conservation - Generic types of Urban Design Procedures – Total, All in a piece, Piece by piece and Plug in.Contemporary urban design processes and digital tools in urban design- Literature review of National and International projects in various typologies i.e, city planning, commercial space development, Public space development , River front development across the globe.

Course content and Lecture shedule

Module	Topics	Hours	Course Outcome
1	**Foundations of Urban Design**	**7**	
1.1	Origin, Scope, and Objectives of Urban Design	1	CO 1
1.2	Tangible and Intangible Factors in Urban Design	1	CO2
1.3	Feeling and Remembering a Space; Perception of City Form and Pattern; Mental Mapping	2	CO3
1.4	Jon Lang's Basic Human Needs; Meeting Safety and Security Needs in Urban Spaces	1	CO2
1.5	Understanding, Organizing, and Articulation of Spaces: Residential, Commercial, Parks, Industrial	2	CO3
1.6	Qualities of Asian Cities	2	CO1
2	**Theories and Thinkers in Urban Design**	**11**	
2.1	Kevin Lynch's Image of the City - Gordon Cullen and City Perception	2	CO1
2.2	Camillo Sitte and Artistic Principles of Town Design - Oscar Newman's Concepts of Defensible Spaces	2	CO1
2.3	Jane Jacobs and Community-Christopher Alexander's Pattern Language of Community Living - Ian L. McHarg and Design with Nature	1	CO1

2.4	Charles Correa's Essays on Issues of India - Sophie Oldfield's Critical Urbanism and the Global South;	1	CO2
2.5	Sophie Oldfield's Critical Urbanism and the Global South	1	CO2
2.6	Alain Bertaud's Indian Urbanism	1	CO2
2.7	Place Making-Place Theory, Linkage Theory -Privacy, Territoriality, and Proxemic Theory; Urban Scale: Intimate, Urban, Monumental- Human Scale and Generic Scale in Urban Design	3	CO2
3	**Contemporary Urban Design Processes**	**12**	
3.1	Types of Urban design Interventions and objectives – Urban Renewal, Redevelopment, Rehabilitation, Clearance, Decentralisation, Conservation Generic types of Urban Design Procedures – Total, All in a piece, Piece by piece and Plug in	3	CO4
3.2	Urban Design Process in the Era of Globalization and Smart Growth; New Urbanism	2	CO4
3.3	Contemporary Urban Design Processes and Digital Tools	3	CO5
3.3	Literature Review of National and International Projects: City Planning, Commercial Space Development, Public Space Development, Riverfront Development	4	CO6
	TOTAL HOURS	**30**	

Sample Assignments

Module No.	Topic	Course Outcome
1	Explore diverse urban theorists such as Kevin Lynch, Jane Jacobs, and Christopher Alexander, examining concepts like community, urban design, and nature in concise, engaging book reviews for student comprehension and reflection.	CO1, CO2, CO3
2	Group Projects: Analyze different master plans of any one world and document the effectiveness of various planning strategies employed over time.	CO4, CO5, CO6

Learning Resources

1. Paul. D. Spriregen, "On the art of designing cites" M.I.T. Press, Cambridge 1968
2. Lynch. Kevin, "The Image of the city" M.I.T. Press Cambridge 1960
3 Gordon Cullen - The concise TOWNSCAPE - The Architectural Press - 1978.
4. Bacon. Edmund "Design of Cities", Thames & Hudson, London, 1967
5. Urban Design – A typology of procedures and products – Jon Lang
6. Urban open spaces – Helen Woolley
7. Safe cities – Gerda R. Wekerle
8. Urban Design – Jon Lang and others

Course Designer :

1. Ar.Ragul.S - srlarch@tce.edu
2. Ar. Geo. A - agarch@tce.edu

24UPFC0	URBAN HERITAGE CONSERVATION

Category	L	T	P	Credit
EFC	2	0	0	2

Preamble

This syllabus helps students gain a comprehensive understanding of heritage conservation and management, focusing on the conceptual and legal frameworks for preserving heritage areas. They will learn about the significance and potential of heritage areas in India, including the role of urban local bodies and relevant policies. The course will cover practical aspects like integrated urban conservation, heritage resource documentation, and disaster preparedness. Students will also explore the development of comprehensive conservation plans and heritage management strategies, emphasizing participatory management, economic considerations, and capacity building for effective implementation.

Prerequisite

Nil

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Grasp the conceptual, legal, and international frameworks for integrated conservation and development, and understand their applications in urban and rural heritage management.	20 Understand
CO2	Understand the types, significance, and potential of heritage areas in India, along with the roles and responsibilities of local bodies in heritage conservation.	10 Understand
CO3	Learn to integrate heritage conservation within urban master plans and development projects, focusing on policies like JNNURM and tools like Heritage Impact assessments.	10 Understand
CO4	Identify, document, and manage heritage areas, including developing heritage resource databases and conservation guidelines.	20 Apply
CO5	Design and implement comprehensive conservation and heritage management plans, aligning with cultural landscapes and regional needs.	20 Analyse
CO6	Assess and manage the impact of disasters on heritage sites, including conducting Heritage and Archaeological Impact Assessments.	20 Analyse

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	-	S	S	M
CO2	M	L	S	M	M
CO3	S	M	M	M	M
CO4	M	-	L	S	S
CO5	M	-	M	M	S
CO6	L	L	M	M	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CO1		20				50				20								20		
CO2		10								10								10		
CO3		10								10				50				10		
CO4			20				50				20								20	
CO5				20								20				50				20
CO6				20								20								20

Syllabus

Planning for heritage areas – conceptual & legal framework Evolution of concept of integrated conservation and development, planning for areas of heritage significance; Value based approach to heritage management and urban conservation; International obligations and National Policy and Legislation for heritage conservation and management. **Heritage areas in India** – resource significance & potential Types of heritage areas in India and their significance and potential today; Responsibilities of the urban local bodies and relevance of the 74th Amendment 12th schedule for heritage conservation, interface with district planning & metropolitan area planning; participatory heritage management; financing of heritage conservation heritage values; economic imperatives an implications for heritage management, heritage tourism. **Integrated urban conservation & heritage management -** process Identification, delineation and designation of heritage areas; Listing, documentation and heritage resource database development; Conservation and development guidelines for heritage areas; Integration of heritage conservation zones into master plans; Preparation of City Development Plans and DPR's in the heritage management and conservation sector under the JNNURM programme, Heritage Toolkit; Disaster preparedness for urban heritage areas; Methods for 'Heritage Impact Assessment' and 'Archaeological Impact Assessment'. **Comprehensive conservation plans & heritage management plans** - Holistic approach to conservation and management of urban and rural heritage, cultural landscapes and cultural regions; Goals and objectives of comprehensive conservation plans and heritage management plans; Plan implementation and capacity building for heritage management.

Learning Resources

1. Rodwell, D. (2007), The Conservation of Historic Cities, Oxford: Blackwell Publishing.
2. Kalman, H. (2014), Heritage Planning: Principles and Process, New York: Routledge.
3. UNESCO (2010), Managing Historic Cities: World Heritage Papers 27, Paris: UNESCO World Heritage Centre.
4. Lowenthal, D. (1985), The Past is a Foreign Country, Cambridge: Cambridge University Press.
5. Rodwell, D. (2018), Conservation and Sustainability in Historic Cities, Oxford: Wiley-Blackwell.
6. Lowenthal, D. (1998), The Heritage Crusade and the Spoils of History, Cambridge: Cambridge University Press.
7. Ashurst, J. (2006), Conservation of Ruins, Oxford: Butterworth-Heinemann.

8. Avrami, E. (Ed.) (2019), Values in Heritage Management: Emerging Approaches and Research Directions, Los Angeles: Getty Conservation Institute.
9. Hebel, D., Heisel, F., and Javadian, A. (2017), Adaptive Reuse of Historic Buildings: Materials, Techniques, and Examples, Basel: Birkhäuser.
10. ICOMOS (1964), The Venice Charter (and Other Key International Documents on Heritage), Paris: ICOMOS.
11. Nafziger, J. A. R. (2021), Heritage Law and Policy: International and Comparative Approaches, Cheltenham: Edward Elgar Publishing.
12. UNESCO (2007), World Heritage: Challenges for the Millennium, Paris: UNESCO World Heritage Centre.
13. Bandarin, F., and van Oers, R. (2012), The Historic Urban Landscape: Managing Heritage in an Urban Century, Chichester: Wiley-Blackwell.
14. Silva, K. D. (2019), Conserving Asian Urban Heritage: Challenges and Approaches, New York: Routledge.
15. Macdonald, S. (Ed.) (2001), Preserving Post-War Heritage: The Care and Conservation of Mid-Twentieth Century Architecture, Shaftesbury: Donhead Publishing.
16. Labadi, S., and Long, C. (2010), Heritage and Globalization, London: Routledge.

Course Contents and Lecture Schedule

Module No	Topic	No. of Lecture Hours	Course Outcome
1	**Planning for heritage areas**	7	
1.1	Conceptual & legal framework Evolution of concept of integrated conservation and development.	3	CO1
1.2	Planning for areas of heritage significance; Value based approach to heritage management and urban conservation	2	CO2
1.3	International obligations and National Policy and Legislation for heritage conservation and management.	2,	CO3,C04
2	**Heritage areas in India**	8	
2.1	Resource significance & potential, Types of heritage areas in India and their significance and potential today.	2	CO5, C03
2.2	Responsibilities of the urban local bodies and relevance of the 74th Amendment 12th schedule for heritage conservation, interface with district planning & metropolitan area planning.	3	CO4, CO1
2.3	Participatory heritage management; financing of heritage conservation heritage values; economic imperatives and implications for heritage management, heritage tourism.	3	CO2, CO5,CO6
3	**Integrated urban conservation & heritage management process**	8	
3.1	Identification, delineation and designation of heritage areas; Listing, documentation and heritage resource database development: State and National level	3	CO2
3.2	Conservation and development guidelines for heritage areas; Integration of heritage conservation zones into master plans	2	CO1,CO5

3.3	Preparation of City Development Plans and DPR's in the heritage management and conservation sector under the AMRUT, HRIDAY programme, Heritage Toolkit; Disaster preparedness for urban heritage areas; Methods for 'Heritage Impact Assessment' and 'Archaeological Impact Assessment'.	2	CO3, CO4, CO6
3.4	Inter departmental co-ordination for sustainable implementation of Heritage plans	1	CO3, CO4, CO6
4	**Comprehensive conservation plans & heritage management plans**	7	
4.1	Holistic approach to conservation and management of urban and rural heritage, cultural landscapes and cultural regions.	3	CO1,C04
4.2	Goals and objectives of comprehensive conservation plans and heritage management plans.	2	CO2,CO5
4.3	Plan implementation and capacity building for heritage management.	2	CO1,CO6

Course Designers:

1.K.B.Pasupathy

24UPPAO	INCLUSIVE PLANNING

Category	L	T	P	Credit
PE	2	0	0	2

Preamble

The course enables the students to familiarize with need, challenges, issues, objectives, framework, process and techniques of inclusive urban planning and development. Through study of theoretical perspectives, guidelines, standards, operational policies, and good practices, the course underscores crucial elements in planning for inclusivity, with a focus on people from vulnerable groups (People with Disabilities, Elderly, Children, Women). Based on the foundational principles of equity and the right to the city, this course provides a holistic framework for the analysis and resolution of urban disparities.

Prerequisite

Nil

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Understand the concept of inclusive growth, its key dimensions (social, economic, spatial), and its significance in urban development.	10 Understand
CO2	Describe the roles and challenges of disadvantaged groups (urban poor, women, disabled, informal workers) in shaping inclusive cities.	10 Understand
CO3	Use participatory planning tools (e.g., community mapping, stakeholder consultations) to assess gaps in access to shelter, services, and livelihoods.	20 Apply
CO4	Implement inclusive zoning principles to design a mixed-use neighborhood that accommodates informal sector activities and affordable housing.	20 Apply
CO5	Compare global and Indian best practices to identify successful strategies for inclusive urban development..	20 Analyse
CO6	Examine the impact of informal sector linkages (economic, spatial) on formal urban systems and propose integration measures.	20 Analyse

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	-	S	S	M
CO2	M	L	S	M	M
CO3	S	M	M	M	M
CO4	M	-	L	S	S
CO5	M	-	M	M	S
CO6	L	L	M	M	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CO1		20				50				20								2		
CO2		10								10								1		
CO3		10								10				50				1		
CO4			20				50				20								20	
CO5				20								20				50				20
CO6				20								20								20

Syllabus

Importance of Inclusive Development – Urban development patterns, inequities and need for Inclusive development; Growth of informal sector, Needs, access to shelter, services and livelihoods of informal sector; Understanding inclusive growth concept, theories and components; essential dimensions of inclusive planning. **Stakeholders in Inclusive Urban Development** – Disadvantaged groups –urban poor, informal sector, gender, children, elderly, disabled, displaced people; Causative factors, determinants, informal sector location characteristics, functions, economic contributions; Linkages with formal sector; impact of informal sector on urban development. **Principle of Inclusive City Planning -** Inclusive city planning- Need, concept and pre-requisites, Affordable housing; resilient and sustainable urban form; social and economic development; key principles Sustainability and Resilience, Accessibility, Diversity, Open Spaces, Compatibility, Incentives, Adaptability and Identity; Importance of participatory planning for inclusive development; approaches and methods, of participatory planning, role of stakeholders (including civil society organizations), constraints, pre-requisites **Management of Inclusive Cities** - Management of inclusive cities- need and approaches- Inclusive zoning, development and building regulations, slum improvement; related acts; five year plans, policies and programmes.; Policies for inclusive city planning; Best practices of inclusive Planning in India and abroad- planning approach, procedures and impacts, inter-disciplinary policy issues, public action and participation for guiding inclusive planning in cities

Learning Resources

1. Asian Development Bank (2021), Inclusive Cities—Urban Area Guidelines, ADB, Manila. [Available online: https://www.adb.org/sites/default/files/publication/776806/inclusive-cities-urban-area-guidelines.pdf]
2. Asian Development Bank (2021), AASCTF Gender Equality and Social Inclusion Strategy, ADB, Manila. [Available online: https://www.adb.org/sites/default/files/institutional-document/729371/aasctf-gender-equality-socialinclusion-strategy.pdf]
3. Ministry of Housing and Urban Affairs (MoHUA) (2021), Harmonised Guidelines & Standards for Universal Accessibility in India, Government of India, New Delhi. [Available online: https://cpwd.gov.in/Publication/HarmonisedGuidelinesUA2021.pdf]
4. Government of India (2016), Rights of Persons with Disabilities Act (RPwD), No. 49 of 2016, Legislative Department, Ministry of Law and Justice, New Delhi. [Available online: https://lddashboard.legislative.gov.in/sites/default/files/A2016-49_1.pdf]

5. Ministry of Housing and Urban Affairs (2021), Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines, Government of India, New Delhi.
6. National Institute of Urban Affairs and IIT Kharagpur (2021), Inclusive City Framework, NIUA, Ministry of Housing and Urban Affairs, New Delhi.
7. National Institute of Urban Affairs (2021), A Guide for Inclusive, Accessible, Safe and Resilient Urban Development, NIUA, New Delhi. [Available online: https://niua.in/intranet/sites/default/files/2346.pdf]
8. United Nations (2004), Accessibility for the Disabled: A Design Manual for a Barrier-Free Environment, Department of Economic and Social Affairs, New York. [Available online: http://www.un.org/esa/socdev/enable/designm/index.html]
9. Pineda, Victor Santiago (2019), Building the Inclusive City: Governance, Access, and the Urban Transformation of Dubai, Palgrave Macmillan, London.
10. Stephanidis, Constantine (2017), The Universal Access Handbook, CRC Press, Boca Raton, Florida.
11. Indian Building Congress (2012), Guidelines for Design of Universally Accessible Built Environment, Indian Building Congress, New Delhi.
12. Bednar, Michael J. (no date), Barrier-Free Environments, Dowden, Hutchinson & Ross, Stroudsburg.
13. Harkness, S. (no date), Building without Barriers for the Disabled, McGraw-Hill, New York.

Course Contents and Lecture Schedule

Module No	Topic	No. of Lecture Hours	Course Outcome
1	**Importance of Inclusive Development**	7	
1.1	Urban development patterns, inequities and need for Inclusive development.	3	CO1
1.2	Growth of informal sector, Needs, access to shelter, services and livelihoods of informal sector.	2	CO2
1.3	Understanding inclusive growth concept, theories and components; essential dimensions of inclusive planning. Inclusivity at Various stages of Planning	2,	CO1,C04,CO5
2	**Stakeholders in Inclusive Urban Development**	6	
2.1	Disadvantaged groups –urban poor, informal sector, LGBTQIA+, children, elderly, disabled, displaced people.	2	CO5, C02
2.2	Causative factors, determinants, informal sector location characteristics, functions, economic contributions.	2	CO3, CO1
2.3	Linkages with formal sector; impact of informal sector on urban development.	2	CO1, CO4,CO6
3	**Principle of Inclusive City Planning**	10	
3.1	Inclusive city planning- Need, concept and pre-requisites, Affordable housing; resilient and sustainable urban form; social and economic development; key principles.	4	CO1,CO4
3.2	Sustainability and Resilience, Accessibility, Diversity, Open Spaces, Compatibility, Incentives, Adaptability and Identity.	2	CO2,CO5
3.3	Importance of participatory planning for inclusive	4	CO3, CO6

	development; approaches and methods, of participatory planning, role of stakeholders (including civil society organizations), constraints, pre-requisites.		
4	**Management of Inclusive Cities**	7	
4.1	Management of inclusive cities- need and approaches- Inclusive zoning, development and building regulations, slum improvement; related acts; five year plans, policies and programs.	3	CO1, C04
4.2	Policies for inclusive city planning; Best practices of inclusive Planning in India and abroad- planning approach, procedures and impacts.	2	CO1, CO5
4.3	Inter-disciplinary policy issues, public action and participation for guiding inclusive planning in cities.	1	CO2, CO6
4.4	Failed Case examples	1	CO2, CO6

Course Designers:

1.K.B.Pasupathy

24UPPB0	POLITICS AND PLANNING

Category	L	T	P	Credit
PE	2	0	0	2

Preamble

This course is designed to develop an understanding of (a) the fundamental concepts of urban politics, governance, and spatial justice, (b) the impact of structural adjustments and contested urban spaces on socio-political dynamics, (c) the role of civil society, political movements, and participatory governance in shaping urban development, (d) the influence of spatial politics, environmental policies, and surveillance on public spaces and city planning, and (e) the application of critical urban theories and policy frameworks in analyzing mega projects, urban hegemony, and grassroots activism within city development.

Prerequisite

NIL

Course Outcome

On successful completion of the course, students will be able to

CO	Course Outcome	Weightage*** in %
CO1	Describe the fundamental concepts of urban politics, governance, and policy frameworks that influence city development and planning	20% Understand
CO2	Discuss the relationship between urbanization, structural adjustments, and the socio-political dynamics that shape contested cities	20% Understand
CO3	Identify the role of civil society, political society, and collaborative governance in promoting citizen participation and inclusive urban development	10% Understand
CO4	Examine spatial politics by evaluating the impact of public space policies, environmental concerns, and political movements on urban landscapes	20% Analyse
CO5	Demonstrate the application of critical urban theories to real-world case studies and analyze their implications on governance, activism, and policymaking	15% Apply
CO6	Use decision-making and problem-solving approaches to engage with urban policies, mega projects, and participatory planning frameworks	15% Apply

Mapping with Programme Outcomes and Programme Specific Outcomes

COs	PO1	PO2	PO3	PO4	PO5
CO1	S	L	M	L	L
CO2	S	L	M	M	L
CO3	M	L	S	M	M
CO4	M	L	M	S	L
CO5	S	M	M	M	S
CO6	M	M	S	M	S

S- Strong; M-Medium; L-Low

Assessment Pattern: Cognitive Domain

CO	CAT 1				Assignment - I				CAT 2				Assignment - II				Terminal			
TPS Scale	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CO1		30				30												20		
CO2		30				30												20		
CO3		30				30				20				20				10		
CO4												30				30				20
CO5											25				25				15	
CO6			10				10				25				25				15	

Syllabus

Introduction to Urban Politics and Society – Basic Concepts – Structural Adjustment and Cities – Contested Cities – Politics and Society – Postmodern Urbanism – Critical Urban Theory – Civil Society and Political Society – Collaborative Governance and Citizen Participation – Spatial Politics – Politics of Public Space Expenditure Pattern – Politics of Environment – Political Movements – Terrorism and Surveillance – Politics of Radical Movements – Social Movements – Case Studies: Chipko Movement, Narmada Movement, Wall Street Protest, Cochabamba Water Riot – Politics and Policy – Urban Policy and the Politics of Spatial and Temporal Scale – Power and Urban Hegemony – Capacity and Social Capital – Politics of Scale and Networks of Association in Public Participation GIS – Mega Projects and Politics of City Development.

Learning Resources

1. David Harvey, The Right to the City, Verso, 2008
2. Richard T. LeGates and Frederic Stout (Eds.), The City Reader, 6th edition, Routledge, 2016
3. Myron Levine, Urban Politics and Policy in the United States, 10th edition, Routledge, 2019
4. Bent Flyvbjerg, Mega-Projects and Risk: An Anatomy of Ambition, Cambridge University Press, 2003
5. Mike Davis, City of Quartz: Excavating the Future in Los Angeles, Verso, 2006
6. Robert D. Putnam, Bowling Alone: The Collapse and Revival of American Community, Simon & Schuster, 2001
7. James M. Jasper, Protest: A Cultural Introduction to Social Movements, Polity Press, 2014
8. Shoshana Zuboff, The Age of Surveillance Capitalism, PublicAffairs, 2019
9. Michael Batty, The New Science of Cities, MIT Press, 2013
10. David Harvey, *Rebel Cities: From the Right to the City to the Urban Revolution*, Verso, 2012
11. Arundhati Roy, *The Cost of Living*, Modern Library, 1999

Course Contents and Lecture Schedule

Module No	Topic	Hours	COs
1	**Introduction**	**6**	
1.1	Basic Concepts, Structural Adjustment and Cities;	3	CO1, CO2
1.2	Contested Cities	3	CO2
2	**Politics and Society**	**6**	
2.1	Postmodern Urbanism; Critical Urban theory	1	CO2
2.2	Civil Society and Political Society	2	CO3
2.3	Collaborative Governance and Citizen Participation	2	CO3, CO6

2.4	Relevant Issues in present Context: Environmental protests, Encroachment, Land acquisition etc.	2	CO3, CO6
3	**Spatial politics**	**6**	
3.1	Politics of Public space expenditure pattern	3	CO4
3.2	Politics of Environment	3	CO4, CO5
4	**Political Movements**	**6**	
4.1	Terrorism and surveillance, Politics of radical movements, Social Movements	3	CO3, CO5
4.2	Case Studies from : Chipko movement, Narmada movement, Wall Street Protest, Cochabamba water riot, etc.	3	CO3, CO5
5	**Politics and Policy**	**6**	
5.1	Urban policy and the politics of spatial and temporal scale; Power and urban hegemony; Capacity and social capital, Influence of Data and Technology in decision making	3	CO4, CO5
5.2	Politics of scale and networks of association in public participation; Mega projects and politics of city development.	3	CO5, CO6

Course Designers:

1. Gayathri Suresh