# **Masters in Urban Planning**

# (M. Plan)

**Two Year Full Time Post Graduate Programme** 

# **SYLLABUS**

# **School of Architecture and Planning**

2020 - 2022

### LINGAYAS VIDYAPEETH

#### SCHOOL OF ARCHITECTURE AND PLANNING

#### 2020 BATCH

	M. Plan , Semester - I, FIRST YEAR						
S.No.	Subject Code	Subject Name		L-T-P		Credit	Type of Course
1	MPL - 1101	Planning History and Theory	0	0	4	2	CC
2	MPL - 1102	Socio- Economic basis for Planning	0	0	4	2	СС
3	MPL - 1103	Planning Techniques	0	0	4	2	CC
4	MPL - 1104	Infrastructure and Transport Planning	0	0	4	2	СС
5	MPL - 1105	Housing and Environmental Planning	0	0	4	2	СС
6	MPL - 1106	Studio Course	0	0	4	2	CC
7	MPL - 1107	Studio	0	0	16	8	CC
		TOTAL Credit 20					

## LINGAYAS VIDYAPEETH SCHOOL OF ARCHITECTURE

#### 2020 BATCH

	M. Plan , Semester - II , FIRST YEAR					
S.No.	Subject Code	Subject Name	L-T-P	Credit	Type of Course	
1	MPL-1201	City and Metropolitan Planning	0-0-4	2	CC	
2	MPL-1202	Infrastructure Planning	0-0-4	2	CC	
3	MPL-1203	Sustainable Planning and Development	0-0-4	2	CC	
4	MPL-1204	Advanced Planning Techniques	0-0-4	2	CC	
5	MPL-1205	Urban Heritage Conservation	0-0-2	1	CC	
6	MPL-1206E	Planning for tourism				
7	MPL-1207E	Urban Information System and Spatial Analysis	0-0-2	·0-2 1	DSE	
8	MPL-1208E	Land Use and Transport Planning				
		A. Urban Planning Studio	0-0-16	8	СС	
9	MPL-1209	B. Geo-Informatics – II & Management and Governance Plan	0-0-2	2	СС	
TOTAL Credit 20						

### LINGAYAS VIDYAPEETH SCHOOL OF ARCHITECTURE AND PLANNING 2020 BATCH

	M. Plan , Semester - III , SECOND YEAR					
S.No.	Subject Code	Subject Name		Credit	Type of Course	
	MPL-2301	Urban Development Management and				
1	WIPL-2301	Governance	0-0-4	2	CC	
2	MPL-2302	Project Planning and Management	0-0-4	2	CC	
3	MPL-2303	Politics and Planning	0-0-2	1	CC	
4	MPL-2304	Development Finance	0-0-4	2	CC	
5	MPL-2305	Urban Risk and Disaster Management	0-0-4	2	CC	
6	MPL-2306E	Energy, Climate Change and Urban Development				
7	MPL-2307E	Community Planning and Participation	0-0-2	1	DSE	
8	MPL-2308E	Inclusive cities				
		A. Urban Planning Studio - II	0-0-16	8	CC	
9	MPL-2309	B. Geo-Informatics – II & Management and				
		Governance Plan	0-0-4	2	СС	
	TOTAL CREDIT 20					

### LINGAYAS VIDYAPEETH SCHOOL OF ARCHITECTURE AND PLANNING 2020 BATCH

	M. Plan , Semester - IV , SECOND YEAR					
S.No.	Subject Code	Subject Name	L-T-P	Credit	Type of Course	
1	MPL-2401	Planning Legislation and Professional Practice	0-0-4	2	СС	
2	MPL-2402	Urban Development Policies	0-0-4	2	CC	
3	MPL-2403	Thesis	0-0-32	16	CC	
	TOTAL CREDIT 20					

# **Semester I**

Subject Code	Subject Name	Assigned Credit
MPL - 1101	Planning History and Theory	2
MPL - 1102	Socio- Economic basis for Planning	2
MPL - 1103	Planning Techniques	2
MPL - 1104	Infrastructure and Transport Planning	2
MPL - 1105	Housing and Environmental Planning	2
MPL - 1106	Studio Course	2
MPL - 1107	Studio	8

Module 1 Contacts Hours		M1: FILM APPRECIATION 2 Weeks	
MPL - 1101	Planning History and Theory	20	
MPL - 1102	Socio- Economic basis for Planning	20	
MPL - 1103	Planning Techniques	25	
MPL - 1104	Infrastructure and Transport Planning	20	
MPL – 1106	Studio Course	30	
MPL - 1107	Studio	20	

#### **COURSE OUTCOMES**

Ur	ban Planner will be able to:	Knowledge domain and level	<b>Evaluation Method</b>
1	Create a documentary	K6 in Cognitive domain	Rubric/Viva
2	Appraise planning profession	K4 in Cognitive domain	MCQ's
3	Correlate various aspects & domains involved in city planning	K4 in Cognitive domain	MCQ's
4	Value role of human settlement in history	A3 in Affective domain	MCQ's

#### **COURSE OBJECTIVES**

- 1. Unlearn the traditional classroom system and get acquainted to Project Based Learning
- 2. Learning graphical representation of everyday experience
- 3. Understanding professional ethics and values

#### **Project: Film Appreciation - Documentary**

#### **COURSE CONTENT**

#### MPL - 1101: Planning History and Theory

Evolution of City Building Relevance of the study of evolution of settlements; Hunter, gatherer, farmer and formation of organized society; Cosmological and other influences, origins and growth of cities, effects of cultural influence on physical form; Human settlements as an expression of civilizations; Basic elements of the city; Concepts of space, time, scale of cities.

#### MPL - 1102: Socio- Economic Basis for Planning

<u>Nature and Scope of Sociology:</u> Sociological concepts and methods, man and environment relationships; Socio-cultural profile of Indian society and urban transformation; Tradition and modernity in the context of urban and rural settlements; Issues related to caste, age, sex, gender, health safety, and marginalized groups; Displacement, resettlement and rehabilitation due to compulsory land acquisition.

#### MPL – 1103: Planning Techniques

<u>Survey Techniques and Mapping</u>: Data base for physical surveys including land use, building use, density, building age, etc., and socio-economic surveys; Survey techniques; Land use classification or coding and expected outputs; Techniques of preparing base maps including understanding the concepts of scales, components and detailing for various levels of plans like regional plan, city plan, zoning plan, and local area plan

#### MPL - 1104: Infrastructure and Transport Planning

<u>Role of Infrastructure in Development Elements of Infrastructure (physical, social, utilities and services)</u>: Basic definitions, concepts, significance and importance; Data required for provision and planning of urban networks and services; Resource analysis, provision of infrastructure, and land requirements; Principles of resource distribution in space; Types, hierarchical distribution of facilities, Access to facilities, provision and location criteria, Norms and standards, etc.

#### MPL - 1106: Studio Course

<u>GIS Applications</u>: Coordinate system and geo-coding, vector data structure and algorithms, raster data structure and algorithms, data bases for GIS – concepts, error modeling and data uncertainty, decision making through GIS, constructing spatial data infrastructure and spatial information system; National Urban Information system.

<u>Remote Sensing</u>: Why remote sensing, aerial and satellite remote sensing, principles of aerial remote sensing, Aerial photo-interpretation, photogrammetry, stereovision, measurement of heights / depths by relief displacement and parallax displacement. Principles of satellite remote sensing, spatial, spectral and temporal resolutions. Applications in planning, population estimation, identification of squatter / unauthorized areas, sources of pollution, etc., spatial resolution related to level of Planning

NOTE:	Internal and external exams shall be carried out by a Jury of Internal or External Examiners which would be marked on the basis of the approved evaluation rubric
	S / P Internal Marks shall be awarded on students' work in the form of Assignments/ MCQs/ Case Study / Design Sheets / Reports / Models / Presentations / Seminars, which shall be evaluated by approved evaluation rubric by concerned faculty.

#### SUGGESTED BOOKS and READINGS

- Urban and Regional Planning, Peter Hall, 2005
- Contemporary Urban Planning , John M. Levy, 2017
- Remote Sensing and GIS Accuracy Assessment, edited by Ross S. Lunetta and John G. Lyon
- Land use and land cover change detection with remote sensing and GIS at metropolitan Lagos ...
- Integrated Urban Infrastructure and Services Planning Manual
- Planning Infrastructure & Services, World Bank Report 2012
- The Image of the City by Kevin Lynch

Module 2 Contacts Hours		M2: RESEARCH PAPER 6 Weeks	
MPL - 1101	Planning History and Theory	20	
MPL - 1102	Socio- Economic basis for Planning	20	
MPL - 1103	Planning Techniques	10	
MPL - 1104	Infrastructure and Transport Planning	20	
MPL - 1106	Studio Course	30	
MPL - 1107	Studio	20	

#### **COURSE OUTCOMES**

Ur	ban Planner will be able to:	Knowledge domain and level	<b>Evaluation Method</b>
1	Extensive reading (exposure to current information		
2	Data analysis (qualitative and quantitative)		
3	Scientific experiment		
4	Knowledge expansion		
5	Develop a questioning mindset		
6	Focus Development		
7	Organisation and Application of ideas		

#### **Project: Research Paper**

#### **COURSE CONTENT**

#### MPL – 1101: Planning History and Theory

Town planning in ancient India; Medieval, renaissance, industrial and post-industrial cities; City as a living spatial entity; Concepts of landmark, axis, orientation; City form as a living space; City as a political statement: New Delhi, Chandigarh, Washington D.C. Brasilia etc; Contribution of individuals to city planning: Lewis Mumford, Patrick Geddes, Peter Hall, etc; Dynamics of the growing city, impact of industrialization and urbanization, metropolis and megalopolis.

#### MPL – 1102: Socio- Economic Basis for Planning

<u>Community and Settlements</u> : Social problems of slums and squatters communities, urban and rural social transformation and their impact on social life, safety, security; Crimes in urban areas and their spatial planning implications, social structure and spatial planning; Role of socio-cultural aspects on growth patterns of city and neighbourhood communities; Social planning and policy, and community participation; Marginalization and concepts of inclusive planning, and gender concerns in planning. Settlement Policy: National Commission on Urbanization, Rural Habitat Policy and experiences from developing countries regarding settlement structure, growth and spatial distribution.

#### MPL – 1103: Planning Techniques

<u>Survey Techniques and Mapping</u>: Techniques of preparing base maps including understanding the concepts of scales, components and detailing for various levels of plans like regional plan, city plan, zoning plan, and local area plan

#### MPL – 1104: Infrastructure and Transport Planning

Planning and Management of Water, Sanitation and Storm Water:

<u>Water</u> – sources of water, treatment and storage, transportation and distribution, quality, networks, distribution losses, water harvesting, recycling and reuse, norms and standards of provision, institutional arrangements, planning provisions and management issues;

<u>Sanitation</u> – points of generation, collection, treatment, disposal, norms and standards, grey water disposal, DEWATS, institutional arrangements, planning provisions and management issues.

<u>Storm water</u> – rainfall data interpretation, points of water stagnation, system of natural drains, surface topography and soil characteristics, ground water replenishment, storm water collection and disposal, norms and standards, institutional arrangements, planning provisions and management issues;

#### MPL – 1106: Studio Course

Demography Sources of demographic data in India, Settlement type, growth pattern and structure: urban settlement analysis, Concentration: spatial, vertical and size, peri-urban sprawl, economic base; Rural Settlements – Size, occurrence and character, transformation, Policies towards various size class settlements. Population structure and composition – Age, sex, gender, marital status, caste, religion, literacy level, etc.; Age - sex ratio, structure, pyramid; dependency ratio; occupational structure; Fertility; mortality, migration analysis, natural growth of population, migration and its implications in spatial planning

NOTE:	Internal and external exams shall be carried out by a Jury of Internal or External Examiners which would be marked on the basis of the approved evaluation rubric
	S / P Internal Marks shall be awarded on students' work in the form of Assignments/ MCQs/ Case Study / Design Sheets / Reports / Models / Presentations / Seminars, which shall be evaluated by approved
	evaluation rubric by concerned faculty.

#### SUGGESTED BOOKS and READINGS

- Cities of Tomorrow: An Intellectual History of Urban Planning and Design Since 1880, Peter Hall, 2014
- Geo Information: Remote Sensing, Photogrammetry and Geographic Information Systems, Gottfried Konecny, 2014
- Survey Manual for comprehensive Urban Planning, by Jerome R. Saroff and Alberta Z. Levitan
- Solid waste management in world cities
- Reimagining India: Unlocking the Potential of Asia's Next Superpower, Mckinsey & Company
- Urban Transport: Planning and Management by Pratibha Deshmukh

Module 3		M3: REDESIGN OF A NEIGHBORHOOD - I
<b>Contacts Hours</b>	5	2 Weeks
Subject Code	Subject Name	Max Marks
MPL - 1101	Planning History and Theory	20
MPL - 1102	Socio- Economic basis for Planning	20
MPL - 1103	Planning Techniques	30
MPL - 1104	Infrastructure and Transport Planning	20
MPL - 1105	Housing and Environmental Planning	30
MPL - 1106	Studio Course	10
MPL - 1107	Studio	20

#### **COURSE OBJECTIVES**

- 1. Understanding the landuse characteristics with respect to scale, location, accessibility and precincts.
- 2. Learning the graphical representation of various uses
- 3. Learn the method of conducting surveys
- 4. Data Analysis
- 5. Develop an understanding on how to relate the current landuse situation with the planning guidelines and master plan

**Project: Redesign of a NH (Site Appreciation)** 

#### **COURSE CONTENT**

#### MPL – 1101: Planning History and Theory

Definitions of town and country planning; Orthodoxies of planning; Goal formulation, objective, scope, limitations; Sustainability and rationality in planning; Components of sustainable urban and regional development.

#### MPL- 1102: Socio- Economic Basis for Planning

<u>Elements of Micro and Macro Economics</u>: Concepts of demand, supply, elasticity and consumer markets; concept of revenue costs; Economies of scale, economic and social costs, production and factor market; Different market structures and price determination; market failures, cost-benefit analysis, public sector pricing; Determinants of national income, consumption, investment, inflation, unemployment, capital budgeting, risk and uncertainty, and long-term investment planning.

#### MPL - 1103: Planning Techniques

<u>Analytical Methods</u> : Classification of regions, delineation techniques of various types of regions, analysis of structure of nodes, hierarchy, nesting and rank size; Scalogram, sociogram, etc.; Planning balance sheet; Threshold analysis; Input output analysis, SWOT analysis;

#### MPL- 1104: Infrastructure and Transport Planning

<u>Planning and Management of Municipal Wastes, Power and Fire Municipal and other wastes</u> – generation, typology, quantity, collection, storage, transportation, treatment, disposal, recycling and reuse, wealth from waste, norms and standards, institutional arrangements, planning provisions and management issues. Power – Sources of power procurement, distribution networks, demand assessment, norms and standards, planning provisions and management issues. Fire – History of fire hazards, vulnerable locations, methods of firefighting, norms and standards, planning provisions and management issues.

#### MPL – 1105: Housing and Environment Planning

<u>Housing and the City</u>: 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.

#### MPL – 1106: Studio Course

<u>Demography:</u> Rural Settlements – Size, occurrence and character, transformation, Policies towards various size class settlements. Population structure and composition – Age, sex, gender, marital status, caste, religion, literacy level, etc.; Age - sex ratio, structure, pyramid; dependency ratio; occupational structure; Fertility; mortality, migration analysis, natural growth of population, migration and its implications in spatial planning.

NOTE:	Internal and external exams shall be carried out by a Jury of Internal or External Examiners which would be marked on the basis of the approved evaluation rubric
	S / P Internal Marks shall be awarded on students' work in the form of Assignments/ MCQs/ Case Study / Design Sheets / Reports / Models / Presentations / Seminars, which shall be evaluated by approved evaluation rubric by concerned faculty.

#### SUGGESTED BOOKS and READINGS

- Neighbourhood Planning: including Neighbourhood Development Plans, Neighbourhood Development Orders and Community Right to Build Orders
- The Power of Neighbourhood Planning by Peter Edwards
- Town Planning : The Basics by Tony Hall

Module 4		M4: REDESIGN OF A NEIGHBORHOOD - II	
<b>Contacts Hours</b>	5	2 Weeks	
Subject Code	Subject Name	Max Marks	
MPL - 1101	Planning History and Theory	20	
MPL - 1102	Socio- Economic basis for Planning	20	
MPL - 1103	Planning Techniques	10	
MPL - 1104	Infrastructure and Transport Planning	20	
MPL - 1105	Housing and Environmental Planning	35	
MPL - 1107	Studio	20	

#### **COURSE OBJECTIVES**

1. Learn the applicability of the various norms and guidelines given in the master plan.

#### **Project: Site Planning**

#### **COURSE CONTENT**

#### MPL – 1101: Planning History and Theory

Theories of city development including Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory and other latest theories; Land use and land value theory of William Alonso; Ebenezer Howard's Garden City Concept; and Green Belt Concept; City as an organism: a physical, social, economic and political entity; Emerging Concepts: global city, inclusive city, safe city, etc.

#### MPL – 1102: Socio- Economic Basis for Planning

<u>Economics and Lessons from Indian Experiences:</u> Economic growth and development, quality of life; Human development index, poverty and income distribution, employment and livelihood

#### MPL - 1103: Planning Techniques

<u>Demographic Methods</u>: Methods of population forecasts and projections; Lorenz Curve, Ginni Ratio, Theil's index, rations: urban – rural, urban concentration, metropolitan concentration; Location dimensions of population groups – social area and strategic choice approach – inter connected decision area analysis.

#### MPL – 1104: Infrastructure and Transport Planning

<u>City Development and Transport Infrastructure Planning, Management and Design</u>: Role of transport, types of transport systems, evolution of transport modes, transport problems and mobility issues; Urban form and Transport patterns, land use – transport cycle, concept of accessibility; Hierarchy, capacity and geometric design elements of roads and intersections.

#### MPL - 1105: Housing and Environment Planning

<u>Concepts and Definitions:</u> 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, multistoried 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.

<u>Planning for Neighbourhoods</u> : 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 provisions and Case studies of neighbourhood planning.

NOTE:	Internal and external exams shall be carried out by a Jury of Internal or External Examiners which would be marked on the basis of the approved evaluation rubric
	S / P Internal Marks shall be awarded on students' work in the form of Assignments/ MCQs/ Case Study / Design Sheets / Reports / Models / Presentations / Seminars, which shall be evaluated by approved evaluation rubric by concerned faculty.

#### SUGGESTED BOOKS and READINGS

- Neighbourhood Planning: Place, Space and Politics by Janet Banfield
- Neighbourhood Planning: Communities, Networks and Governance by Nick Gallent and Steve Robinson
- Spatial Planning and Sustainable Development: Approaches for Achieving Sustainable Urban Form in Asian cities, Zhen-jiang Shen & Mitsuhiko Kawakami (auth.) & Mitsuhiko Kawakami & Jen-te Pai & Xiao-lu Gao & Ming Zhang (eds.), 2013

Module 5		M5: OUTINE DEVELOPMENT PLAN	
<b>Contacts Hours</b>	5	4 Weeks	
Subject Code	Subject Name	Max Marks	
MPL - 1101	Planning History and Theory	20	
MPL - 1102	Socio- Economic basis for Planning	20	
MPL - 1103	Planning Techniques	25	
MPL - 1104	Infrastructure and Transport Planning	20	
MPL - 1105	Housing and Environmental Planning	35	
MPL - 1106	Studio Course	30	
MPL - 1107	Studio	20	

#### **COURSE OBJECTIVES**

- 1. Understanding the dynamism of the city
- 2. Learn the method of conducting surveys
- 3. Understanding the developmental issues of the city
- 4. Understanding the technique of projections
- 5. Development of policies and guidelines

Project: Outline Development Plan (ODP) -

#### **COURSE CONTENT**

#### MPL – 1101: Planning History and Theory

City of the future and future of the city; Shadow cities, divided cities; Models of planning: Advocacy and Pluralism in Planning; Systems approach to planning: rationalistic and incremental approaches, mixed scanning and middle range planning; Equity planning; Political Economy Model; Types of development plans, plan making process.

#### MPL – 1102: Socio- Economic Basis for Planning

<u>Economics and Lessons from Indian Experiences</u>: Economic principles in land use planning; Policies and strategies in economic planning, balanced versus unbalanced growth, public sector dominance; changing economic policies, implications on land.

#### MPL - 1103: Planning Techniques

<u>Planning Standards</u>: Spatial standards, performance standards and benchmarks, and variable standards; UDPFI guidelines, zoning regulations and development control rules and regulations.

#### MPL – 1104: Infrastructure and Transport Planning

<u>City Development and Transport Infrastructure Planning, Management and Design:</u> Basic principles of Transport infrastructure design; Traffic and transportation surveys and studies, traffic and travel characteristics; Urban transport planning process – stages, study area, zoning, data base, concept of trip generation Transport, environment and safety issues; principles and approaches of traffic management, transport system management.

#### MPL – 1105: Housing and Environment Planning

<u>Social and Economic Dimensions</u> : 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 for 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.

#### MPL – 1106: Studio Course

<u>Statistical Applications</u>: General concepts - statistical interference, population and samples variables, Sampling, simple statistical models, Measures of central Tendency, Measures of Dispersion, Measures of shape of distribution, Correlation and regression

#### SUGGESTED BOOKS and READINGS

- Urban Infrastructure, Finance and Management, Kath Wellman and Marcus Spiller
- Water Supply and Sewerage, McGraw- Hill series in water resources and environmental engineering by E. W Steel
- Urban Drainage by Butler & David & Davies & John W. & James Digman & Christopher &
- Bicycle Urbanism: Reimagining Bicycle Friendly Cities
- Master Plan Delhi 1962, 2001 and 2021
- URDPFI Guidelines
- Modern Municipal Rules 2003
- National Transport Policy, 2007, 2019

# Semester II

S.No.	Subject Code	Subject Name	Credit
1	MPL-1201	City and Metropolitan Planning	2
2	MPL-1202	Infrastructure Planning	2
3	MPL-1203	Sustainable Planning and Development	2
4	MPL-1204	Advanced Planning Techniques	2
5	MPL-1205	Urban Heritage Conservation	1
6	MPL-1206E	Planning for tourism	
7	MPL-1207E	Urban Information System and Spatial Analysis	1
8	MPL-1208E	Land Use and Transport Planning	
	MPL-1209	A. Urban Planning Studio	8
9		B. Geo-Informatics – II & Management and Governance Plan	2

Module 1		M1: Literature Review	
<b>Contacts Hours</b>	5		
Subject Code	Subject Name		
MPL-1201	City and Metropolitan Planning		
MPL-1202	Infrastructure Planning		
MPL-1203	Sustainable Planning and Development		
MPL-1204	Advanced Planning Techniques		
MPL-1205	Urban Heritage Conservation		
MPL-1206E	Planning for tourism		
MPL-1207E	Urban Information System and Spatial Analysis		
MPL-1208E	Land Use and Transport Planning		
	A. Urban Planning Studio		
MPL-1209	B. Geo-Informatics – II & Management and Governance Plan		

#### **Project:**

#### **COURSE CONTENT**

#### MPL - 1201: City and Metropolitan Planning

Urban Structure and Growth Implications

Growth of cities; cities as engine of growth; urban sprawl; land value, economic attributes of activity location, economic forces in urban development; Structure of City Regions, area of influence, Impact of technology on urban forms; Transportation and urban form; location characteristics and impact of urban settlements.

#### MPL – 1202: Infrastructure Planning

#### Water Supply System

Water supply systems and networks, network mapping; water sources, quality and quantity requirements, collection and conveyance techniques; water requirement for various land uses; Factors affecting water demand; Storage facilities; Distribution Systems; rain water harvesting system-Locational Criteria, Implications on Land Use and Density of Water Harvesting System; Innovative Methods and successful urban water supply system practices; policies, land requirements and phasing of water supply systems.

#### MPL -1203: Sustainable Planning and Development

#### Introduction to Sustainable Development

Sustainable Development- Definitions, Concepts and Parameters; Eco-City Approach; Kyoto Protocol, Intergovernmental Panel on Climate Change (IPCC), United Nations Framework Convention on Climate Change; Indian Network of Climate Change Assessment, Global Environment Facility, and Clean Development Mechanism; UNHABITAT policies, Sustainable Development Goals, New Urban Agenda, Sustainable Cities Programme (UNEP and UN-Habitat), Localizing Agenda 21 (UN-Habitat).

#### MPL – 1204: Advanced Planning Techniques

#### **Survey Techniques**

Data Base for Physical surveys (including land use / building use / density / building age, etc.) and Socioeconomic surveys; Questionnaire formulation, Sampling and survey techniques, etc. Land use classification / coding.

#### MPL -1205: Urban Heritage Conservation

#### Introduction to Urban Heritage

Typology / classification, inventories, mapping; Human habitation in historical context; Heritage as a motivating force in sustainable urban conservation and development,

#### MPL – 1206E: Planning for Tourism

#### Introduction to Tourism

Definitions, scope, nature, classification and dimension, tourism as an industry, tourism in developed and developing world.

#### MPL – 1207E: Urban Information System and Spatial Analysis

#### Importance of Urban Information Systems

Information Scales and Levels; Pre-Conditions for Using Planning Information Systems; Representing, Modelling and Impact Analysis of the Data; Query Measurement and Transformations; Summary Statistics and Inference.

#### MPL – 1208E: Land Use and Transport Planning

#### Importance of Land use-Transport Integration

Land use and mobility patterns in cities, implications of land use patterns on transport and mobility, land use and transport decisions, need for sustainable development and sustainable transport; need and benefits of land use transport integration, case cities of land use –transport integration

#### SUGGESTED BOOKS and READINGS

- The Application of Remote Sensing and GIS
- The City in History: Its Origins, Its Transformations, and Its Prospects by Lewis Mumford (1972)
- Good City Form by Kevin Lynch (1995)

Module 2		M2: Field Visit	
Subject Code Subject Name		Max Marks	
MPL-1201	City and Metropolitan Planning	15	
MPL-1202	Infrastructure Planning	25	
MPL-1203	Sustainable Planning and Development	20	
MPL-1204	Advanced Planning Techniques	20	
MPL-1205	Urban Heritage Conservation	20	
MPL-1206E	Planning for tourism	20	
MPL-1207E	Urban Information System and Spatial Analysis	15	
MPL-1208E	Land Use and Transport Planning	15	
	A. Urban Planning Studio		
MPL-1209	B. Geo-Informatics – II & Management and Governance		
	Plan		

#### **Project:**

#### **COURSE CONTENT**

#### MPL - 1201: City and Metropolitan Planning

#### **Theories of Development and Emerging Concepts**

Theories of urban structure and land use- Centre place theory, urban realm model, core frame theory; New urbanism; Territorial Development Theory - Growth pole theory, urban bias critique, secondary cities and urban diffusion; Emerging Rural Urban Relationship models – urban rural linkage, expanding city, globalisation and extended metropolitan region, Desakota model, Networked model; Territoriality of rural-urban interaction; Peri- urban Interface (PUI) case studies.

#### MPL - 1202: Infrastructure Planning

#### Storm water, Sanitation and Sewer system

Strom water drainage networks, network mapping; general considerations and principles, physical layout, design principles, Data requirement, estimations of sewer generation and network requirements; Sanitation and Sewer System: General considerations and principle, Sewage Disposal and treatment Methods; Characteristics of Waste Water, Industrial Pollutants and their Effects, Innovative Approaches of Sewage disposal in urban area and low cost appropriate technologies for Sanitation.

### MPL -1203: Sustainable Planning and Development

#### **Principle of Sustainable Planning**

Concept of sustainable planning, Three pillars of sustainability and its implication in planning process; Environmental preservation; commerce and liveability; Walkability and Connectivity; Integration of diverse community features; Strong sense of place.

### MPL -1204: Advanced Planning Techniques

#### **GIS Mapping**

Coordinate system, Georeferencing and geo-coding; GIS data processing (Digitization, topology building and metadata creation), Data structures and modeling, GIS analysis (Buffer, proximity and overlay), Decision making through GIS, Information systems (Land Information system, Urban Information system for various activity sectors).

#### MPL -1205: Urban Heritage Conservation

#### **Heritage Conservation**

Natural heritage conservation - typologies, policies for conservation, regulatory measures, community participation; Concept of Historic Urban Landscapes; Built heritage conservation - determinants of built form on heritage; Historic urban infrastructure and traditional water harvesting systems. Integration of historic monuments / areas / cores / urban systems in the developmental process and land use, regulatory measures and community involvement; Intangible cultural heritage and development: issues, conservation strategies. Preparation of conservation and heritage management plans.

#### MPL – 1206E: Planning for Tourism

#### **Tourism Sector – impacts**

Relationship between Tourism and Urban Development, Tourism multiplier and forecasting methods: capacity building and carrying capacity planning for tourism projects, tourism and cultural and social change: Socio-cultural problems, environmental degradation.

#### MPL - 1207E: Urban Information System and Spatial Analysis

Urban Information Systems for 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

#### MPL - 1208E: Land Use and Transport Planning

Principles of Land use – Transport Integration

Land use transport integration- definition and concept, land use transport cycle, importance of accessibility, factors affecting land use transport integration, tools for Land use -Transport Integration, key elements of integration, Integrating land use and transport in the planning process, Institutional integration and legal mechanism

Module 3		M3: Data Analysis
Subject Code	Subject Name	Max Marks
MPL-1201	City and Metropolitan Planning	15
MPL-1202	Infrastructure Planning	25
MPL-1203	Sustainable Planning and Development	20
MPL-1204	Advanced Planning Techniques	20
MPL-1205	Urban Heritage Conservation	20
MPL-1206E	Planning for tourism	20
MPL-1207E	Urban Information System and Spatial Analysis	20
MPL-1208E	Land Use and Transport Planning	20
	A. Urban Planning Studio	15
MPL-1209	B. Geo-Informatics – II & Management and	25
	Governance Plan	

#### **Project:**

# MPL - 1201: City and Metropolitan Planning Planning Norms and Standards

Spatial standards for residential , industrial, commercial , institutional, transport, ecological spaces , recreational areas etc.; space standards for facility areas, utilities and networks; performance standards

#### MPL -1202: Infrastructure Planning

#### Solid Waste Disposal and Management

Elements of Solid Waste Management, Classification and Characteristics of Solid Wastes; Methods for Solid waste Collection, Storage, transportation and disposal; Processing and Treatment of Solid Wastes; Land Filling methods of Solid Waste Management; Best practices for solid waste management.

### MPL -1203: Sustainable Planning and Development

### **Ecological Principles in Planning**

Natural drainage and water bodies; Application of Ecological Principles in Sustainability; Carrying Capacity Based Planning- Concept, Parameters and Indicator Measures; Models and Case Studies in Urban and Regional Development.

#### MPL -1204: Advanced Planning Techniques Research Design and implementation

Approaches in research, developing a method for research; Questionnaire Design, Types of data, sampling methods; developing aims, objectives, scope, limitations; and literature research – using library, accessing the Internet

#### MPL -1205: Urban Heritage Conservation

#### Heritage and Tourism, Policies and Programmes, Legislation

Cultural and heritage based tourism - nature, potential and prospects, marketing aspects; Acts and laws recognizing conservation / regeneration; Heritage toolkit; Implications of 74th Constitution Amendment Act.

#### MPL – 1206E: Planning for Tourism

#### Planning for Tourism

Nature and scope of a tourism plan- key issues and stages, data requirements, surveys, role of key players / stake holders in tourism policy and planning, sustainable tourism development planning; community planning and tourism; implementation and management, role of travel and tourism promoting agencies, monitoring the tourism development; Tourism marketing - concept, techniques and strategies.

#### MPL – 1207E: Urban Information System and Spatial Analysis

#### Urban Information Sources

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;

#### MPL – 1208E: Land Use and Transport Planning

Land Use-Transport Model

Components of Land use transport model, accessibility – concept, measures and quantification, types of land use transport model- Density saturation gradient method, Hansen's accessibility model, intervening opportunity model, Garin Lowry model; strategic land use transport model

Module 4		M4: Issues and Potentials
Subject Code	Subject Name	Max Marks
MPL-1201	City and Metropolitan Planning	25
MPL-1202	Infrastructure Planning	15
MPL-1203	Sustainable Planning and Development	10
MPL-1204	Advanced Planning Techniques	25
MPL-1205	Urban Heritage Conservation	25
MPL-1206E	Planning for tourism	30
MPL-1207E	Urban Information System and Spatial Analysis	30
MPL-1208E	Land Use and Transport Planning	30
MPL-1209	A. Urban Planning Studio	25
	B. Geo-Informatics – II & Management and Governance Plan	25

#### **Project:**

#### MPL - 1201: City and Metropolitan Planning

#### Plan Preparation Approaches and Techniques

Approaches for preparation of Urban development plans, Master Plans, Structure plans and Strategy Plan; Public Participation and Plan Implementation; Techniques of urban renewal and redevelopment; System approach to planning; Threshold analysis, retail location and industrial location analysis; transport system analysis

#### MPL - 1202: Infrastructure Planning

#### Energy, Telecommunication and Fire Fighting Services

Power Supply – Sources of Electricity; Transmission, Distribution and Supply network; Sustainable Energy Planning; Telecommunications - Infrastructure and Network Systems; Digital Infrastructure Fire Fighting Services - Planning for Fire Protection Services and Space Standards;

#### MPL -1203: Sustainable Planning and Development

#### **Climate Change and its Impact**

Basic concepts and definitions of Climate Change; Urban Heat Islands; Climatic Change and Human History; Impacts of Climate Change; Climate as Forcing Variable, Locational Attributes, Sensitivity and Vulnerability of Different Sectors; Extreme events and their effects

#### MPL -1204: Advanced Planning Techniques

#### Analytical Techniques, Presentation and Report Writing

Data tabulation; Interpretation of information; Graphical presentation of data; Spatial representation of data; Types of reports with specific focus on technical report writing; Organizing the report, structure chapter organization, Writing the report (analytical findings); Referencing in text, use of software in referencing.

### MPL – 1205: Urban Heritage Conservation

#### **Design in Human Habitation**

Social / cultural / ecological / energy determinants of design; Imagibility of the city; Structure of urban spaces – location criteria of activities and urban uses; Urban Regeneration, renewal, rehabilitation,

revitalization, reconstruction and redevelopment - concepts, interventions, processes, approaches and methods, tools.

#### MPL – 1206E: Planning for Tourism

#### **Policies and Programmes**

Tourism policies at various levels.

#### MPL – 1207E: Urban Information System and Spatial Analysis

Geographic Information System (GIS) and Remote Sensing Techniques

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; 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

#### MPL – 1208E: Land Use and Transport Planning

Traffic Impact of Land Development

Principles of traffic impact analysis, land development attributes, traffic generation rates of different land uses, Land development impact on traffic congestion on road segments, intersections and parking, impact on public transportation, pedestrian traffic and safety

Module 5		M5: Forecast and Proposals
<b>Contacts Hours</b>	6	· · · ·
Subject Code	Subject Name	Max Marks
MPL-1201	City and Metropolitan Planning	25
MPL-1202	Infrastructure Planning	15
MPL-1203	Sustainable Planning and Development	10
MPL-1204	Advanced Planning Techniques	25
MPL-1205	Urban Heritage Conservation	25
MPL-1206E	Planning for tourism	30
MPL-1207E	Urban Information System and Spatial Analysis	30
MPL-1208E	Land Use and Transport Planning	30
MPL-1209	A. Urban Planning Studio	25
	B. Geo-Informatics – II & Management and Governance Plan	25

#### **Project:**

#### MPL - 1201: City and Metropolitan Planning

#### **Planning Approaches for Special Areas**

Special area planning- definition, types, attributes, requirements, planning process; inner areas, peri-urban areas issues and planning approaches; Smart City – Concepts, Elements, Features, planning approach and strategies, policy efforts in India; Inclusive planning- Concept and components, essential dimensions of inclusive planning; growth of informal sector, characteristics, linkages with formal sector, Planning interventions, Inclusive zoning, development and building regulations, slum improvement;

#### MPL -1202: Infrastructure Planning

#### Transport System

Types and characteristics of transport systems; determinants of transport demand; planning norms and standards; Principles of transport infrastructure planning and design- roads and intersections, street infrastructure elements; pedestrian and cyclist infrastructure; parking facilities; principles of traffic management

#### MPL -1203: Sustainable Planning and Development

#### **Urban Environmental Management**

Urban Environmental Management and Planning; Human activities and energy in Cities; Contribution to GHGs; Environmental Impact and Strategic Environmental Assessment for Urban Areas; Ecological Footprint Analysis of Cities; Sustainable Lifestyle Assessment.

## MPL -1204: Advanced Planning Techniques

#### **Case Studies**

## MPL -1205: Urban Heritage Conservation

#### Management of Urban Conservation Assets

Legal and administrative aspects, archaeological acts/charters pertaining to conservation, development and conservation; case studies on management of urban conservation of sites/ area in India and abroad.

#### MPL – 1206E: PLANNING FOR Tourism

**Case Studies** 

#### MPL – 1207E: Urban Information System and Spatial Analysis

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

#### MPL – 1208E: Land Use and Transport Planning

Transit Oriented Development (TOD)

Transit Oriented Development- Definition, concepts and key components ; principles of TOD, planning norms and standards of TOD, pre-requisites of TOD, financing TOD, role of stakeholders, case studies of TOD

Case Studies on Land use - Transport Integration

Best practices of Land use transport integration in India and abroad, inter-disciplinary policy issuesandpublicactionforguidinglandusetransportintegration.

# Semester III

S.No.	Subject Code	Subject Name	Credit
1	MPL-2301	Urban Development Management and Governance	2
2	MPL - 2302	Project Planning and Management	2
3	MPL - 2303	Politics and Planning	1
4	MPL – 2304	Development Finance	2
5	MPL – 2305	Urban Risk and Disaster Management	2
6	MPL – 2306E	Energy, Climate Change and Urban Development	8
7	MPL – 2307E	Community Planning and Participation	2
8	MPL – 2308E	Inclusive cities	
	MPL - 2309	A. Urban Planning Studio - II	
9		B. Geo-Informatics – II & Management and Governance Plan	

Module 11		M 11
<b>Contacts Hours</b>		3 weeks
Subject Code	Subject Name	Max Marks
MPL-2301	Urban Development Management and Governance	10
MPL - 2302	Project Planning and Management	30
MPL - 2303	Politics and Planning	25
MPL – 2304	Development Finance	25
MPL – 2305	Urban Risk and Disaster Management	30
	Urban Planning Studio - II	25
MPL - 2309	Geo-Informatics – II & Management and Governance Plan	30
MPL – 2306E	Energy, Climate Change and Urban Development	20
MPL – 2307E	Community Planning and Participation	25
MPL – 2308E	Inclusive cities	30

#### **COURSE OUTCOMES**

Urban Planner will be able to:	Knowledge domain and level	<b>Evaluation Method</b>
Assess the study area in context to the socio-economic,	K4 in Cognitive domain	
spatial, environmental and cultural characteristics of that		
city, zone, location		
Appreciate the locational attributes of land parcels for	K4 in Cognitive domain	
future development in a city		
Apply the understand to generate an area profile	K6 in Cognitive domain	

#### COURSE OBJECTIVES

- 1. Understand and Contextualize location of an area in relation the city
- 2. Understand the functioning of the area w.r.t to governance and jurisdiction

#### Project: Area Appreciation – Area Profile: Site analysis of a sector/ ward in a metropolitan city

#### MPL - 2301: Urban Development Management and Governance

#### Introduction to Development Management

Definition, objectives and scope of management; Role of management in developing economy; Decision making process and corporate activity in urban development; interface with national goals and political economic system. Strategies, Tools and Techniques and their application; organizations involved.

#### MPL - 2302: PROJECT PLANNING AND MANAGEMENT

#### Importance of Project Management

Definition of Project, Project Management – Definition and its importance; Stages of Project Life Cycle; Causes of Project Delay; Role of Project Manager; Attributes of Successful Project Management.

#### MPL – 2303: POLITICS AND PLANNING

**Interface between Politics and Planning** 

Social and economic context; State in India – political culture of the Indian State – Centre – State – Local political economy: 74th Constitution Amendment Act, State Finance Commissions; Emergence of the State in the federal set up.

#### MPL – 2304: DEVELOPMENT FINANCE

#### **Overview of Development Finance**

Approaches, concepts, components, process, credit rating.

#### MPL – 2305: URBAN RISK AND DISASTER MANAGEMENT

#### Urbanisation and Associated Risks

Urbanisation patters, resource consumption and environment versus economy and their impacts; Resource Depletion and Pollution; Environmental Concerns and Challenges, impact of human activity on environment; Inter-relation with urban risks; Causative factors; role of land-use planning, zoning and development control regulations in managing urban risks

#### MPL – 2306E: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT

#### Introduction

Energy, Climate change and Urban Development – Interface.

#### MPL - 2307E: COMMUNITY PLANNING AND PARTICIPATION

#### **Overview of Communities**

Overview of communities – definition, type, attributes, activity patterns, locational patterns;

sociocultural aspects; community needs and spatial requirements ; socio-economic implication,

#### Principles of Community Planning

Community planning- Principles, approaches and key considerations; spatial-socio-economic linkages; inclusion and quality of life; neighbourhood planning; local area planning

#### MPL - 2308E: INCLUSIVE CITIES

#### **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

Module 12		M 12
<b>Contacts Hours</b>	5	3 Weeks
Subject Code	Subject Name	Max Marks
MPL-2301	Urban Development Management and Governance	10
MPL - 2302	Project Planning and Management	30
MPL - 2303	Politics and Planning	25
MPL – 2304	Development Finance	25
MPL – 2305	Urban Risk and Disaster Management	30
	Urban Planning Studio - II	25
MPL - 2309	Geo-Informatics – II & Management and Governance Plan	30
MPL-2306E	Energy, Climate Change and Urban Development	20
MPL-2307E	Community Planning and Participation	25

MPL-2308E Inclusive cities 30	
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#### **COURSE OBJECTIVES**

- 1. Understanding the landuse characteristics with respect to scale, location, accessibility and precincts.
- 2. Learning the graphical representation of various uses
- 3. Learn the method of conducting surveys
- 4. Data Analysis
- 5. Develop an understanding to relate master plans, zonal plans and guidelines.

#### Project: Area Appreciation – Area Analysis: Site analysis of a sector/ ward in a metropolitan city

### MPL - 2301: Urban Development Management and Governance

#### Land and Real Estate Development

Economic concepts of land, Land Pricing / valuation; Economic principles of land use; demand forecasting for land use: factors affecting land supply and demand; Land development methods, Supply Management, Demand side Management; Real estate markets, type of property development and its impact on supply and demand, method of development, environmental considerations.

#### MPL – 2302: PROJECT PLANNING AND MANAGEMENT

#### **Project Formulation and Appraisal**

Relationship between projects and planning issues including sectoral policy at: Local, State and National levels; Project Appraisal - Types of Feasibility, Financial and Economic Appraisals, Project Financial Appraisal Techniques; 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 over project cost; Social cost benefit analysis – UNIDO, Merles, ZOPP/GOPP, etc

#### MPL - 2303: POLITICS AND PLANNING

#### City and the State - I

State as a manager of resources – property rights, norms and standards – Government market and market by Government – Regulatory State, Reforming State, and Rent Seeking State – their spatial implications;

#### MPL – 2304: DEVELOPMENT FINANCE

#### **State Finance**

Finance Commissions, functions, relationship between Central, State and Urban Local Government.

#### MPL - 2305: URBAN RISK AND DISASTER MANAGEMENT

#### **Urban Risks and Climate Change**

Urban Risks- Definitions, Types and nature, Magnitude; Hazard, vulnerability and risks ; Climate Change-Risks and Resilience in cities

#### **Urban Risks Assessment**

Methods and approaches to urban risk assessment; hazard impact assessment, institutional assessment;

socioeconomic assessment, Risk Mitigation and Risk Transfer; Causes and risk mitigation strategies for industrial, chemical and biological disasters

## MPL – 2306E: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT

#### Energy Generation and Consumption.

Energy Supply and Demand, Energy Consumption in cities, determinants of energy demand, phenomenon of climate change, factors influencing climate change, impacts of climate change

#### MPL – 2307E: COMMUNITY PLANNING AND PARTICIPATION

#### **Local Planning Tools and Techniques**

Participatory Learning (PLA) tools: Mapping local context and problem identification, Focus Group Discussions, ; Audit of communities and its facilities; rapid assessment of community needs and planning Intervention

#### MPL – 2308E: INCLUSIVE CITIES

#### 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

Module 13 Contacts Hours		M 13 3 Weeks
MPL-2301	Urban Development Management and Governance	10
MPL - 2302	Project Planning and Management	30
MPL - 2303	Politics and Planning	25
MPL – 2304	Development Finance	25
MPL – 2305	Urban Risk and Disaster Management	30
	Urban Planning Studio - II	25
MPL - 2309	Geo-Informatics – II & Management and Governance Plan	30
MPL – 2306E	Energy, Climate Change and Urban Development	20
MPL – 2307E	Community Planning and Participation	25
MPL – 2308E	Inclusive cities	30

#### **COURSE OBJECTIVES**

- 1. Understanding the dynamism of the neighborhood
- 2. Learn the method of conducting surveys
- 3. Understanding the developmental issues of the neighborhood
- 4. Appreciating the importance of community participation

#### Project: Strategies and Project Formulation: Study area to be a ward/ sector of a metro city

### MPL - 2301: Urban Development Management and Governance

#### **Urban Redevelopment**

Strategies and evaluation of redevelopment; role of public sector agencies in redevelopment; Area

based redevelopment Initiatives; Property led redevelopment policies; Investment and Funding of Urban Redevelopment Schemes; Role of private sector; Development Potential and Pricing; Plot reconstitution; Renewal through Housing and Mixed Use Development; Community Participation

#### MPL - 2302: PROJECT PLANNING AND MANAGEMENT

#### **Project Planning and Scheduling and Financing**

Introduction to Project Planning- Process, Investment Phase; Project Work (Work Breakdown Structure), Manpower and Organisation, Project Finance, Information System; Process of Project Formulation and constraints; Breakeven Analysis; Sensitivity Analysis; Project Budgeting; Project Scheduling - definition and steps; Network techniques and activity on Arc/Node; Forward Pass and Backward Pass; Critical Path and Slack; PERT; concept of Gantt Chart. Project financing need assessment; sources of funds; disposition of funds, planning for project Financing.

#### MPL – 2303: POLITICS AND PLANNING

#### City and the State - II

Development planning and the Indian state – Centralization, powerlessness and decentralization; spatial politics and competition; Politics of the State and bureaucracy; New State spaces, invited and contested spaces – changing role of the state

#### **MPL - 2304: DEVELOPMENT FINANCE**

#### **Municipal Finance**

Urban reform incentive fund, Sources of revenues; Equities; Loans; Debt financing; City challenge fund, Pooled finance development fund, National urban infrastructure fund, Municipal Bonds, Miscellaneous sources; Structure of finances, fiscal problems and issues of financial management, implications of 74th Constitution Amendment Act for municipal finance, expenditure pattern, Bilateral and multi lateral lending intuitions mobilizing resources for a project - financial resources, land resources, project resources, and other resources.

#### MPL – 2305: URBAN RISK AND DISASTER MANAGEMENT

#### **Disaster Types and Impacts**

Disasters- Definitions, types and examples of disasters across the World; Natural disasters and manmade Calamities, Degree of Damage, Frequency of Occurrences and Other Historical Facts; Classification of Disasters in India; Impacts of disasters, land use planning, building bye laws and disaster safe construction practices for different types of disasters

#### MPL – 2306E: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT

#### Energy Planning and Management, and Mitigation and Adaptation to Climate Change.

Energy efficient development, Compact city form, Transit oriented development.

#### MPL - 2307E: COMMUNITY PLANNING AND PARTICIPATION

#### **Role of Community Participation**

Participatory process in housing and community development; Community participation- community involvement, community action; role of CBOs, NGOs, SHGs, etc.

#### MPL-2308E: INCLUSIVE CITIES

#### **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

Module 14		M 14
<b>Contacts Hours</b>	5	4 Weeks
Subject Code	Subject Name	Max Marks
MPL-2301	Urban Development Management and Governance	10
MPL - 2302	Project Planning and Management	30
MPL - 2303	Politics and Planning	25
MPL – 2304	Development Finance	25
MPL – 2305	Urban Risk and Disaster Management	30
	Urban Planning Studio - II	30
MPL – 2309	Geo-Informatics – II & Management and Governance Plan	25
MPL – 2306E	Energy, Climate Change and Urban Development	20
MPL – 2307E	Community Planning and Participation	25
MPL – 2308E	Inclusive cities	30

#### **COURSE OBJECTIVES**

- 1. Understanding the techniques of project identification
- 2. Itemization of components
- 3. Learn the process of costing and phasing

#### Project: Site layout, Components and Itemization - Study area to be a ward/ sector of a metro city

#### MPL - 2301: Urban Development Management and Governance

#### Urban Governance, Institutions and Organizations

Urban Governance- Definition, concepts and components; hierarchy and structure, form of governance; Institutional and organizational framework, existing institutional and organizational setting for urban management in India; distribution of responsibilities ; special purpose vehicles (SPV's) in the urban sector ; significance of organizational framework; Difference between institutions and organizations;

#### MPL – 2302: PROJECT PLANNING AND MANAGEMENT

#### **Project Monitoring**

Project Monitoring and criteria for decision making; Parameters and Tools of Control; Use of Network Analysis in Project Monitoring; Reporting and Corrective Actions; Resource Management and Project Reporting

#### MPL - 2303: POLITICS AND PLANNING

#### Politics related to Planning and Development

Politics related to land, shelter, urban infrastructure, resources; Regeneration and redevelopment politics; politics of provision, financing and pricing; decision-making and decision taking.

#### MPL – 2304: DEVELOPMENT FINANCE

**Investment Planning and Financing Mechanism** 

Link with spatial plans, process, components, investment needs, budgeting, financial investments in infrastructure and services. Financing of urban development, infrastructure and services – mechanisms and instruments, subsidy reduction, cost recovery, public private partnerships; Financial appraisal, investment appraisal; Financial Risk – Sources, Measures and perspectives on risk, Sensitivity analysis.

#### MPL - 2305: URBAN RISK AND DISASTER MANAGEMENT

#### **Disaster Vulnerability Preparedness**

Identification of Disaster prone areas; Forecasting and early warning systems for various types of disasters; communication and information technology in disaster management; Disaster Vulnerability Mapping; Disaster Preparedness, Response and Post Disaster Recovery and Rehabilitation Measures; Disaster management principles; local, district and State disaster management groups, structures and functions; prevention and preparedness activities; response and recovery activities; disaster declaration arrangements

#### MPL – 2306E: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT

#### Energy Planning and Management, and Mitigation and Adaptation to Climate Change.

Mechanisms and measures for mitigating and adapting to climate change at various levels

#### MPL - 2307E: COMMUNITY PLANNING AND PARTICIPATION

#### **Process of People's Participation**

Participatory approaches, Typology of participation, Key principles of applying participatory methods and tools, Participatory attitudes and behaviour, Teamwork skills in the context of participation, PLA/PID Tools, Participation as a process, Participatory Monitoring and Evaluation, Beneficiary Assessment, social assessment, stakeholder analysis,

#### MPL - 2308E: INCLUSIVE CITIES

#### **Participatory Planning for Inclusive Development**

Importance of participatory planning for inclusive development; approaches and methods, of participatory planning, role of stakeholders (including civil society organizations), constraints, prerequisites

#### **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.

Module 15		M 15
<b>Contacts Hours</b>		4 Weeks
Subject Code	Subject Name	Max Marks
MPL-2301	Urban Development Management and Governance	10
MPL - 2302	Project Planning and Management	30
MPL - 2303	Politics and Planning	25
MPL – 2304	Development Finance	25
MPL – 2305	Urban Risk and Disaster Management	30
MPL - 2309	Urban Planning Studio - II	25

	Geo-Informatics – II & Management and Governance Plan	30
MPL – 2306E	Energy, Climate Change and Urban Development	20
MPL – 2307E	Community Planning and Participation	25
MPL – 2308E	Inclusive cities	30

#### **COURSE OBJECTIVES**

# <u>Project:</u> Project Cost and Scheduling Appraisal and Implementation - Study area to be a ward/ sector of a metro city

# MPL - 2301: Urban Development Management and Governance Urban Local Governance and its Reforms

Urban local governance- type, organization, power, functions, resource, state supervision control and their working; improvement trust- organizations, scope of their powers and functions and their working; City development authorities: organizations, scope of their power and functions, resources, and their working; administrative reforms in local governance; Organisational Restructuring of Local Governments; capacity building; NGO's.

#### **Participatory Process in Urban Governance**

Stakeholder participation- roles and responsibilities, access to governments; Citizen Participation in urban development and management; Inter-organisational relations and coordination at local level; role of digital engagement and social media.

#### MPL - 2302: PROJECT PLANNING AND MANAGEMENT

#### **Project Evaluation**

Project Evaluation- Methods, tools, time frame and results; Project Cash Flows; Principles of Cash Flow Estimation; Project Benefits; Financial Closure, Presentation of evaluation findings.

#### **Interface between Politics and Planning**

Social and economic context; State in India – political culture of the Indian State – Centre – State – Local political economy: 74th Constitution Amendment Act, State Finance Commissions; Emergence of the State in the federal set up.

#### MPL - 2303: POLITICS AND PLANNING

#### **Politics and Civil Society**

Politics and emergence of civil society – NGO, CBO and their role in planning, development and management, collective bargaining and collective action.

## MPL – 2304: DEVELOPMENT FINANCE

#### **Case Studies**

#### MPL – 2305: URBAN RISK AND DISASTER MANAGEMENT

#### **Disaster Mitigation and Management**

Kyoto Framework of Disaster Mitigation and Management; Disaster Management Policies and Act – National and States; Select Global Practices. Disaster Coordination Centres – functions, logistics, operations and planning; Developing and Assessing Disaster Management Plans; Community engagement; Standard Emergency Warning Signal (SEWS); and the Emergency Alert System, Basic Principles of Incident Command System – Facilities, Resource Management, Event Planning Process, Emergency response management principles and concepts; ICT in emergency responses and management;

#### MPL – 2306E: ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT

#### Plans, Policies and Strategies.

Related to energy planning, conservation, climate change mitigation and adaptation.

#### MPL – 2307E: COMMUNITY PLANNING AND PARTICIPATION

#### **Case Studies on Community Participation**

Detailed cases of community participation in areas of provision of housing/shelter, electricity, water supply, sanitation, solid waste disposal, transport, social infrastructure – health, education and cultural facilities; economic upliftment, resource mobilisation; maintenance and management of community assets

#### MPL-2308E: INCLUSIVE CITIES

#### **Best Practices of Inclusive City Planning**

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.

# **M.Plan - Semester IV**

Subject Code	Subject Name	Assigned Credit
MPL-2401	Planning Legislation and Professional Practice	2
MPL-2402	Urban Development Policies	2
MPL-2403	Thesis	16

# M.Plan - Semester IV

Module 16		M 16
<b>Contacts Hours</b>	5	
Subject Code	Subject Name	Max Marks
MPL-2401	Planning Legislation and	20
	Professional Practice	
MPL-2402	Urban Development Policies	20
MPL-2403	Thesis	10

#### **COURSE OBJECTIVES**

#### **Project: Thesis**

#### MPL – 2401: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE

#### **Concept of Legislation**

Significance and Objectives of Legislation; Constitutional basis and provisions relating to land, its development and use; Overview of legal tools in various components of Urban Planning & Development;

#### MPL – 2402: URBAN DEVELOPMENT POLICIES

#### **Public Policy and Planning**

Nature of public problems, planning as a public issue, policy process, limitations in public and private Sector; Strategic policy planning; Overview of policy analysis- scope, significance and contextual perspectives, Public policy delivery agencies and Implementers; Public policy implementation: Gaps and problems

Module 17		M 17
<b>Contacts Hours</b>		
Subject Code	Subject Name	Max Marks
MPL-2401	Planning Legislation and Professional Practice	20
MPL-2402	Urban Development Policies	20
MPL-2403	Thesis	10

### MPL – 2401: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE

#### Planning Legislation

Evolution of Planning Legislation in India; Types and description of various Acts- Town and Country Planning Acts, Improvement Trust Act, Urban Planning and Development Authorities Act- objectives, contents, procedures for preparation and implementation of regional plans, master plans and town planning schemes; Various Acts related to urban governance; land resources, environment protection, public participation in statutory process.

#### MPL – 2402: URBAN DEVELOPMENT POLICIES

#### **Policy Making Process**

Policy Process - problem definition, policy objectives and options, policy implementation, policy evaluation and maintenance; Policy making approaches- Power approaches, Institutional approaches, Strategic Planning, Rational approach and Simon's Rationality Model; Decision-making process and techniques; Policy monitoring- approaches and techniques; Role of non-officials in policy making; Intergovernmental relations and public policy issues; Public policy implementation. Approaches and models; Inter-organizational relations and public policy implementation;

Module 18		M 18
<b>Contacts Hours</b>		
Subject Code	Subject Name	Max Marks
MPL-2401	Planning Legislation and Professional Practice	20
MPL-2402	Urban Development Policies	20
MPL-2403	Thesis	10

#### **COURSE OBJECTIVES**

**Project: Thesis** 

## MPL – 2401: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE

#### **Planning and Development Organizations**

Town & Country Planning Organization, Urban Development Departments, City Improvement Trust, Development Authorities, Municipal Corporation etc. – objectives, functions and duties, organisational structure, technical capacity, statutory obligations, budgetary outlays; coordination and implementation issues

#### MPL – 2402: URBAN DEVELOPMENT POLICIES

#### Policy Scenario Building and Evaluation

Techniques and approaches to policy building; policy evaluation Indicators; policy scenarios formulation; Policy evaluation- role, process and criteria; Policy implementation; performance evaluation and impact.

Module 19		M 19
<b>Contacts Hours</b>		
Subject Code	Subject Name	Max Marks
MPL-2401	Planning Legislation and Professional Practice	20
MPL-2402	Urban Development Policies	20
MPL-2403	Thesis	10

#### COURSE OBJECTIVES

**Project: Thesis** 

#### MPL - 2401: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE

#### **Public Participation in Planning Process**

Role of interdisciplinary groups; community participation process in planning; Appreciation of the decision-making processes, process in relation to varied consultancy assignments of planning.

#### **Professional Activities and Responsibilities**

Aims and objectives of professional institutes and bodies in planning; professional roles and responsibilities of planning consultants; professional ethics; responsibilities towards clients, fellow professionals and general public; Scope of services for different projects; Consultancy agreements and safeguards; Fees and scales of professional charges; negotiation, liability, code of conduct, arbitration

#### MPL – 2402: URBAN DEVELOPMENT POLICIES

#### **Urban Development Policies in India**

National Urban Sanitation Policy, National Urban Housing & Habitat Policy, National Policy for Urban Street Vendors, National Environmental Policy, National Urban Transport Policy, National Water Policy, National Policy on Energy; Emerging policies and programmes of government JNNURM, AMRUT, HRIDAY etc.

Module 20		M 20
Contacts Hours		
Subject Code	Subject Name	Max Marks
MPL-2401	Planning Legislation and	20
	Professional Practice	
MPL-2402	Urban Development Policies	20
MPL-2403	Thesis	10

#### **COURSE OBJECTIVES**

#### **Project: Thesis**

#### MPL – 2401: PLANNING LEGISLATION AND PROFESSIONAL PRACTICE Project Formulation and Implementation

Project context; Project rationale and objectives; Bid documents, Tenders, Contracts ; Implementation approaches and methods, Work plan, Budget, Assumptions, risks and sustainability; Implementation arrangements; Organizational structure and stakeholder involvement mechanisms; Reporting, review, monitoring and evaluation; Dissemination and mainstreaming of project learning

#### MPL – 2402: URBAN DEVELOPMENT POLICIES

#### **Emerging Policy Thrust Areas**

Policies to promote efficient urban spatial development ; development of eco-friendly neighbourhoods; flexible FSI in urban design and planning; transport and land use integration ; integrated spatial and economic planning; inclusionary zoning regulations; renewal of neglected historic districts and derelict inner city areas ; integrating environment in urban planning and development; green urban economy approach; environment and social opportunities of densities; green urban infrastructure ; green urban governance

#### Case Studies on Urban Development Policies

Best practices of urban development and planning policies- approach and impacts; procedure and interdisciplinary issues related to policies.