

**Course Structure & Syllabus of
M.Plan (Urban & Regional Planning)
Applicable for Batch: 2021-2023**

**DIT UNIVERSITY
Dehradun**



**Detailed Course Structure & Syllabus
of
M.Plan - (Urban & Regional Planning)**

**Course Structure & Syllabus of
M.Plan (Urban & Regional Planning)
Applicable for Batch: 2021-2023
Course Structure**

Year: 1

Semester: 1

Course Category	Course Code	Course Title	L/S*	T	P	Credit
DC	AR626	Planning Studio-I	2	0	16	10
DC	AR627	Planning History & Theory	2	0	0	2
DC	AR628	Housing and Environment	2	0	0	2
DC	AR629	GIS & Remote Sensing	1	0	4	3
DC	AR631	Infrastructure & Transportation Planning	3	0	0	3
DC	AR632	Planning Techniques	2	0	0	2
DC	AR633	Urban Management & Governance	2	0	0	2
		Total	14	0	20	24

Year: 1

Semester: 2

Course Category	Course Code	Course Title	L/S*	T	P	Credit
DC	AR634	Planning Studio-II	2	0	16	10
DC	AR635	Regional Planning and Rural development	2	0	0	2
DC	AR636	Planning Legislation & professional practice	2	0	0	2
DC	AR637	Management of Urban Risks and Disasters	2	0	0	2
DC	AR638	Resettlement & Rehabilitation	2	0	0	2
DC	AR639	Socio-Economic base for planning	2	0	0	2
		Total	12	0	16	20

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Year: 2

Semester: 3

Course Category	Course Code	Course Title	L/S*	T	P	Credit
DC	AR714	Planning Studio-III	2	0	20	12
DC	AR715	Thesis Programming	2	0	0	2
ST	AR716	Summer Internship	-	-	-	2
DE		Departmental Elective-1	2	0	0	2
DE		Departmental Elective-2	2	0	0	2
OE		Open Elective	3	0	0	3
		Total	11	0	20	23

Departmental Elective-1

AR-751- Climate Resilient urban development
AR-752- Inclusive cities

Departmental Elective-2

AR-753- Urban development policies and Land management
AR-754- Community participation and planning

Year: 2

Semester: 4

Course Category	Course Code	Course Title	L/S*	T	P	Credit
THESIS	AR717	Thesis Project	16	0	0	16
DE		Departmental Elective-3	1	0	2	2
		Total	17	0	2	18

Departmental Elective-3

AR-755- Housing for special areas
AR-756- Development Finance
AR-757- Intelligent Transport System

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Summary of the Credit

Year	Semester	Max Credit	Min Credit	Total Credit
1	1	24		24
	2	20		20
2	3	23		23
	4	18		18

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023 Detailed Syllabus

Program/Branch: M.Plan

Subject Code	AR 626	Subject Title	Planning Studio-I						
LTP	2 0 16	Credit	10	Subject Category	DC	Year	1 st	Semester	I

Course Objective:

The course objective is to understand the physical planning process through an illustrative study.

Assignment 1 Film Appreciation (Individual assignment)

Films related to city development and socio-economic issues will be screened for students. The purpose of these films is to educate the students' understanding of various development issues and to absorb them in the planning practice. At the end of the film, a discourse around the film will also be held. After viewing the films, each student is expected to write about its main focus city/region context, its applicability to Indian environment by answering the given questions in not more than half a page.

Assignment 2 Article Review (Individual assignment)

Each student is expected to read the article given from a journal/book and write a summary of not more than a page (250 words only) highlighting the problem, approach, methodology, analysis, how the author arrived at the conclusion and its relevance to Indian context. There will be a negative marking for writing the same text as in the original (that is copying from the original text given to them).

Assignment 3 Area Appreciation (Group assignment)

The aim of the area appreciation exercise is to enable the students to understand and contextualize the location of the area in relation to the city, zone and area in which the particular place is situated. This is done in relation to the socio-economic, spatial and cultural characteristics of that city, zone, location, etc. The main purpose is to make the students appreciate the locational attributes of land parcels for future development in a city. Due to the size of the area, this exercise is done in groups of students being assigned to a particular area.

The following planning issues at area level should be identified:

- Review of the Master Plan /Zonal/ Area plan in relation to the selected areas.
- Appreciation/Analysis of ward level data.
- Perception of areas in terms of legal/illegal/authorized/unauthorized, Slums, Urban Aesthetics.
- Social Categorizations of people- Type of population living, people's perception about area and its planning problems.
- Land use including Agriculture land and land use conflicts, extent (percentage) of broad land use such as commercial, industrial, residential, institutional and recreational.
- Extent of formal/informal activities present in the area including their location and conflicts.
- General land tenure of the area and land value for different uses.
- Major types of transport, type of roads, hierarchy of roads, type of transport modes used.
- Amenities: Location of Social and Physical infrastructure and their problems as perceived by local population. Look for specific infrastructure such as Water supply, drainage (water logging areas), waste collection and disposal system, sanitation, etc.

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- Environmental Issues: Open Spaces – Availability and extent of open space to built-up area, garbage disposal, encroachment (through photographic evidences and sketches).
- Locating the study area in the zone, city and regional context with respect to all the above aspects.

Assignment 4 Site Planning (Individual assignment)

Site planning is a process whereby the optimum utilization of potential of site is considered recognizing the constraints the site has. It uses 3-dimensional space of the site and the associated locational advantages, human activities and the regulations that are assigned to a particular site.

The site is developed using a set of standards/norms in a given context which varies from location to location. A student is expected to understand the intricacies and interface between various variables such as soil conditions, topography, environmental dimensions, location, spatial standards applicable to the site, etc.

Factors such as the location and type of land uses and infrastructural facilities require to be considered along with the existing and proposed pattern of future growth. This analysis must take into account the site conditions, proposed infrastructure and the local development byelaws and development controls.

Assignment 5 Outline Development Plan (Group assignment)

A City is a multi-dimensional, dynamic and a futuristic space. Understanding city involves appreciating this multi direction and include them in the city making process. A job of physical planner does not merely understand the current conflict in development but to emerge out of this and to come out with a vision for the city. To arrive at this vision, a planner needs to understand the dynamics of various components of the city and how and what level interventions can be made to achieve that vision.

A group of students are expected to study a city in terms its present problems and issues and project a futuristic vision in terms of scenario building.

LEARNING OUTCOME

- The students are able to understand the various development issues of any city and to absorb them in the planning practice.
- Students are able to highlight the problems, approach, methodology, analysis in relevance to Indian context.
- The students are able to understand and contextualize the locational attributes of land parcels for future development in a city.
- A student is able to understand the intricacies and interface between various variables
- students collectively study a city in terms its present problems and issues and project a futuristic vision in terms of scenario building.

Text book [TB]:

Past studies and project reports

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR627	Subject Title	Planning History and Theory						
LTP	200	Credit	2	Subject Category	DC	Year	1 st	Semester	I

Course Objective:

The objective of this course is to initiate the student to the historic growth and development of settlements across civilizations and the evolution of civic planning as a discipline through theories and concepts of modern planning thought.

The course shall be delivered through theoretical inputs and seminar presentations by students on selected topics.

UNIT 1: 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.

UNIT 2: Planning History

Town planning in ancient India; Medieval, renaissance, industrial and postindustrial 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.

UNIT 3: Definitions and Objectives of Planning

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.

UNIT 4: Theories of City Development and Planning Theories

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.; City of the future and future of the city; Shadow cities, divided cities;

UNIT 5: Models of planning

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.

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LEARNING OUTCOME

At the end of the course, the student can:

- Identify the elements of planning concepts.
- Identify various infrastructure of town and cities.
- To understand the present growth trends and future needs.

Text book [TB]:

1. Planning Theory, Healey P., Pergamon Press
2. Planning Theory, Allmendinger Philip, Palgrave MacMillan
3. Urban Planning: Theory and Practice, Rao M.P., CBS Publishers

Reference books [RB]:

1. Cities of the World: World Regional Urban development, Brunn S.D.et all.
2. City Assembled: The Elements of Urban form through History, Kostof Spiro, Thames and Hudson
3. Contemporary Urban Planning, Levy John M, Longman
4. Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the Twentieth Century, Hall Peter
5. Urban and Regional Planning Since Independence: Retrospect and Prospect: Technical papers, National Town and Country Planners Congress, Mysore, Ministry of Urban Affairs and Employment
6. The Oxford Handbook of Urban Planning, Weber Rachel et all, Oxford University Press
7. Urban Pattern: City Planning and Design, Gallion, Arthur B. and Eisner Simon, CBS Publishers

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Subject Code	AR628	Subject Title	Housing and Environment						
LTP	2 0 0	Credit	2	Subject Category	DC	Year	1 st	Semester	I

Course Objective:

The course would have two sections on housing and environment and introduce the basics of both in relation to each other.

Housing: The objective of this course is to familiarize students with a wide spectrum of aspects related to housing viz., housing scenario, housing needs, housing design, building legislations and relevant methods for formulating housing strategies. The course is introductory in nature, aimed at providing basic knowledge of issues of urban development relevant to housing planning in India.

Environment: The objective of this course is to initiate the students to a discreet understanding of the environment and the interactions and inter-relationships of all living organisms with the physical surroundings. All social, cultural and technological activities being carried by human beings have profound influence on the environment. This course will enable a thorough understanding of all these aspects.

UNIT 1: 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.

UNIT 2: Social and Economic Dimensions

Housing as social security, role of housing in development of family and community wellbeing, 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.

UNIT 3: 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.

UNIT 4: 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 provisions and Case studies of neighbourhood planning.

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UNIT 5: Housing Policies and Schemes

Housing Schemes- Pradhan Mantri Awas Yojna, PM Gramin Awas Yojna, Indira Awas Yojna, Rajiv Awas Yojna

Affordable Housing- Household Affordability, Concept of Affordable Housing, Affordable Housing in India, Affordable Housing Policy 2009, Affordable Housing in Public Private Participation, Emerging thoughts

Housing Policy- Understanding Five Year Plans, National Housing Policy- Review, National Urban Housing and Habitat Policy, Rental Housing Policy, Policy Framework for Urban and Rural Housing, Comparative Policy Analysis

LEARNING OUTCOME

At the end of this course, the students will be able to

- Understand the different housing typologies, social and economic dimensions of housing.
- Understand the standards and norms for development of neighborhoods.
- Understand various housing policies and schemes active in our country.

Text book [TB]:

1. Housing : Changing Needs and New Directions, V. Gandotra, M. Shukul, N. Jaju and N. Jaiswal, Authors press
2. Housing and Urbanisation- A study of India, Cedric Pugh, Sage Publications, New Delhi
3. Housing Policies and Related Acts and Schemes of Government of India
4. Ecology, Impact Assessment and Environmental Planning, Westman W., John Wiley and Sons
5. Integrated Environmental Planning, James K. Lein, Blackwell Publishing
6. 7. Environment and Development : The Place of Human Ecology in South Asian Studies Programme, Rambo, T.

Reference books [RB]:

Housing

1. Housing Laws in India- Problems and Remedies, P.K.Sarkar , Eastern Law House Private Ltd.
2. National Housing Policy, GOI, New delhi
3. Reading Material on Housing, K. Thomas Poulouse, ITPI, India
4. Understanding Housing Policy, Brain Lund, The Policy Press, Great Britain
5. Urban Development and Housing in India- 1947 to 2007, Rishi Muni Dwivedi, New Century Publications
6. Holding Their Ground: Secure Land Tenure for the Urban Poor in Developing Countries, Durand-Lasserve, Royston L, Earthscan Publication, UK
7. Plotting, Squatting, Public Purpose and Politics, Land Market Development, Low Income Housing and Public Intervention in India, Baken, Robert Jan, King's SOAS Studies in Development Geography
8. Shadow Cities: A Billion Squatters, a New Urban World, Neuwirth, Robert Taylor & Francis Group
9. The Urban Housing Manual: Making Regulatory Frameworks Work for the Poor, Payne, Geoffrey and Majale, Michael, Earthscan Publication, UK

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Environment:

1. Fundamentals of Ecology, Odum, E.P., Barrett, G.W., Brewer, R., Thomson Brooks,
2. AITP Reader on Ecology & Resource Development, AITP
3. AITP Reading Material on Environmental Planning and Design, Prof A. K. Maitra , SPA Delhi
4. Ecology and Equity - The Use and Abuse of Nature in Contemporary India, Gadgil, M. and Guha, R., Penguin
5. Environment Crisis and Sustainable Development, Bahuguna, S., Natraj, Dehradun,
6. Environmental Issues and Researches in India, Agarwal, S.K. and Garg, R.K (eds), Himanshu Publications
7. Environmental Law and Policy in India - Cases Materials and Statutes, Divan, S. and Rosencranz A., Oxford
8. Environmental Problems in Third World Cities, Hardoy, J.E., Mitlin, D., and Satterthwaite ,D., Earthscan
9. Our Common Future: The World Commission on Environment and Development, Oxford University Press, Oxford, New York

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Subject Code	AR629	Subject Title	GIS and Remote Sensing						
LTP	1 0 2	Credit	3	Subject Category	DC	Year	1 st	Semester	I

Course Objective: The program is divided into two parts. The first part involves learning of basic techniques such as GIS applications, remote sensing and statistical applications. The second part contains a number of plan preparation assignments.

UNIT 1: GIS Applications

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.

UNIT 2: Remote Sensing

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, temporal resolutions. Applications in planning, population estimation, identification of squatter / unauthorized areas, sources of pollution, etc., spatial resolution related to level of Planning

UNIT 3: 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;

UNIT 4: Statistical Applications

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

LEARNING OUTCOME

At the end of this course, the students will be able to

- Have a robust understanding about theory and systems of modeling and sensing
- Apply tools for a comprehensible and analytical understanding of a place

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Text book [TB]:

1. Remote Sensing and GIS Integration: Theories, Methods and Applications, Qihao Weng, McGraw Hill Professional
2. Remote Sensing and GIS, Basdudeb Bhatta, Oxford University Press
3. Applied Remote Sensing in Urban Planning, Governance and Sustainability, Netzband, Springer, India

Reference books [RB]:

1. Advanced Surveying: Total Station, GIS and Remote Sensing, Satheesh Gopi, Pearson
2. Environmental Modelling with GIS and Remote Sensing, Andrew Skidmore et al, CRC Press
3. Geographic Information Systems and Science, PA Longley et al, John Wiley and Sons Ltd.
4. GIS, Spatial Analysis, and Modelling, David J Maguire et al, ESRI Press
5. Landuse Change Detection using GIS, Remote Sensing and Spatial Matrices, Mesfin T Bekalo et al, Lap Lambert Academic Publications
6. Lans Sustainability Evaluation using GIS and Remote Sensing Technology, Mezenzia Mengist, Vdm Verlag
7. Remote Sensing and Image Interpretation, Thomas M Lillesand et al, John Wiley and Sons Ltd.

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Subject Code	AR631	Subject Title	Infrastructure and Transportation Planning						
LTP	200	Credit	3	Subject Category	DC	Year	1 st	Semester	I

Course Objective:

The course would include one part on the design principles of transport planning and another on services and utility networks and facilities.

Utility Networks Planning

The focus of the Utilities Planning course is on principles of design of utilities and services in urban and regional context and familiarizing with Indian standards of design. The course will focus on acquainting students to latest technological innovations in utility services.

Transportation Planning

The objective of Transportation Planning is to provide basic information on transportation issues. Students will be familiarized with (i) geometric design of road networks and (ii) traffic

UNIT 1: Role of Infrastructure in Development

Elements of Infrastructure (physical, social, utilities and services); 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.

UNIT 2: Planning and Management of Water, Sanitation and Storm Water

Water – 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; Sanitation – points of generation, collection, treatment, disposal, norms and standards, grey water disposal, DEWATS, institutional arrangements, planning provisions and management issues.

Storm water – 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;

UNIT 3: Planning and Management of Municipal Wastes, Power and Fire

Municipal and other wastes – 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.

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UNIT 4: City Development and Transport Infrastructure Planning, Management and Design

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; 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.

Learning Outcome

1. Student shall be able to understand the concepts, principles and hierarchy of physical infrastructure, utilities,
2. Shall be able to understand municipal systems such as water, sanitation, power systems, etc and their associated norms and standards so that issues can be managed effectively.
3. Able to understand transportation systems and its role in effective management of city infrastructure

Text book [TB]:

1. Urban Transport: Planning and Management, A K Jain, APH Publishing
2. Regulation and the Management of Public Utilities, C. S. Morgan, Gale

Reference books [RB]:

Utility Networks Planning

1. Environmental Engineering, Howard S. Peavy, Tata Mc Grawhill
2. Water Supply Engineering, S. K. Garg, Khanna Publishers
3. Manual on Sewerage and Sewage Treatment, CPHEEO
4. Urban Planning Manual, AILGS Reader
5. Solid Waste Management, Krishana Gopi Sanoop P, Sasikumar K, Phi Learning
6. Solid Waste Management, Dewan, Sudarshan, Discovery Publishing House
7. Telecommunication Management Networks (TMN) Implementation, Amani Omer, Lambert Academic Publishers 6.
8. Firefighting: Management and Techniques, Overton Frank, Inkata
9. Water Supply Engineering: Environmental Engineering – I, Arun Kumar Jain, Ashok Kumar Jain, B. C. Punmia, Laxmi Publications

Transportation Planning

1. Traffic Engineering and Transport Planning, L.R. Kadiyali, Khanna Publications
2. Transportation Engineering and Planning, Author: C. S Papacostas, P. D Prevedouros, Publisher: PHI Learning
3. Principles of Urban Transport Systems Planning, B.G. Hutchinson, McGraw Hill

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Subject Code	AR632	Subject Title	Planning Techniques						
LTP	200	Credit	2	Subject Category	DC	Year	1 st	Semester	I

Course Objective:

The objective of the course Planning Techniques is to introduce techniques used for planning at various stages from preliminary to advanced. As this is a subject from integrated course the techniques broadly used by all courses of specialization have been considered while designing this course. At the end of the course student should be able to use the techniques in respective studio works. Appropriate Software applications in CAD and GIS would also be taught as part of this course.

UNIT 1: Survey Techniques and Mapping

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.

UNIT 2: Analytical Methods

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;

UNIT 3: Demographic Methods

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

UNIT 4: Planning Standards

Spatial standards, performance standards and benchmarks, and variable standards; UDPFI guidelines, zoning regulations and development control rules and regulations.

Learning Outcome

At the end of this course, the students will be able to

- Understand the survey and mapping techniques in planning.
- Understand the methods of population forecasts and projections
- Understand the planning standards, zoning guidelines and regulations.

Text book [TB]:

1. Planning Techniques for AITP, Reader on Institute of Town Planners India

Reference books [RB]:

1. Urbanisation and Urban Systems in India, Ramchandran R. Oxford University Press

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2. Cities Urbanisation and Urban Systems, Siddhartha K. and Mukherjee S., Kishalay Publications
3. Regional Planning, Glasson J., Open University Press
4. Economic and Social Geography Made Simple, Knowles R. and Wareing J., Rupa and Company
5. Concepts and Techniques of Geographic Information Systems, Lo C.P. and Yeung A.K.W., PHI Learning Private Limited
6. UDPFI Guidelines Volume 1, Ministry of Urban Affairs and Employment Govt. of India, New Delhi
7. Remote Sensing and Image Interpretation, Thomas M. Lillesand et al, John Wiley and Sons Ltd.
8. Remote Sensing and GIS, Basudeb Bhatta, Oxford University Press
9. Spatial Analysis, Mark R. T. Dale, Marie-Josée Fortin, Cambridge University Press

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Subject Code	AR633	Subject Title	Urban Management and Governance						
LTP	200	Credit	2	Subject Category	DC	Year	1 st	Semester	I

Course Objective:

The primary purpose of this course is to apprise the students of the Urban governance framework at sub provincial level and resource mapping of local governments with special emphasis on municipal governments in our country.

UNIT 1: 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; Application of management techniques in urban planning and development.

UNIT 2: Land Economics 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.

UNIT 3: 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;

UNIT 4: 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; Organizational Restructuring of Local Governments; capacity building; NGO's.

UNIT 5: Participatory Process in Urban Governance

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

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Learning Outcome

At the end of this course, the students will be able to learn about

- The principles and factors affecting the real estate market
- Concepts and organizational framework of urban governance.
- Functions and working of organizations and institutions in governance and their associated roles and responsibilities.

Text book [TB]:

1. India: The Challenges of Urban Governance, O.P. Mathur, National Institute of Public Finance and Policy, New Delhi
2. Local Governance in India – Niraja Gopal et al., Oxford University Press

Reference books [RB]:

1. Constitution of India, D.D. Basu, S. Chand and Sons, New Delhi
2. Democracy, Development and Decentralisation – Continuing Debates, Taylor and Francis, India
3. New Forms of Urban Governance in India, Baud I.S.A. et al., Sage
4. People's Participation in Urban Governance, K.C. Sivaramkrishnan, CSS, New Delhi
5. Urban Governance and Management: Indian Initiative, P.S.N. Rao, Kanishka Publishers
6. Leadership and Team Building, Uday Kumar Halder, Oxford University Press
7. Developing Countries, Bahl Roy W. Et al., Oxford University Press
8. New Issues in Panchayati Raj, D. Bandopadhyay et al., Concept Publishing
9. 14. Municipal Finance in India – An Assessment, P.K. Mohanty et al, Reserve Bank of India
10. Municipal Finance – A Handbook for Local Government Practitioners, World Bank
11. Federalism and Fiscal Transfers in India – C. Rangarajan et al., Oxford University Press
12. Costs and Challenges of Local Urban Services: Evidence from Indian Cities – O.P. Mathur et al., Oxford University Press
13. Fiscal Federalism in India – Vithal & Sastry, Oxford University Press

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Semester - II

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR634	Subject Title	Planning Studio-II						
LTP	2 0 16	Credit	10	Subject Category	DC	Year	1 st	Semester	II

Course Objective:

The thrust of this studio would be on regional planning and would include the preparation of a regional development plan for a selected area.

Course Contents:

- Defining characteristics of identified areas
- Case study and literature review of planning concepts and norms for the selected area/special area
- Selection of site and collection data (field trip of 2 weeks duration)
- Data analysis and presentation
- Outline framework of development – sectoral and spatial
- Implementation framework – capital investment and funding methods
- Financial feasibility
- Governance and management aspects.

Learning Outcome

- Students will be able to understand the planning concepts and norms for selected study areas.
- Students will learn how to analyze the data collected from primary and secondary surveys.
- Students will learn about the governance and management aspects of the study area.

Text book [TB]:

Project reports, Development Plans, Master Plans of different cities and regions.

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Subject Code	AR635	Subject Title	Regional Planning and Rural Development						
LTP	200	Credit	2	Subject Category	DC	Year	1 st	Semester	II

Course Objective:

The course attempts to understand the theoretical basis for various concepts and analytical tools of Regional Planning and learn the practice of regional planning in the Indian context. Elements of settlement system in the regional context are also incorporated in this course. The course provides an in-depth understanding of the issues of regional development, regional disparity and the need for balanced regional development in the context of globalization and rapid economic transformations in the country. Regional policies and sectoral policies are also discussed. Metropolitan regions, districts as planning regions and rural planning issues are discussed in the wider spectrum of holistic regional planning and development.

UNIT 1: Concepts and Typology of Regions and Regional Dynamics

Basic Concepts in Regions, Defining a region: fluidity and purposiveness, Typology of Regions: Resource Regions, Mega, Macro, Meso, and Micro Regions; Regional Dynamics: Growth of Mega and Metro Regions: Scale, Complexity and its impact on national and international scenario, convergence and divergence. Regional Economy, competitiveness among regions, backward and leading regions in development; Special Regions: SEZ, Agro Regions, Ecological regions, etc.

UNIT 2: Regions in India and Its Planning

Regions in Indian Context: Resource Regions, Corridors as regions, National, sub-national and State as a region, macro, meso and micro regions in India. Case Studies from India: NCR and Delhi Mega Region, Mumbai Mega Region, Kolkata Metro Region, Chennai Metro Region, and other Metro Regions in India.

UNIT 3: Core and Periphery in a Region in Indian Context

Core, Fringe and Periphery in a Region and its planning; Tools and techniques available for planning regions in India; Role of 73rd and 74th Constitution Amendment Acts in regional plan preparation and implementation.

UNIT 4: District Planning

Data Management and District Level Visioning, Institutional and other support for District Planning Committee, Bridging gap through district planning, resource mapping and determination of funding sources, consolidation of urban and rural plans; Multi-Sector and multi-level integrated approach to planning (vertical and horizontal spatial integration); Rural-Urban spatial relationship; District Development Plans – Guidelines for District Planning: Content and context and methodologies, Village Development Plans – an Integrated approach, rural norms and standards (spatial). Capacity Building for Decentralized Planning; Democratizing Information: using media for district development.

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

UNIT 5: Rural Development and planning for Hilly areas

Introduction: Meaning and Scope and overview of rural development: Historical perspective – Rural Development Programmes in India. Problem / perception and identification; Rural Area Planning – Programmes / Policies / Schemes for rural development, their coverage and outcomes; Rural Infrastructure Development: Bharat Nirman – A business plan for rural infrastructure, Rural Building Centers, PMGSY, IAY, Rajiv Gandhi Technology Mission, Central Rural Sanitation Programme, PURA. Rural Employment Schemes: Mahatma Gandhi National Rural Employment Guarantee Act, 2005, Sampoorna Grameen Yojana, National Food for work programme, Swarna Jayanti Gram Swarozgar yojana, National Social Assistance Programme. Programmes: Command Area Programme, Drought Prone Area Programme, Backward Area Development Programme, North Eastern Development Programme. Technology Missions: Water, Sanitation, etc

Hill Areas Development Programme (HADP): Problems of Hill Areas: Classification of Hill Areas: Pattern of Funding: Hill Areas Development Programme (HADP) - Objectives, Approaches and Strategies: Allocation of Special Central Assistance: Western Ghats Development Programme (WGDP): Sub-Plan Approach: North Eastern Council (NEC): Boarder Area Development Programme (BADP)

Learning Outcome

At the end of this course, the students will be able to

Understand the various typologies of regions in planning.

Understand the regional dynamics and planning.

Understand about the resource regions, core and periphery in regions of India.

Students are expected to have obtained the skills in understanding the District Planning, integrated district planning, participatory district planning, rural development and planning for hilly areas in all its dimensions, once they undergo this course.

Text book [TB]:

1. Regional Planning – Concepts, Techniques, Policies and Case Studies, Misra, R.P., New Delhi
2. Regional Development Planning in India, R.P Mishra, Vikas, Delhi.
3. Regional Planning and Development, Qaiyum, A., ITPI, New Delhi

Reference books [RB]:

1. Regional Planning and Development, Rangasamy, S., Madurai
2. An Introduction to Regional Planning – Concept, Theory and Practice, Glasson, John: Susesex
3. GoI: Ministry of Rural Development, Department of Land Resource, Desert Development Programme, New Delhi
4. GoI: Planning Commission, Report on Development of Drought Prone Areas by National Committee on the Development of Backward Areas, New Delhi
5. GoI: IWMP, Ministry of Rural Development, New Delhi
6. GoI: Ministry of Development of North Eastern Region, New Delhi
7. Small and Medium Towns and Their Role in Regional Development, H.S. Yadav et all, Gyan Publishing House

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8. The Role of Intermediate Towns in Regional Development : A Case Study, National Institute of Urban Affairs (NIUA), NIUA, New Delhi
9. Planning Development for Metropolitan Region, K K Pandey, IIPA
10. Rural Development, Jain S.C.
11. Rural Development through Decentralization, Kumar B Das.
12. Rural Development in India Poverty and Development, Venkata Reddy K
13. Rural Development, Principles, Policies and Management, Katar Singh, Sage, New Delhi
14. Readings Material on Village Planning and Rural Development, H.B Singh, ITPI, New Delhi
15. District Planning: A Handbook, R.P. Mishra. Concept Publishing House, New Delhi
16. Model village: Perspectives for Rural Development” Ghaziabad: Copal publishing group by Dr. Vinita Yadav and Meet Fatewar.

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR636	Subject Title	Planning Legislation and Professional Practice						
LTP	200	Credit	2	Subject Category	DC	Year	1 st	Semester	II

Course Objective:

The objective of this course is to initiate students with the various legislations in existence in India which have an impact on urban and regional planning and development and also understanding the professional activities and responsibilities.

UNIT 1: 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.

UNIT 2: Planning and Development Organizations

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

UNIT 3: 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.

UNIT 4: 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

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

UNIT 5: 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

Learning Outcome

At the end of this course, the students will be able to

- Understand about the functions and regulations of planning and development authorities in India.
- Understand the planning and development acts to be followed in India.
- Understand the process of project implementation and management on field.

Text book [TB]:

Reference books [RB]:

1. Town and Country Planning Act (any State Act)
2. Model Municipal Act, Ministry of Urban Development, Government of India
3. Nagar Raj Act (any State Act)
4. Environment Protection Act (Central Act)
5. Mining and Forestry Act (Central Act)
6. Building Byelaws (any State Act)
7. Apartment Ownership Act (any State Act)
8. Development Authority Act (any State Act)
9. Water Bodies Conservation Act (any State Act)

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR637	Subject Title	Management of Urban risks and Disasters						
LTP	200	Credit	2	Subject Category	DC	Year	1 st	Semester	II

Course Objective:

The objective of this course is to initiate students with the issues of various types of natural and man-made Disasters and impart techniques of mitigation and management.

UNIT 1: Urbanisation and Associated Risks

Urbanisation patterns, 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

UNIT 2: 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

UNIT 3: 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

UNIT 4: 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;

Learning Outcome

Approved by the Academic Council at its 17th Meeting held on 24.03.2021

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Students will be able to learn about-

- Various concepts necessary for deeper understanding of the subject and framework in place.
- The government system and its hierarchy for operation and management.

Text book [TB]:

1. Disaster Management Handbook, Pinkowski J., CRC Press
2. Disaster Recovery, Brenda D. Phillips, CRC Press

Reference books [RB]:

1. Earthquake Architecture: New Construction Techniques for Earthquake Disaster Prevention, Garcia, Belen, New York, Loft Publications
2. Environmental Hazards : Assessing Risk and Reducing Disaster, Smith, K., David P., London, Routledge Publications
3. Handbook of Disaster Research, Rodriguez, H., ed., Quarantelli, E., ed., Dynes, R.R., ed., New York, Springer Science

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR638	Subject Title	Resettlement and Rehabilitation						
LTP	200	Credit	2	Subject Category	DC	Year	1 st	Semester	II

Course Objective:

The objective of this course is to understand land development process in planning and impact of resettlement and rehabilitation policies in urban planning.

UNIT 1: Land Development and Resultant Resettlement

Land Acquisition Models and Practices in India and elsewhere for projects. Compulsory Acquisition, land sharing and adjustment models, land pooling, negotiated land acquisition. Development induced relocation – voluntary and involuntary resettlement; Resettlement and Rehabilitation Policies. Policies of multi-lateral / bilateral funding institutions: World Bank, Asian Development Bank Policies, National Policy on Resettlement and Rehabilitation and State Policies on R and R and Sector Specific Policies in large projects such as Multi-Purpose Dam Projects, Mining projects, Highway projects, SEZ, etc.

UNIT 2: Impact of Resettlement and Rehabilitation (R and R) Plan

Poverty and Social Impact Assessment for Development projects: Linear Projects (Roads, railways, etc), vis-à-vis non-linear projects (Township / industrial area development, dams, forests). Impact on vulnerable and indigenous groups: Project Affected People and Project Affected Assets, Impact on Women and Children, Gender Action Plans. Resettlement Plan: Context, content, structure, principles and practices: Economic, social and physical implications of resettlement and rehabilitation. Resettlement options and strategies, Self-relocation and project facilitated relocation; Case studies in Resettlement and Rehabilitation in Development Sectors: Mining, Highways, Power, industrial and township development. Flood affected areas and other infrastructure projects such as Mumbai Transport Project.

UNIT 3: Rehabilitation

Rehabilitation: Policies, Assessing the livelihood losses, livelihood impact assessment and skill mapping surveys, income restoration strategies, training strategy for skill upgradation and meeting demands for shifting economic profiles in the development area.

UNIT 4: Participation as an Important Tool for Resettlement and Rehabilitation

Use of Participatory tools for Resettlement Planning. Institutional arrangements for R and R – Role of NGOs / CBOs and other local, state, national and international organizations in resettlement and rehabilitation, Monitoring and Evaluation of R and R interventions.

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Learning Outcome

Students are expected to have obtained the skills in understanding various issues related to Resettlement and Rehabilitation due to Development induced displacement and natural displacement and how to minimize the problems associated with it through proper planning as well as participatory approaches.

Text book [TB]:

Reference books [RB]:

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR639	Subject Title	Socio-Economic Base for Planning						
LTP	200	Credit	2	Subject Category	DC	Year	1 st	Semester	II

Course Objective:

The objective of the course is to understand the nature of social issues prevalent in the country. To understand the impact of socio-cultural aspects on community and settlements. To understand the elements of Indian economics.

UNIT 1: Nature and Scope of Sociology

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, gender, health safety, and marginalized groups; Displacement, resettlement and rehabilitation due to compulsory land acquisition.

UNIT 2: Community and Settlements

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.

UNIT 3: Elements of Micro and Macro Economics

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.

UNIT 4: Development Economics and Lessons from Indian Experiences

Economic growth and development, quality of life; Human development index, poverty and income distribution, employment and livelihood; 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.

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Learning Outcome

Students will be able to learn about

- Socio-cultural profile of Indian society and urban transformation
- Problems and potentials for different communities and settlements
- Micro and macro elements of economics by understanding the different market structures and determinants of national income, consumption and unemployment etc.
- Socio- Economic and planning strategies

Text book [TB]:

Economics:

1. Economics, Paul A. Samuelson et al, Tata Mc Graw Hill Publication
2. Micro Economics, Dominick Salvatore, Schaum's Outline Series, Mc Graw Hill
3. Micro Economics, N.C. Ray, Macmillan
4. Micro Economics, Anindya Sen, Oxford University Press
5. Economics, Alec Chrystal et al, Oxford University Press

Urban Sociology

1. Sociology, Anthony Giddens, Wiley
2. Sociology, John J. Macionis, Pearson
3. Urban Sociology : Images and Structure, Flanagan, William G., Prentice Hall
4. Urban Problems in Sociological Perspective, Shannon, Thomas R., Waveland Press Inc
5. The Metropolis and Mental Life, Simmel, Georg, New York: Free Press
6. Key Concepts in Urban Studies, M. Gottdiener, Sage London

Reference books [RB]:

Economics:

6. Economics – An Analytical Introduction, Amos Witztum, Oxford University Press
7. General Economics, Deepashree, Tata Mc Graw Hill Publication
8. Economics – A Primer for India, G. Omkarnath, Orient Blackswan

Urban Sociology

7. Sociological Thought, Abraham M. F. and Morgan J. H., MacMillan India, Madras
8. The Oxford Companion to Sociology and Social Anthropology, Das Veena, Vol. I and II, OUP, New Delhi
9. Social Change in Modern India, Srinivas M. N., Oxford University Press, Delhi.
10. A Subaltern Studies Reader, Guha R., Oxford University Press, New Delhi
11. The Sage Handbook of Sociology, Bryn Turner et al, Sage
12. Capability and Well-Being, Sen, Amartya and M. Nussbaum. Oxford Clarendon Press
13. Inclusive Growth In India, R.U. Singh A.K. Thakur, Deep and Deep Publications
14. Sen's Capability Approach and Gender Inequality: Selecting Relevant Capabilities. Feminist Economics Robeyns, Ingrid
15. Planning a Barrier Free Environment, Office of the Chief Commissioner for Persons with Disabilities, India

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Semester - III

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR714	Subject Title	Planning Studio-III						
LTP	2 0 20	Credit	12	Subject Category	DC	Year	2 ND	Semester	III

Course Objective:

Comprehensive and inclusive study for preparation of Master plans for urban areas.

Assignment 1 - Minor Problem

- Planning evaluation and appraisal of small & medium town/ central metropolitan areas/business districts/residential/industrial areas/ schemes

- Identify and explain the objectives of the problem

- Surveys conducted for the preparation of plan
- Growth -physical, socioeconomic, growth potentials and constraints
- Evaluation of policy related to any one land use
- Planning proposals
- Implementation procedures and development control regarding land use selected by you
- Appraisal of plan in typed report, hard bound A-4 size

Assignment 2 - Major problem

- Preparation of Zonal development plans for small & medium town/ central metropolitan areas/business districts/residential/industrial areas schemes with

- Surveys
- Data collection
- Maps preparation

Planning proposals & analysis, calculation, recommendations

Learning Outcome

- Students will be able to access the influenced area and associated transit infrastructure.
- Students will be able to examine change in land use, activity pattern and built environment in the selected study area.
- Students will be able to investigate change in socio economic characteristics of the special areas over the period of time.

Text book [TB]:

Project reports, Development Plans, Master Plans of different cities.

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Subject Code	AR715	Subject Title	Thesis Programming						
LTP	2 0 20	Credit	2	Subject Category	DC	Year	2 ND	Semester	III

Course Objective:

To introduce students to literature review, research processes, techniques and colloquial arguments, so as to help them finalise a topic for their thesis in the subsequent semester. Two seminars would be conducted in the course of the semester to initiate the process of literature review related to their areas of interest culminating in selection of an appropriate thesis topic.

Course Contents:

- Identification of topic of interest having relevance to planning profession, integration and application of the learnt research processes to the pre-thesis work
- Book reviews and journal article compilation to establish the body of work existing in the selected area of work
- Collection of data and opinions by the stakeholders, decision makers, urban managers, advocates, technocrats, user groups, etc. on the topic selected.
- Based on the literature review and inputs from the colloquial arguments, the topics shall be finalised for thesis in the subsequent semester.
- Selection of study area, identification of extent and spread of intervention; collection of data for preparation of base map.
- Development of research thrust and work methodology. Identification of data sources.
- Data collection and analysis: sample determination, data tabulation (coding, de-coding, etc.), quantitative and qualitative data analysis. Appropriate and relevant data analysis methods would need to be studied by individual students based on thesis topic and research area.
- Finalisation of topic; formulation of problem statement, literature review, working hypothesis, research brief, research methodology, sample determination, data collection and analysis, report structuring.
- The student will be required to make two seminar presentations and submit a report at the end of the semester which will qualify as the literature review and research methodology component of his/her thesis in the forthcoming semester.

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Subject Code	AR716	Subject Title	Summer Internship						
LTP	---	Credit	2	Subject Category	ST	Year	2 ND	Semester	III

Course Objective:

To expose the students to the profession of planning and foster links with the industry so as to develop an understanding of professional nature of various organizations involved in the planning profession. The student is required to undertake summer training after 2 semesters of course work in any government, private or research organization undertaking urban and regional planning works. The practical training will commence during the summer break between second and third semester.

Course Contents:

- The student is expected to work on any project/s related to urban planning or any specialization such as infrastructure planning, environmental planning, transportation planning, housing etc.
- Individual contribution of the student in the project handled, in any of the stages of work undertaken (data analyses, project formulation, policy framing etc.) is expected.
- Each student shall have to undergo professional training for a period of at least 6 weeks in an establishment approved by the class coordinator and professor in charge.
- A student will be required to submit a performance report from the planner under whom training is undertaken as well as a detailed report on the work carried out by him during the training.
- The contents of the report should include brief introduction of organization and works undertaken, description of project/s worked on, role of individual student supported by data/evidences from the organization.
- The students would be evaluated on the basis of the report submitted and presented as a seminar at the time of viva-voce and the report received from the organization.

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR751	Subject Title	Climate Resilient urban Development						
LTP	1 0 1	Credit	2	Subject Category	DE	Year	2 ND	Semester	III

Course Objective:

The objective of course is to understand the global climate change and its impact in urban areas, and studying the climate resilient policies and practices.

UNIT 1 : Global Climate Change

Basics of Climate Change- Greenhouse Gases, Anthropogenic Causes, Carbon Cycle, Global Warming, key associated planning terms- climate variability, Exposure, mitigation, resilience, adaptation; Inventory of GHGs; Climatic Change and Human History

UNIT 2: Urbanization and Climate Change

Urbanization patterns, resource intensities, energy consumption in cities, determinants of energy demand; Urban Heat Islands; phenomenon of climate change, factors influencing climate change, climate risks to cities- floods, storm, sea levels rise, water supply, high temperature, heat waves, health risks; environment issues for cities

UNIT 3: Climate Change Impacts

Impacts of Climate Change, Climate as forcing variable, locational attributes, sensitivity and vulnerability assessment of different sectors, Extreme events and their effects; cities as drivers of climate change; impact of climate change on cities; need for mainstreaming climate change in city development strategies

UNIT 4: Climate Resilient Policies for cities

Urban vulnerability to climate change; Need for city resilience, Policies related to energy planning, conservation, climate change mitigation and adaptation; paradigm shift to resilient cities- renewable energy cities, carbon neutral cities, distributed cities, eco-efficient cities, sustainable transport cities; Low carbon urban development strategies- Concept of 3-Rs: Recycle-Reuse and Recovery; Compact City Concept; strategies for integrating environment in urban planning and management

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UNIT 5: Climate Change in India and Policy Efforts and Best Practices

Trends of climate change in India, policy efforts, mechanism and measures for mitigating and adapting to climate change; impacts of policy efforts

Case studies on climate resilience in cities of the world; policy guidelines for integrating climate change into city development strategies , Guiding principles for city climate action planning

Learning Outcome

- Students will able to understand about the global climate change and its impact on urban areas and vice versa.
- Students will able to understand trends, policy efforts and guidelines for integrating climate change.

Text book [TB]:

Reference books [RB]:

The Impact of COVID-19 Pandemic on Green Societies: Environmental Sustainability, editors: Chakraborty,c.,Roy, S., Sharma,S.,Tran,T.A

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR752	Subject Title	Inclusive Cities						
LTP	200	Credit	2	Subject Category	DE	Year	2 ND	Semester	III

Course Objective:

The objective of this course is to understand the importance of inclusive development and its principles in the field of urban planning.

UNIT 1: Importance of Inclusive Development and Stakeholders

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
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

UNIT 2: 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

UNIT 3: 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, pre-requisites

UNIT 4: Management of Inclusive Cities and Best Practices

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.

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Learning Outcome

- Students will be able to understand the importance of inclusive development in various settlements in an urban area.
- Students will understand that how participatory planning plays a major role in inclusive development.
- Students will be able to implement principles of inclusive development in their practice by studying the best practices related to it.

Text book [TB]:

1. Jain, A.K. (2011). “The Informal City: Inclusive Growth for Poverty Alleviation”, Readworthy Publications (P) Ltd., Delhi.
2. Chattopadhyaya, S. (2009). “New Essays on Inclusive Housing”, McMillan India Ltd., Delhi
Inclusive Growth In India, R.U. Singh A.K. Thakur, Deep and Deep Publications

Reference books [RB]:

1. From unsustainable to inclusive cities – edited by David Westendorff- UNRISD publications
2. Cities for People, Not for Profit: Critical Urban Theory and the Right to the City, by Neil Brenner, Peter Marcuse, and Margit Mayer eds.

Citizenship and the right to global cities: Reimagining the capitalist world order -by Mark Purcell

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR753	Subject Title	Urban Development Policies and Land Management						
LTP	1 0 1	Credit	2	Subject Category	DE	Year	2 ND	Semester	III

Course Objective:

The objective of this course is to understand the public policy and planning and its processes with focus on urban development policies in India. Understanding land management and policies in India.

UNIT 1: 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

UNIT 2: 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;

UNIT 3: 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.

UNIT 4: 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.

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UNIT 5: Land Policies and Types of Land Management

Land policy objectives and policy options for public intervention; Techniques of land assembly and expropriation, development components and financing land development; Institutional and political concerns in land management.

Various approaches viz. land pooling/land readjustment, TP Schemes, Public Private Partnerships for land assembly, role of the private sector in land assembly, land management thru' Township Policies of various state governments, international and domestic case studies.

Learning Outcome

- Students will be able to understand urban development policies and its processes in planning.
- Students will be able to understand about policy scenario building and evaluation.
- Students will be able to identify the thrust areas by doing case studies of urban development policies.

Reference books [RB]:

1. Urban Regeneration Handbook, Roberts and Sykes, Sage
2. Urban Planning and Development Process in Renewal, D. Adams, UCL press, London.
3. Management of Regeneration, Diamond and Little, Routledge, London.
4. An Introduction to Urban Renewal, Michael Gibson, Hutchinson.
5. Urban Renewal: Theory and Practice, Chris Coch, Macmillan.
6. Gentrification and Urban Change, Ray Huthinson, JAI press.

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR754	Subject Title	Community Planning and Participation						
LTP	200	Credit	2	Subject Category	DE	Year	2 ND	Semester	III

Course Objective:

To understand the formulation of long-range visions, goals, policies, and strategies for achieving social, economic, and environmental sustainability within a community to guide future community development.

UNIT 1: Overview of Communities and Community planning principles

Overview of communities – definition, type, attributes, activity patterns, locational patterns; socio-cultural aspects; community needs and spatial requirements; socio-economic implication, Community planning- Principles, approaches and key considerations; spatial-socio-economic linkages; inclusion and quality of life; neighborhood planning; local area planning

UNIT 2: 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

UNIT 3: Role of Community Participation

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

UNIT 4: Process of People's Participation

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

Learning Outcome

1. Students will explore different approaches and considerations of community planning.
2. Students will be able to develop a framework of evaluative indicators for the investigation of the effectiveness of community involvement in urban and regional development.

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Text book [TB]:

1. Holding Their Ground: Secure Land Tenure for the Urban Poor in Developing Countries, Durand-Lasserve, Royston L, Earthscan Publication, UK
2. Plotting, Squatting, Public Purpose and Politics, Land Market Development, Low Income Housing and Public Intervention in India, Baken, Robert Jan, King's SOAS Studies in Development Geography
3. Shadow Cities: A Billion Squatters, a New Urban World, Neuwirth, Robert Taylor & Francis Group
4. The Urban Housing Manual: Making Regulatory Frameworks Work for the Poor, Payne, Geoffrey and Majale, Michael, Earthscan Publication, UK
5. E-Book of Ministry of housing and Urban poverty Ministry of housing and Urban poverty, Govt. of India (2016), (<http://mhupa.gov.in/ebook/index.html#features/5>).
6. Housing for the Urban Poor in Developing Countries, Aldrich, B. and Sandhu R.S. (2015), Rawat Publications, Jaipur.
7. Understanding Urban Poverty in India, Brito, O. and Singh, A. (2014) Rawat Publications, Jaipur.
8. 4. Impact of Investments in the Housing Sector on GDP and Employment in the Indian Economy
9. (2014). Study supported by DFID and Ministry of Housing and Urban Poverty Alleviation,

Reference books [RB]:

10. National Council of Applied Economic Research (<https://www.google.co.in/#q=Impact+of+Investments+in+the+Housing+Sector+on+GDP+and+Employment+in+the+Indian+Economy>)
11. in/#q=Impact+of+Investments+in+the+Housing+Sector+on+GDP+and+Employment+in+the+Indian+Economy)
12. ndian+Economy)
13. "Report of Expert Group to Recommend the Detailed Methodology for Identification of Families living below Poverty line in Urban Areas" Planning Commission, Govt. of India, (2012).
14. "Report of the working group on Urban Poverty, slums, and service delivery system, Steering Committee on Urbanization", Planning Commission, Govt. of India, (2011). New Delhi.
15. "The Informal City: Inclusive Growth for Poverty Alleviation" Jain, A.K. (2011)., Readworthy Publications (P) Ltd., Delhi.
16. "New Essays on Inclusive Housing", Chattopadhyaya, S. (2009). McMillan India Ltd., Delhi
17. "Urban Development and Housing in India" Dwivedi, R.M. (2007)., New Century Publication, New Delhi.
18. "Housing", Bhole, V. (1998). Classical Publication Company, New Delhi.
19. "Role of Private Sector Housing", Wadhwa, K. (1987). Dhanpat Rai Publications, New Delhi.
20. Delhi.
21. "Urban Housing in India", Gupta, D. B. (1985). World Bank.
22. "Low Cost Housing in Developing Countries", Sharma, L.R., (1985). New Delhi.
23. "The Form of Housing", Van Nostrand Reinhold Company, Davis, S. (1978). New York.
24. "Cities and Housing" Muth, F. (1969). The University of Chicago Press, London.

"The Sociology of Housing" Morris, R.N. (1965). Alden Press Limited, London.

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Semester - IV

**Course Structure & Syllabus of
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Subject Code	AR717	Subject Title	Thesis						
LTP	16 0 0	Credit	16	Subject Category	DC	Year	2 ND	Semester	IV

Course Objective:

Students are expected to write a thesis on the topic selected by them with the constant guidance from faculty members. Students are expected to have obtained the skills in understanding the various aspects of urban and regional planning and apply them in their thesis work.

Learning Outcome

Students will be able to extend and submit the selected project study in respect of its objectives and recommendations.

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR755	Subject Title	Housing for Special Areas						
LTP	2 0 0	Credit	2	Subject Category	DE	Year	2 ND	Semester	IV

Course Objective:

The objective of this course is to study housing typologies for special areas and special groups.

UNIT 1: Special Areas

Inner City Housing: Evolution and Historical Background, community, spatial Characteristics, housing transformation of core city, impact of transformation, Problems of inner cities, policies and programmes. Fringes / Peri-urban / Sub-urban Housing: Rural urban linkages, characteristics of fringe areas, development process, various modes of land Supply in fringe area, case study with special emphasis on housing. Arid / Coastal / Hilly Region Housing: Settlement and shelter characteristics, Materials and technology, design standards, climatic factors, danger of hazards, Settlement planning, development policies and programmes.

UNIT 2: Special Groups

Housing for Aged / Physically Challenged: Concept and definition of old age characteristics of aging population, profile and growth of elderly persons, classification of elderly population, problems of elderly planning and design considerations for elderly, case study with special reference to housing.

UNIT 3: Housing for Women, Children and Refugees

Importance of gender in housing, housing planning and 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. Concept of refugees, types of refugees, 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.

UNIT 4: Shelter less and Tribal Housing

Shelter less in the context of urban poor, psychological and social implications of poverty on homeless, homeless in metropolis, problems of homelessness, various interventions, night shelters, case studies; Socio cultural and economic profile, settlement characteristics, housing typology, housing schemes, polices and programmes, for tribal upliftment, case study area.

Learning Outcome

Students will able to understand the housing issues in special areas like inner city areas, fringe areas, industrial sectors and hilly areas etc.

Students will able to understand the challenges in planning and design considerations for special groups housing.

Students will able to understand housing situations and solutions for shelter less and tribal housing.

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Text book [TB]:

1. Development of Hill Areas, Dobha G.L, Concept Publishing
2. Environmental Problems of Coastal Areas in India, Sharma Vinod, Bookwell
3. Integrated Development of Hill Districts in India : Issues and Approaches, Gupta, R.C., SPACE

Reference books [RB]:

1. Special Economic Zones In India, P. K. Manoj, Serials Publications
2. Aerotropolis: The Way We'll Live Next, John Kasarda, Allen Lane
3. Environmental act in india, Ruma Chatterjee, Oxford University Press
4. CRZ Regulations, 2011, MoEF

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR756	Subject Title	Development Finance						
LTP	200	Credit	2	Subject Category	DE	Year	2 ND	Semester	IV

Course Objective:

The objective of this course is to study the development finance system and different hierarchy. Understanding finance system at different levels of planning.

UNIT 1: Overview of Development Finance

Approaches, concepts, components, process, credit rating.

UNIT 2: State Finance

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

UNIT 3: 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.

UNIT 4: 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.

Learning Outcome

Students will able to understand the

- concepts and different components of development finance system of India.
- Hierarchy of finance system on central, state and local level.
- Functionality and mechanism of financing system in urban planning.

Text book [TB]:

1. Constitution of India, D.D. Basu, S. Chand and Sons, New Delhi
2. Democracy, Development and Decentralisation – Continuing Debates, Taylor and Francis,
3. India: The Challenges of Urban Governance, O.P. Mathur, National Institute of Public Finance and Policy, New Delhi

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4. Local Governance in India – Niraja Gopal et al., Oxford University Press
5. 23. Local Government in India: Policy and Practice. 2009. Rashmi Sharma, Delhi: Salasar Imaging Systems.
6. Governance - problems, prospects and perspectives. 2009. R.S. Chhikara, [ed.]. Gurgaon: Hope India Publications.
7. Financing Cities. 2007. George E. Peterson and Procola Clarke Annez, [ed.]. New Delhi: Sage Publications.
8. Urban Governance and Management. 2006. P.S.N. Rao, [ed.]. New Delhi: Kanishka Publishers.
9. Funding Local Governance. 2005. Jo Beall, Great Britain: ITDG publishing.
10. Governance. 2004. Bibek Debroy, [ed.]. New Delhi: Academic Foundation.
11. Public Finance. 2003. H.L. Bhatia, New Delhi: Vikas Publishing House Pvt. Ltd.

Reference books [RB]:

1. New Forms of Urban Governance in India, Baud I.S.A. et al., Sage
2. People's Participation in Urban Governance, K.C. Sivaramkrishnan, CSS, New Delhi
3. Urban Governance and Management: Indian Initiative, P.S.N. Rao, Kanishka Publishers
4. Leadership and Team Building, Uday Kumar Halder, Oxford University Press
5. Developing Countries, Bahl Roy W. Et al., Oxford University Press
6. Public Finance: Policy Issues for India, Sudipto Mundle, Oxford University Press
7. New Issues in Panchayati Raj, D. Bandopadhyay et al., Concept Publishing
8. Fiscal Decentralisation and Governance – A Cross Country Analysis, De Mello, IMF Working Paper (WP.01/171, 2001)
9. Fiscal Decentralisation to Local Government in India, M.A. Oommen, Cambridge Scholars Publishers
10. Municipal Finance in India – An Assessment, P.K. Mohanty et al, Reserve Bank of India
11. Municipal Finance – A Handbook for Local Government Practitioners, World Bank
12. Federalism and Fiscal Transfers in India – C. Rangarajan et al., Oxford University Press
13. Costs and Challenges of Local Urban Services: Evidence from Indian Cities – O.P. Mathur et al., Oxford University Press
14. Fiscal Federalism in India – Vithal & Sastry, Oxford University Press
15. Urban Infrastructure: Finance and Management. 2012. Kath Wellman and Marcus Spiller, [ed.]. United Kingdom: Wiley Blackwell.
16. Local Government in India. 2011. Pardeep Sachdeva, Delhi: Pearson.
17. Urban Planning and Governance. 2010. A.K. Jain, New Delhi: Bookwell India.
18. Good Governance: Issues, Challenges and Prospects. 2009. Surya Narain Yadav, Indu Baghel. New Delhi: Global vision publishing house.

Course Structure & Syllabus of M.Plan (Urban & Regional Planning) Applicable for Batch: 2021-2023

Subject Code	AR757	Subject Title	Intelligent Transport System						
LTP	200	Credit	2	Subject Category	DE	Year	2 ND	Semester	IV

Course Objective:

The objective of this course is to understand applications, economics and implementation of technologies in ITS.

UNIT 1: Technology and Architecture

Definition, concepts, types of Intelligent Transport System (ITS); ITS technology, software, equipments, architecture.

UNIT 2: Application in Transport Infrastructure Management

Traffic management, emergency and incident management, public transport system, terminal and depot management system, parking infrastructure management, commercial vehicle management, highway surveillance, case studies.

UNIT 3: Economics of ITS

Costing of ITS, ITS benefits assessment, economic and financial analysis of ITS.

UNIT 4: Implementation

ITS implementation, case studies, institutional and organizational issues.

Learning Outcome

Students will able to understand the

- concepts and economic components of ITS.
- Different applications in transport infrastructure management
- Issues related to ITS implementation at institutional and organizational level.

Text book [TB]:

1. Transportation Engineering and Planning, C. S Papacostas, P. D Prevedouros PHI Learning
2. Transportation Engineering: An Introduction, C. Jotin Khisty, B. Kent Lall Phi Learning
3. Public Transportation Improvement, Semiat Idris, Lambert Academic Publishing
4. The Economics of Transport: A Theoretical and Applied Perspective, Jonathan Cowie, Routledge
5. Integrated Land Use and Transport Modelling, Author: Tomas De La Barra, Publisher: Cambridge University Press.

Reference books [RB]: