PL501	PLANNING HISTORY AND THEORY					
Pre- requisite	Co- requisite	L	Т	P	C	Remark
	NIL	2	1	0	3	
Objective	To study Evolution of Cities and His To study Theories of City Developm	•	Plannin	ıg.		
Unit-I	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-II 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-III 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-IV Theories of City Development

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-V Planning Theories

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.

Text Books and References: SL. Name of Authors Titles of the Book **Edition** Hall. P. Cities of tomorrow: an intellectual history of urban planning and 1 2001 design in the twentieth century, Birch, E.L. and One Hundred Years of City Planning's Enduring and Evolving 2009 Silver, C. Connections, Journal of the American Planning Association, Vol.75, Issue 2,pp.113-122. 3 Sandercock, L. Making the Invisible Visible: A Multicultural Planning History 1998 4 Brooks, M.P. Four critical junctures in the history of the urban planning 1988 profession: An exercise in hindsight, Journal of the American Planning Association, Vol. 54, Issue 2, 241-248. 5 McLoughlin, J. B. Urban and Regional Planning. A systems approach, 1969 A Reader in Planning Theory, 1973 6 Faludi, A. 1997 Healey, P. Collaborative Planning: Shaping Places in Fragmented Societies

PL502	PLANNING TECHNIQUES & QUANTITATIVE ANALYSIS					
Pre- requisite	Co- requisite	L	T	P	C	Remark
	NIL	2	1	0	3	
Objective	To study the Database for Physical Base Maps. To study the Methods of Population		•		•	f preparation of
Unit-I	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-II 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-III Demographic Methods

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.

Unit-IV 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.

Unit-V Case Study and Documentation

Visit to a Local Body / Development Authority and submit report with relevance to adoption of Planning Techniques by them.

Text B	ooks and References:		
S. No.	Name of Authors	Titles of the Book	Edition
1	Margaret Robert	A introduction to town planning techniques	1974
2	Lewis B. Keeble	Principles and practice of town planning	1967
3	Ian Braken	Urban Planning Methods	2007
4	Kruekeberg D. A.and Silvers A. A.	Urban Planning Analysis	1988

PL503	INFRASTRUCTURE AND TRANSPORT PLANNING					
Pre- requisite	Co- requisite	L	T	P	C	Remark
	NIL	2	1	0	3	
Objective	To study the Elements of Physical In To study the Basic Principles of Urba				•	
Unit-I	Role of Infrastructure in Developm	nent				

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-II 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-III 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.

Unit-IV	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;

Unit-V	Urban transport planning
U III t- v	Olban transport planing

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.

Text B	ooks and References:		
S. No.	Name of Authors	Titles of the Book	Edition
1	Mohinder Singh and L.R.	Crisis in road transport	1989
	Kadiyali		
2	L. R. Kadiyali	Traffic engineering and transportation planning	2007
3	Mukerjee S. and Chakraborty D. (Eds)	Environmental scenario in India	2012
4	Sameer Kochhar, Deepak B.	Infrastructure and Governance	2008
	Phatak,		
	H. Krishnamurthy, Gursharan		
	Dhanjal,		

PL504	HOUSING, REHABILITATION & RESETTLEMENT					
Pre- requisite	Co- requisite	L	Т	P	C	Remark
	NIL	2	1	0	3	
Objective	To introduce the Basic Definitions, Concepts and Socio-economic Din related to Housing. To provide a basic understanding of Housing at the Neighborhood and C and to appreciate the Housing Sector as an Integral Sector of Overa Planning System.		od and City level			
Unit-I	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, informal housing etc.

Unit-II Overview of Informal Housing

Emergence and growth of Informal Housing in third world cities and formal regulatory framework Diversity of housing needs of urban poor and informal housing options pavement dwelling, squatting, illegal land-subdivision, inner-city organic housing, and urban villages. Causes of growth and perpetuation and impacts of illegality

Unit-III Slums and Government Intervention

Process of slum formation, causes and consequences, approaches to tackle the challenge of slums, relocation, rehabilitation, in-situ upgradation, etc. Role of NGO's and CBO's in the improvement process; Dimensions of poverty and its manifestation in the housing sector, indicators, programmes specifically targeted towards slums and the urban poor, shelter less population.

Unit-IV Housing Environments

Slums and squatters, night shelters, public health issues related to housing, various theories of housing, concept of green housing, green rating of housing projects; basic services for housing neighborhoods. Approaches to neighborhood living in traditional and contemporary societies, elements of neighborhood structure.

Unit-V Planning and design criteria

Planning and design criteria for modern neighborhoods, 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 neighborhood planning

Cont.

Text Bo	ooks and References:		
S. No.	Name of Authors	Titles of the Book	Edition
1	Dwyer, D.J.	People and Housing in Third World Cities	1981
2	Beyer Glen H,	Housing: a factual analysis	1958
3	Abrams, Charles	Man's Struggle for Shelter in an Urbanizing World	1964
4	Payne, Geofrey	Urban Housing in the Third World	1977
5	Al Nichols, Jason Laros	Inside the Civano Project (Green Source Books): A Case Study of Large-Scale Sustainable Neighborhood Development (Mcgraw-Hill's Green source Series)	2009
6	Douglas Farr	Sustainable Urbanism: Urban Design With Nature	2007
7	Aromar Revi	Shelter in India – Sustainable Development Series	1990
8	International Institute for Energy Conservation	Eco housing Assessment criteria Version II	2009

PL505	PL505 ENVIRONMENTAL PLANNING					
Pre- requisite	Co- requisite	L	Т	P	С	Remark
	NIL	2	1	0	3	
Objective	To study Concepts of Ecology and I for various Ecosystems. To study Environmental Issues and I	•				esource Analysis
Unit-I	Concepts of Ecology, Ecosystem a	nd Env	ironme	ntal		

History of Environmental Planning, Development of habitat patterns, settlement structure and form in response to environmental challenges; Concepts of Ecology and Ecosystem, Urban Ecosystem.

Unit-II Approach of Environmental Design as Applicable to Built Environment

Criteria of Urban Environmental design issues-pedestrian-vehicular conflict, City Centre Environment, Housing areas, dereliction, environmental upgradation programmes; built environment aesthetics of ensemble of buildings, techniques of study of building condition, conservation aspects of built-up areas. Environmental approaches to design and planning of rural settlements, use of alternate technology in design of human settlements.

Unit-III Environmental Policy; Protection & Management

Policies and their implication in urban planning, international and national policies and related interventions; Protection techniques, overview of legal and legislative provisions for protection, case studies and best practices; Role of various authorities and institutions, practices at regional, city and local level.

Unit-IV Environmental Protection Techniques

Air pollution mitigation and abatement; water pollution mitigation and abatement Noise attenuation; EPA Guidelines; role of Government and Non-Government Organizations in Environmental Protection; best practices in Environmental Protection and Conservation; International Co-operation for Environmental Protection.

Unit-V	Case Study and Documentation	9
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Visit to Local Bodies / Development Authority and submit report on Environmental Design being practiced by them.

S. No.	Name of Authors	Titles of the Book	Edition
1	Catlin, R. A,	Land use Planning , Environmental Protection and Growth Management	1997
2	Campbell, G.S. and Norman, J.M.	An Introduction to Environmental Biophysics	1998
3	Randolph J.	Environmental Land Use Planning and Management	2003
4	Government of India	Government of India	2011

PL506	PLANNING STUDIO-I					
Pre- requisite	Co- requisite	L	T	P	C	Remark
	NIL	0	0	12	6	
Objective	To understand Development Issues. To appreciate Contextual location of Area in relation to City.					
Module-I Film Appreciation (Individual Assignment)						

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

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.

Module -II Literature 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).

Module-III Area Appreciation (Individual 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 (%) 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.
- 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.

Module-IV 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 three-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.

Module -V City 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.

Text Books and References:							
S. No.	Name of Authors	Titles of the Book	Edition				
1	Lynch, Kevin	Site Planning					
2	Smith, Carl, et. al.,	Residential Landscape Sustainability – A Checklist Tool	2008				
3	Ministry of Urban Development	Revised Tool Kit for Preparation of CDP	2009				

PL507	SOCIO-ECONOMIC PLANNING					
Pre- requisite	Co- requisite	L	T	P	С	Remark
	NIL	2	1	0	3	
Objective	To study Socio-cultural Profile of Indian Society in the context of Urban and Rural Settlements. To study the Economic Growth and Development of Urban and Rural Settlements.					
Unit-I	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, sex, gender, health safety, and marginalized groups; Displacement, resettlement and rehabilitation due to compulsory land acquisition

Unit-II 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 neighborhood communities; Social planning and policy, and community participation; Marginalization and concepts of inclusive planning, and gender concerns in planning.

Unit-III Settlement Policy

Settlement Policy: National Commission on Urbanization, Rural Habitat Policy and experiences from developing countries regarding settlement structure, growth and spatial distribution.

Unit-IV 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-V Development Economics and Lessons from Indian Experiences

This unit would focus on developing a critical reasoning and communication skills through study planning cases including planning permissions, court cases, and attending public meetings etc., application of concepts of previous unit through study of planning practice, documentation of cases.

Text Books and References: No. Name of Authors Titles of the Book Edition N. Javapalan Urban Sociology 2002 2 William G. Urban Sociology-images and Structures 2010 Flanagan Mani Monto, L.S. Ganesh & K. 2005 3 Sustainability and Human Settlements: Fundamental Issues, Modeling and Simulation Verghese Dr. D N Dwivedi Principles of Economics 2006 4 5 Karl E. Case Principles of Economics 2009 Jhingan, M The Economics of Development and Planning 1998

PL508	CITY AND METROPOLITAN PLANNING							
Pre- requisite	Co-requisite LTPCRemark							
	NIL	2	1	0	3			
Objective	To study City – Region Linkages and problems of Metro and Mega Cities. To study Urban Development Policies and Problems.							
Unit-I	Urban Growth and System of Citic	es						

Growth of cities scale, complexity and its impact on national development, cities as engines of growth, cities as ecosystems, resources in cities.

Unit-II City – Region Linkages

City, fringe and the periphery - physical and functional linkages, peri-urban development.

Unit-III Metro and Mega Cities: Problems and Issues

Growth trends and processes, characteristics, problems, concepts and concerns of urban sustainability, issues related to diversity and unintended growth, economic, social and environmental sustainability, quality of life, inclusivity and equity, climate change, transit-oriented development, participatory planning. Inner city – issues and problems, approach to development.

Unit-IV	Human Settlement Planning, Urban Development	
	Policies and Programmes	

Concepts, approaches, strategies and tools; Policies and programmes at various levels, impact on metro and mega city development.

Unit-V Case Study and Documentation

Visit to a City / Metropolitan Planning and Development Agency and submit report.

Text Bo	oks and References:		
S. No.	Name of Authors	Titles of the Book	Edition
1	ITPI	City and Metropolitan Planning and Design	
2	Ramachandran, R	Urbanization and Urban Systems in India	1998
3	Bawa, V. K.	Indian Metropolis: Urbanization, Planning and	1987
		Management	
4	MMRDA	Madras 2011: A New Perspective for	1991
		Metropolitan Management	
5	NCRPB	Regional Plan 2021	2005
6	DDA	Master Plan for Delhi 2021	2010
7	Misra, R.P. & Misra, K.	Million Cities of India Vol. 1&2	1998

PL509	ADVANCE INFRASTRUCTURE PLANNING						
Pre- requisite	Co- requisite	L	T	P	C	Remark	
	NIL	2	1	0	3		
Objective	The Role and Significance of Infrastructure in Habitat Planning and in inducing Peoples' Participation in the Planning Process. To understand the importance of different Sectors and their Mutual Interdependence.						
Unit-I	Water Supply and Sanitation						

Quantity and quality, source of supply, transmission and distribution, treatment methods, design guidelines.

Sanitation – concepts, disposal systems, low-cost sanitation options; engineering aspects of sewage disposal;

Wastewater – generation, disposal system Storm water drainage – systems

Unit-II Solid Waste Disposal and Management

Basic principles, generation, characteristics, collection, disposal, management

Unit-III Fire and Electrification, and Social Infrastructure

Planning for fire protection, services and space standards, location criteria; Planning for Education, health, civic, cultural infrastructure

Unit-IV Traffic and Transportation

Planning for infrastructure and facilities for transport.

Unit-V Case Study and Documentation

Visit to a Infrastructure Development Agency and submit report.

S. No.	Name of Authors	Titles of the Book	Edition
1	Gathe Donald E.; Billings, R. Bruce;	Managing urban water supply	2003
	Buras, Nathan,		
2	Ghosh, G.K.	Water of India	2000
3	Yadav, Satish	Water Problems and its Management,	2004
4	W'Mays Larry	Urban Water Supply Handbook	2002
5	Butter, David	Urban Drainage	2004
6	Nathanson, J.A.; John, P.E., Wiley &	Basic Env. Technology: Water Supply,	1986
	Sons,N.R. Brisbane	Waste Disposal & Pollution Control.	
7	Bandela, Tare, D.G.	N.N.; Municipal Management	
8	Holmes, J.R.	Manual on Municipal Solid Waste	1984
		Management, , The Expert Committee	
		GoI, MoUD, CPNEEO 2000 Managing	7
		Solid Waste in Developing Countries	

PL510	REMOTE SENSING & GIS APPLICATION							
Pre- requisite	Co- L T P C Remark requisite							
	NIL	2	1	0	3			
Objective	To study GIS Applications and principles of remote sensing. To study sources of demographic data and statistical applications							
Unit-I	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-II GIS Mapping

Coordinate system, Geo-referencing 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).

Unit-III GIS in Land use Survey

Digital image classification for land use land cover map preparation. Per pixel classification – statistical, artificial neural network and other machine learning approaches. Object based image classification. Concept of mixed pixel. Sub pixel classification – linear mixture modeling, fuzzy set-based classification, artificial neural network and other machine learning approaches.

Unit-IV Issues in urban and regional planning

Issues in urban and regional planning – objectives and planning processes, data requirements. Physical planning and statistical methods. Mapping of parcels and individual buildings, Utility of land use land cover in urban planning.

Unit-V 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.

Text B	ooks and References:		
S. No.	Name of Authors	Titles of the Book	Edition
1	GrovesR.M.FowlerF.J., CouperM.P., Lepkow ski J.M., SingerE., Tourangeau R.,	Survey Methodology	2009
2	Easa S., Chan Y.,(ed)	UrbanPlanningandDevelopme nt, Application of GIS	2000
3	John W. Creswel	Research Design	2003
4	GlatthornA.A,and Joyner R. L.	Writing the winning thesis	2005

PL511	PLANNING STUDIO - II					
Pre- requisite	Co- requisite	L	Т	P	C	Remark
	NIL	0	0	12	6	
Objective	To Assess, Collect and Analyze the Information Requirements for the Study. To understand the Characteristics of the City for Preparation of Sustainable Development Plan.					
Module-I	Geo-Informatics Laboratory Train	ning				

The laboratory training will be conducted in accordance with the studio exercise. Introduction to Geo-informatics, introduction to Remote Sensing – Aerial and Satellite; introduction to GIS, Spatial data and Attribute data; Satellite images as input to GIS; Collection and presentation of baseline information.

Module-II Development Plan

The studio exercise focuses on the planning, development and design aspect (in line with the other core and elective courses offered in the semester). The exercise pertains to large cities and emerging metropolitan cities and ranges from preparation of sustainable development plans to sector specific themes pertaining to tourism, SEZs, etc. The studio exercise enables students to develop an approach/ framework for the task; it is field based as a database is generated that is analyzed and the plan and strategies are formulated.

Initial study involves understanding of the exercise through theories, study of similar case studies, awareness of relevant norms and standards through extensive literature search. Students are required to prepare a comprehensive list of required data and identify probable sources before making a field visit to the case study town/city. Students are encouraged to translate learning from the core and elective subjects to the studio exercise. The introduction of GIS in the studio enables them to apply it in the studio exercise. Students are expected to analyze the data collected and come out with proposals and recommendations for planned development of the city. The entire exercise is also documented in the form of a technical report.

The second exercise is a short and intensive exercise of one-month duration. It pertains to topical issues i.e. property tax reforms, informal sector, development of railway land, etc. The study is based on primary surveys and students are expected to analyze the information and arrive at recommendations.

Text B	ooks and References:		
S. No.	Name of Authors	Titles of the Book	Edition
1	Dellinger, A.	Validity and the Review of Literature, Reviewing theSchools	2005
2	Hart, C.	Doing a Literature Review, Releasing the Social ScienceResearch Imagination	198
3	Taylor, G.	A Student's Writing Guide: HowtoPlanandWriteSuccessful Essays	2009
4	Colin Neville, C.Neville,	TheCompleteGuide to ReferencingandAvoidingPlagiarism	2007
5	Punch, Keith	AnIntroductiontoSocial Research:QuantitativeandQualitative Approaches	2005
6	Neuman, William	BasicsofSocialResearch:Qualitative andQuantitativeApproaches	2007
7	Bryman, Alan	Social Research Methods	2008
8	Finlay, B.	Statistical Methods for theSocial Sciences	2009

PL512	ELECTIVE-I (PUBLIC POLICY AND POLITICS)								
Pre- requisite	Co- requisite	L	Т	P	C	Remark			
	NIL 2 1 0 3								
Objective	one another and multiple linkTo discuss the nature and var	 To show that public policy, planning policy and politics are enfolded into one another and multiple links amongst them. To discuss the nature and various aspects of planning and public policies. To provides analyses of integration and coherence of planning policies. 							
Unit-I	Comprehending Policy and Politic	s							

Classical and modern notions of politics; Links between politics and planning; Meaning of public policy; Forms and components of public policies; Cycle of public policy formulation; and theories of public policies and policy analysis.

Unit-II Planning and Public Policies

Meaning of planning policy; Forms and components of planning policies; Sources and content of public planning policies; Joined-up government; and Policy implementation and evaluation.

Unit-III Integration and Coherence of Planning Policies

Reasons for linking urban and regional planning policies to public policies; Integration and coherence of planning policies; Context and integration of planning policies with relevant other public policies; and Methods of making public planning policies.

Unit-IV Nature of Planning Policies-I

Welfarist planning policies; Managerialism and urban entrepreneurialism; Neoliberal urbanism; Gentrification; Spatial dialectics of injustice

Unit-V Nature of Planning Policies-II

The Right to the city; and some case examples of current and classical Indian planning policies.

- 1. Cochrane, A. (2007) Understanding Urban Policy: A Critical Approach, Blackwell, Oxford.
- 2. Dikeç, M. (2007) Badlands of the Republic: Space, Politics and Urban Policy, Blackwell, Oxford.
- 3. Dunn, W.N. (2018) Public Policy Analysis: An Integrated Approach, Routledge, New York.
- 4. Harloe, M., Pickvance, C.G. and Urry, J. (1990) Place, Policy and Politics: Do Localities Matter? Unwin Hyman, London.
- 5. Jenkins, R., Kennedy, L. and Mukhopadhyay, P. (2014) Power, Policy and Protest: The Politics of India's Special Economic Zones, Oxford University Press, New Delhi.
- 6. Knoepfel, P., Larrue, C., Varone, F. and Hill, M. (2007) Public Policy Analysis, Policy Press, Bristol.
- 7. Mathur, K. (2014) Public Policy and Politics in India, Oxford University Press, New Delhi. Third Edition.

PL513	ELECTIVE-I (BIG DATA AND DATA ANALYTICS)							
Pre- requisite	Co-requisite LTPCRemark							
	NIL	2	1	0	3			
Objective		As technologies are getting embedded in the built environments, in this context, he major objective of this course is to understand the role and application of big						
Unit-I	Big data – An introduction							

Defining big data and what makes it 'big'; Emergence of data science and big data; Importance and utility of big data in planning; Characteristics of big data; Links between big data, urban and regional planning, development, management and policy making.

Unit-II Mapping the City

Different tools for making maps with big data; Understanding basic elements of maps; Map online programs and open spatial data and its uses.

Unit-III GIS Mapping

Geographic information systems software for mapping; and Identification of winners and losers in the big data system.

Unit-IV Data acquisition and analytics

Understanding open data platforms; Generators of big data; Handling large datasets, cloud database system; Cleaning data, SQL, introduction to R or other software for urban data analysis.

Unit-V Big Data and Smart Cities

Explore big data in the context of smart cities; Learning use of real-time and crowd-sourced data collection and use; Interactive data visualization in the context of smart cities and regions.

- 1. Jain, V.K. (2018) Big Data and Hadoop, Khanna Book Publishing Co., New Delhi.
- 2. Carta, S. (2019) Big Data, Code and the Discrete City, Shaping Public Realms, Routledge, London.
- 3. Desouza, K. and Smith, K. (2016) Big Data and Planning, PAS Report 585, American Planning Association, Washington, D.C.
- 4. Townsend, A.M. (2013) Smart Cities: Big Data, Civic Hackers, and the Quest for a New Utopia, W.W. Norton and Company, London.
- 5. Offenhuber, D. and Ratti, C. (eds.) (2014) Decoding the City: Urbanism in the Age of Big Data, Birkhauser Verlag AG.

PL514	ELECTIVE-II (WATER SECURITY AND PLANNING)							
Pre- requisite	Co- requisite	L	Т	P	C	Remark		
	NIL 2 1 0 3							
Objective	NIL 2 1 0 3 Water is the most important life sustaining resource as well as the global and Indian government's top most priority. The primary objective of this course is to teach about the global and Indian water security challenges. It is also our objective that the future professionals know how to effectively transcend these global life-threatening water security challenges.							
Unit-I	Definitions and Status of Water Se	curity						

Concepts and definitions of water security; Spatial variations of water availability in India; Water stock, water consumption, and demand for various water uses; Status of water security in India; Sustainability and water security; Water security challenges in India.

Unit-II Disasters and Vulnerabilities-I

Floods and draughts and their impact on water security; Forms of vulnerabilities; Climate change and its impact on water security;

Unit-III Disasters and Vulnerabilities-II

Probable mitigation measures and planning for reduction of impact on water security; Water bodies and water security.

Unit-IV Water Governance and Water Policies

Water governance; Policy interventions for water security in India; Role of water policies, missions and action plans for water security for rural communities and urban settlements; Initiatives for ensuring water security; Role of organizations and institutions working for water security in India.

Unit-V Water Security and Settlement Planning

Development plans and water resource planning; Integration of concepts of water security in urban and regional planning and other development plans; Water requirements and demand projections for ensuring water security for settlements.

- 1. Hoekstra A.Y. (2013) The Water Footprint of Modern Consumer Society, Routledge, London.
- 2. Sharp, L. (2017) Reconnecting People and Water, Public Engagement and Sustainable Water Management, Earthscan, London.
- 3. Asthana V. and Shukla A.C. (2014) Water Security in India: Hope, Despair, and the Challenges of Human Development, Bloomsbury Academic, London
- 4. IDSA (2011) Water Security for India: The External Dynamics, Institute for Defence Studies and Analyses, New Delhi.
- 5. Gupta K.R. (2008) Water Crisis in India, Atlantic Publishers and Distributors Private Limited, New Delhi.

PL515	ELECTIVE-II (UNIVERSALLY ACCESSIBLE BUILT ENVIRONMENTS)							
Pre- requisite	Co- requisite	L	Т	P	C	Remark		
	NIL	2	1	0	3			
Objective	NIL 2 1 0 3 This course majorly focuses on issues and problems faced by persons with disabilities on a day-to-day basis. The primary objective of this course is to sensitise students and provide them with basic understanding of government policies about universally accessible built environments. Another main objective is to equip students with skills so that they could critically examine built spaces from the perspective of universal accessibility and propose planning and design solutions for universal accessibility.							
Unit-I	Concepts and Definitions							

Meanings and definitions of accessibility and universal accessibility; Accessibility challenges for different groups and communities; Freedom and universal accessibility.

Unit-II Challenges for Universal Accessibility

Challenges of building accessible build environments and infrastructure in settlements; Accessibility audits for public spaces, buildings, infrastructures and facilities.

Unit-III Acts, Policies and Plans

Acts, rules and guidelines on universal accessibility; Universal accessibility standards; Harmonious guidelines; Persons with disabilities acts and policies in India.

Unit-IV Accessibility in Planning

Links between planning and universal accessibility; Development plans and universal accessibility.

Unit-V Government Initiatives

Understanding efforts of government in providing accessible build environments; Accessible India Campaign, other schemes and programmes of governments and other stakeholders.

- 1. Helen P., Jenny D., Tanja W., David S., Leonardo S., Andrew L., Christopher P. (2016) Universal Design 2016: Learning from the Past, Designing for the Future, IOS Press Ebooks.
- 2. Indian Building Congress (2012) Guidelines for Design of Universally Accessible Built Environment, Indian Building Congress, New Delhi.
- 3. Government of India (2016) Harmonized Guidelines and Space Standards for Barrier- Free Built Environment for persons with Disability and Elderly Persons, Ministry of Urban Development, New Delhi.
- 4. Hamraie A. (2017) Building Access: Universal Design and the Politics of Disability, University of Minnesota Press, Minneapolis, Minnesota.

PL517	URBAN & REGIONAL GOVERNANCE							
Pre- requisite	Co- requisite	L	T	P	C	Remark		
	NIL	2	0	0	0			
Objective	implementation. Therefore, the print Regional Governance is to introduce	Governance plays a crucial role in framing planning policies and their effective implementation. Therefore, the primary objective of the course on Urban and Regional Governance is to introduce to the students how cities and regions in India are governed with a particular focus on land the built environment.						
Unit-I	Evolution of Urban and Regional	Govern	nance					

Comprehending governance; History of governance of urban and regional after 1947; Organizations involved in planning, development and management of urban and rural areas; Present status of urban and regional governance in India.

Devolution of Local Government Unit-II

Need for decentralization and devolution of powers from state governments to local government; District Planning Committees and Metropolitan Planning Committees; Current position of implementation of 73rd and 74th amendment acts.

Unit-III **Coproduction: Role of the Third Sector-I**

Shift from government to governance; Context of governance for greater involvement of the private sector; Ideas of good governance; Public private partnerships.

Unit-IV Coproduction: Role of the Third Sector-II

Role of global players such as the World Bank, IMF, Asian Development Bank, the private sector, INGOs, NGOs, CBOs.

Unit-V **Land Administration and Management**

Models of land assembly in India - Bulk land acquisition, land reconstitution, etc.; Land administration and management; Understanding maps of land records; Methods of keeping land records in urban and rural areas.

- 1. Baud, I., and Wit, J. (2008) New Forms of Urban Governance in India: Shifts, Models, Networks and Contestations. New Delhi: Sage.
- Desai, R. (2012) Governing the Urban Poor: Riverfront Development, Slum Resettlement and the Politics of Inclusion in Ahmedabad, Economic and Political Weekly, Vol. 47, No. 2, pp. 49-56.
- 3. Ďiwakar, D. (2016) Resettlement of Urban Poor in Chennai, Tamilnadu: Concerns in R and R Policy and Urban Housing Programme, Journal of Land and Rural Studies, Vol. 4, No. 1, pp. 97-110.
 4. Freire, M. and Stren, R. (2001) The Challenges of Urban Government: Policies and Practices, World Bank,
- Washington, D.C.
- 5. Gandhi, S., and Pethe, A. (2017) Emerging Challenges of Metropolitan Governance in India. Economic and Political Weekly, Vol. 52, No. 27, pp. 55-65.
- Gupta A., and Sivaramakrishnan, K. (2010) The State in India after Liberalization, Routledge, New York.
- Jenkins, R., Kennedy, L., Mukhopadhyay, P., and Pradhan, K. (2015) Special Economic Zones in India: Interrogating the Nexus of Land, Development and Urbanization, Environment and Urbanization Asia, Vol. 6, No. 1, pp. 1-17.
- Pethe, A., and Lalvani, M. (2006) Towards Economic Empowerment of Urban Local Bodies in Maharashtra, Economic and Political Weekly of India, Vol. 41, No. 7, pp. 635-641
 9. Pethe, A., and Nallathiga, R. (2017) Legislative Impact on Land Markets in Cities: The Case of ULCRA in
- Mumbai and Its Repeal, Environment and Urbanization Asia, Vol. 8, No. 2, pp. 201-213.
- 10. Sivaramakrishnan, K. (2011) Re-visioning Indian Cities: The Urban Renewal Mission, Sage, Delhi.
- 1. Sivaramakrishnan, K. C., and Maiti, A. (2009) Metropolitan Governance in India, An Overview of Selected Cities, East West Center, Honolulu.

PL518	RISK, DISASTER MITIGATION AND MANAGEMENT						
Pre- requisite	Co- L T P C Remark requisite						
	NIL	2	0	0	2		
Objective	 To understand the basic concepturban and regional planning. To understand processes and norisk mitigation, and post disaster. To expose students to relevant of disaster risks. 	nechanis	sms of o	disaster n	nanager	ment, disaster	
Unit-I	Basic Concepts of Disaster Mana	gement	t				

Disaster: Definitions, concepts, types and perceptions; Recent initiatives at national and state level; Disaster management mechanisms at national, state and district levels;

Unit-II Disaster Management – Global Scenario

Disaster: Kyoto Framework of disaster mitigation and management; Paris agreements; Disaster management policy at the national and state levels; Disaster management statutes at national and state levels.

Unit-III Disaster Management Mechanisms

Select global practices; Disaster and development; Development plans and disaster management plans; Roles played in disaster management by INGOs, NGOs, CBOs and armed forces; and Community Based Disaster Preparedness.

Unit-IV Disaster Risk Mitigation

Natural Disasters: cyclones, floods, earthquakes, landslides etc.; Disaster as a physical phenomenon, causes and consequences of mitigation and management practices; Risks' mitigation strategies in development plans inclusive of industrial, chemical and biological disasters; Land use planning, building bye laws and disaster safe construction practices.

Unit-V Disaster Preparedness and Post Disaster Management

Forecasting and early warning systems for various types of disasters; Role of communication and information technologies in disaster management; Disaster education and awareness; Case studies on natural disasters; Climate change and its implications in disaster mitigation; post-disaster management including rehabilitation and reconstruction of disaster affected areas; Safe hill area development guidelines and coastal zone regulations for safe habitation.

- 1. Capolla, D.P. (2007) Introduction to International Disaster Management, Butterworth Heinemann, London.
- 2. Joshi, A.D. (2009) Text Book of Disaster Management, Lotus Publication of Pvt. Ltd., Mumbai.
- 3. Sharma, S.C. (2019) Disaster Management, Khanna Book Publishing Co., New Delhi
- 4. NDMA (2007) Disaster Management Guidelines, NDMA, Government of India, New Delhi.
- 5. Ministry of Home Affairs (2004) Model Amendment in Town and Country Planning Legislations, Regulation for Land Use Zoning and Building Byelaws for Structural Safety, Government of India, New Delhi.
- **6.** Ministry of Home Affairs (2006) National Policy on Disaster Management, Government of India, New Delhi.

PL519	DISSERTATION & PROFESSIONAL TRAINING							
Pre- requisite	Co-requisite L T P C Remark							
	NIL	2	2	4	6			
Objective	The purpose of dissertation is to introduce to students, the research methods and to develop competencies for critically examining topics of their interest and present them. This will be a preparatory stage for the terminal or thesis project.							
Unit-I	Conducting Literature Review							

Preliminary literature review for identification of research gaps; Selection of topic, thesis statement, developing the thesis; developing research questions; detail literature reviews to understand the current state of knowledge around a particular topic.

Unit-II Developing an Argument

What is an argument, argument structure and identification, validity and strength of arguments, common fallacies of reasoning, use and abuse of language in reasoning, principles of fair play in argumentation, respecting opposing positions, understanding different modes of persuasion; emotional, moral and rational.

Unit-III Report Writing-I

Report writing, Type; characteristics of writing technical reports. Format of Reports: Preface, acknowledgements, contents, indexing, key word indexing, introduction, body terminal section, appendices, references;

Unit-IV Report Writing-II

Writing style - introductory, developmental, transitional and concluding paragraphs, linguistic unity, coherence and cohesion, descriptive, narrative, expository and argumentative writing. Proofreading and editing.

Unit-V Developing a Research Design

Formulation of objectives, research methods relevant for individual topic, development of research methodology elaborating methods of primary data collection.

Text Books and References:

1. Machi, L.A. and McEvoy, B.T. (2012) The Literature Review, Six Steps to Success, Sage, New Delhi.

	PROFESSIONAL TRAINING
,	To gain hands on experience in a planning organization so that students become future ready after they obtained the postgraduate degree. The main objective of professional training is to expose the students to live planning and development project and working environment in a planning agency.

Contents

Each student shall undertake training in a planning or related office for two months. Students will undergo professional training in a department approved organization on a project for 2 months. This will be supervised training by a senior professional from the organization. Satisfactory completion of training will be mandatory for the award of a degree. Out of six credits, two credits will be awarded for successful completion of training as reflected in PL519.

Text Books and References:

- **1.** Locke, E.A. (2003) The Blackwell Handbook of Principles of Organizational Behavior, Wiley-Blackwell, London.
- 2. Saccoccia, S. (2016) Planning Practice, MIT Press, Massachusetts.

Outcomes

After undertaking professional training, the students would be able:

- To show capabilities of working on live planning and development projects.
- To demonstrate knowledge of work environments in different planning organizations.

PL520	PLANNING STUDIO - III							
Pre- requisite	Co- requisite	L	T	P	C	Remark		
	NIL	0	0	12	6			
Objective	•	To Assess, Collect and Analyze the Information Requirements for the Study. To understand management and infrastructural/ facility aspects for preparation of						
Module-I	Geo-Informatics Laboratory Train	ning						

The laboratory training will be conducted in accordance with the studio exercise. Introduction to Geo-informatics, introduction to Remote Sensing – Aerial and Satellite; introduction to GIS, Spatial data and Attribute data; Satellite images as input to GIS; Collection and presentation of baseline information.

Management and Governance Plans	
	Management and Governance Plans

The focus of the studio is on management and governance aspects (in line with the other core and elective courses offered in the semester).

The exercise pertains to metropolitan cities and mega cities and ranges from preparing management plans and projects related to various sectors pertaining to infrastructure, disaster risk, riverfront development etc.

Students are also required to identify and formulate projects, work out the appraisals and do the feasibility, viability and implementation mechanisms of the projects.

Students work on a case study town/city and have to visit the field for collection of data and interaction with city officials and stakeholders. Although planning continues to be an important aspect of the exercise, students are also exposed to project identification, formulation, and appraisal, financing mechanisms and institutional framework.

Students draw from the theoretical knowledge provided in the core and elective subjects related to management, finance and governance offered in the semester and translate them in their studio exercise.

The culmination of the exercise is in the form of group presentations and studio report.

Text B	ooks and References:		
S. No.	Name of Authors	Titles of the Book	Edition
1	Dellinger, A.	Validity and the Review of Literature, Reviewing theSchools	2005
2	Hart, C.	Doing a Literature Review, Releasing the Social ScienceResearch Imagination	198
3	Taylor, G.	A Student's Writing Guide: HowtoPlanandWriteSuccessful Essays	2009
4	Colin Neville, C.Neville,	TheCompleteGuide to ReferencingandAvoidingPlagiarism	2007
5	Punch, Keith	AnIntroductiontoSocial Research:QuantitativeandQualitative Approaches	2005
6	Neuman, William	BasicsofSocialResearch:Qualitative andQuantitativeApproaches	2007
7	Bryman, Alan	Social Research Methods	2008

PL521	ELECTIVE-III (REAL ESTATE DEVELOPMENT AND MANAGEMENT)						
Pre- requisite	Co- requisite	L	T	P	C	Remark	
	NIL	2	1	0	3		
Objective	To examine the fast-changing nature of the real estate scenario and land markets in India, particularly after the July 1991 economic reforms.						
Unit-I	Unit-I Developments of Land and Real Property						

Process of land development, market mechanism and land use pattern cost of development, source of finance, and financial calculation for real estate developer

Unit-II Real Property Markets-I

Heterogeneity and imperfections, valuation of real property - principles and practices; private ownership and social control of land; disposal of land; land development charges and betterment levy;

Unit-III Real Property Markets-II

Land use restrictions, compensation and requisition taxation of capital gain on land versus public ownerships, economic aspects of land policies at various levels of decision making.

Unit-IV Factors Influencing Locational Decisions

Analysis of location of specific uses like residential, industrial, commercial and institutional in the light of location theories in intra-regional and inter-regional context; Techniques of cost benefit analysis of urban development programme.

Unit-V Case Studies

Case studies of real estate development in public, private, partnership sectors; Real estate as facilitator of development; Development of real estate as a tool for controlling land and property prices; Transaction and renting of real estate, Lease deeds and sale deeds, sale documents, registration; Mortgage and pledging.

- 1. Mittal, S. (2018) The ABC of Real Estate in India: An Eye Opener Account of the Real Estate Industry in India, White Falcon Publishing, Chandigarh.
- 2. Searle, L.G. (2013) Conflict and Commensuration: Contested Market Making in India's Private Real Estate Development Sector, International Journal of Urban and Regional Research, Vol. 38, Issue 1, pp. 60-78.
- 3. Shatkin, G. (2013) Contesting the Indian City: Global Visions and the Politics of the Local, International Journal of Urban and Regional Research, Vol. 38, No. 1, pp. 1-13.

PL522	ELECTIVE-III (PARTICIPATORY AND INTEGRATED URBAN DEVELOPMENT)								
Pre- requisite	Co- requisite	L	Т	P	С	Remark			
	NIL	2	1	0	3				
Objective	The course intends to sensitize the students to the importance of participatory processes and integrated institutional arrangements for more effective, efficient and sustainable implementation.								
Unit-I	Understanding Public participatio	n							

Understanding participation, conditions for effective participation; idea of power and representation in participatory process, Arenas of participation; Brief introduction to theories on citizen and community participation such as Arnstein's ladder of citizen participation.

Unit-II Public Participation in India-I

Requirements for planning a participatory process; evolution of community participation in development projects; Pani Panchayats.

Unit-III Public Participation in India-II

Channels of public participation in plan making, plan implementation and governance in India; Legislative provisions; mandated and claimed spaces of participation;

Unit-IV Horizontal and vertical integration

Coordination in planning, understanding various kinds of public agencies involved in urban development and coordination for the purpose of plans projects and management in urban areas and regions; Current practices of cross-sectoral development, and case studies

Unit-V	Participatory and integrated urban development –	
	Case Studies	

Based on the conceptual understanding developed in the first two parts of the course, this section will develop an understanding of the idea of Participatory and Integrated Urban Development through case studies of multi-stakeholder projects.

- 1. Cornwall, A. (ed.) (2011) The Participatory Reader, Zed Books, London
- 2. Kochi Municipal Corporation and GIZ (2019) Multi-stakeholder Ente Kochi Initiative, Kochi Municipal Corporation and GIZ India, Kochi.
- 3. Kumar, A. and Prakash, P. (eds.) Public Participation in Planning in India, Cambridge Scholars Publishing, Newcastle
- 4. Pune Smart City Development Corporation Ltd. (2016) Smart City Development Plan, Pune Smart City Development Corporation Ltd., Pune.
- 5. UN Habitat (2018) Leading Change: Delivering the New Urban Agenda through Urban and Territorial Planning, UN Habitat, Nairobi.

PL523	PROJECT PLANNING AND MANAGEMENT								
Pre- requisite	Co- requisite	L	Т	P	C	Remark			
	NIL	2	1	0	3				
Objective	To acquire the knowledge and skills of Project Management based on the Project Management Body of Knowledge (PMBOK).								
	To indicate the importance of bot successful management of a project		o-cult	ural an	d tec	hnical issues in the			
	To apply modern project management techniques and tools within a professional area of expertise.								
Unit-I	Project planning								

Introduction to Projects; Nature of planning projects; Project Life Cycle; Identification of projects

Unit-II Project Formulation and Appraisal-I

Relationship between projects and planning issues including sectoral policy at: Local, State and National levels Project appraisal: Market analysis – Macro environment survey, survey methods, market characterization, demand forecasting; Technical Analysis – Magnitude, processes, materials, equipment, factors of production availability, implementation schedule; suitability of the plans, layout and design, location of the project.

Unit-III Project Formulation and Appraisal-II

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

Unit-IV Project Management and Implementation, and Project Evaluation and Monitoring

Project characteristics - pitfalls in management of a project; Techniques of management; Planning milestones - responsibility charts and principle responsibility, principles of activity planning; Project Implementation – methods, hurdles, facilitative factors; Project culture: line management, steering committee, role of project manager; Project Control: cost and time, quality - ISI standards and its application to Indian context; Introduction to Project Management Software (Ms Projects) and its usage. Types of evaluation - concurrent, ex-ante and ex-post. Methods of evaluation, techniques of evaluation, end results, Presentation of evaluation findings, Techniques of Monitoring of Development Works.

Unit-V Regulatory Frameworks Governing Projects

National Rehabilitation and Resettlement Policy (2007) - Social Impact mitigation; National Environmental Policy (2006) – Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP).

Reference & Books:

- 1. A Guide to the Project Management Body of Knowledge: PMBOK® Guide (Sixth Edition)
- 2. Project Management: A Systems Approach to Planning, Scheduling, and Controlling
- 3. Project Planning and Scheduling By Gregory T. Haugan
- 4. Project Management By R.B. Khanna

PL524	INTRODUCTION TO PHILOSOPHY								
Pre- requisite	Co- requisite	L	Т	P	C	Remark			
	NIL	2	0	0	2				
Objective	Major concern of philosophy is the slive. The value of many of our key ways we make sense of ourselves at matters or acting decently is a minim	concep nd the	ots is o world	often hi I for gra	dden 1 inted.	from us. We take the We forget why truth			
Unit-I	Our Place in the World								

Is there a real world, or is everything a figment of our imagination? Do we have free will, or do our brains simply respond mechanically to stimuli? What, if anything, distinguishes right from wrong? Philosophers relentlessly pursue the fundamental questions of life, and their techniques apply to problems in any discipline or endeavors. They establish standards of evidence, provide rational methods of resolving conflicts, and create techniques for evaluating ideas and arguments.

Unit-II Logic and Ethics

This is course is a survey of several major areas of Indian and Western analytic philosophy: metaphysics and epistemology, ethics, philosophy of mind, philosophy of language, philosophy of religion, and philosophy of science.

Unit-III Knowledge Production and Use-I

Students explore such concepts as the nature of the world and how we have access to knowledge of the world; moral behavior and the nature of good and evil; the relationship between minds and bodies

Unit-IV Knowledge Production and Use-II

The relationship between our thoughts and the external world; and how we should employ logical analysis and empirical observations to evaluate arguments

Unit-V Study of Great Thinkers

For each topic, students consider positions of historical thinkers such as Plato, Descartes, and Hume, as well as those of contemporary philosophers such as M.K. Gandhi, B.R. Ambedkar, Amartya Sen, John Rawls and Hilary Putnam. Students reflect upon philosophical issues through debates, discussions, and formal critical essays in order to develop the analytical skills necessary for effectively evaluating arguments and thinking independently.

Reference & Books:

- 1. Borchet, D.M. (ed.) (2006) Encyclopaedia of Philosophy, Macmillan, Detroit.
- 2. Honderish, T. (ed.) (2005) The Oxford Companion to Philosophy, Oxford University Press, New York.
- 3. Perrett, R.W. (2016) An Introduction to Indian Philosophy, Cambridge University Press, Cambridge. Fourth Edition.

PL525	PLANNING LEGISLATION								
Pre- requisite	Co- Requisite	L	Т	P	C	Remark			
	NIL	2	1	0	3				
Objective		The primary objective of this course is to expose the students to urban and regional planning statutes as planning statutes foundationally impact planning							
Unit-I	Concept of Law								

Sources of law (custom, legislation and precedent); meaning of the term of law, legislation, ordinance, bill, act, regulations and bye-laws.

Unit-II Indian Constitution

Significance of law and its relationship to urban planning; benefits of statutory backing for planning schemes. Concepts and contents of Indian Constitution; Rights and their implication on planning; Fundamental provisions regarding property rights;

Unit-III Indian Legislation in Planning

Evolution of planning legislation and overview of legal tools connected with urban planning and development; model town planning laws.

Unit-IV Statutory Framework for Planning and Development Law

Evolution of town planning legislation, town planning laws, town planning as a state subject, 73rd and 74th amendment and its implications for planning law, current amendments in planning and development laws.

Unit-V	Planning law and its interface with other laws	
	affecting development	

Current laws related to environment, heritage, housing, real estate, property law and their interaction with planning law; PPP and contract laws; Any other Acts relevant at a particular time, for example, special investment region acts model community participation law.

- 1. Lakshimikanth, M. (2007) Indian Polity, Tata McGraw Hill, India
- 2. Bhattacharya, M. (2001) New Horizons of Public Administration, Jawahar Publishers and Distributors, New Delhi.
- 3. Government of India (2014) URDPFI Guidelines, Ministry of Housing and Urban Affairs, New Delhi.
- 4. Needham, B. (2006) Planning, Law and Economics: An investigation in the rules we make for using land, Routledge, London.
- **5.** McAuslan, P. (2019) Bringing the Law Back In: Essays in Land, Law and Development, Routledge, London.

PL526	PLANNING PRACTICE					
Pre- requisite	Co- requisite	L	Т	P	C	Remark
	NIL	2	1	0	3	
Objective	The main objective of this course is planning practice in the Indian of responsibility of planning profession planners. Students will also get family practice.	ontext ionals	and dand ind	evelop culcate	an u	nderstanding of al behaviour in
Unit-I	Nature of Planning Practice-I					

Planning as a profession and Role of a Planner, Definition of profession, planning as a profession, role of planner in the society, different roles of planner in practice; Nature of planning practice in general and in Indian context, global context and planning practice.

Unit-II Nature of Planning Practice-II

Legal framework for planning in India, planning and development organizations, current planning practices, study of selected projects.

Unit-III Ethical Planning Practice and Planning Engagement

Human values and moral reasoning, Planning practice and ethical dilemmas, resolution of ethical dilemmas, code of professional conduct, Concept of reflective and deliberative practice, Study of decision making, role of different interest groups, deliberation and negotiation large planning project or policy modification requiring approvals.

Unit-IV Planning Practice Cases

This unit would focus on developing a critical reasoning and communication skills through study planning cases including planning permissions, court cases, and attending public meetings etc., application of concepts of previous unit through study of planning practice, documentation of cases.

Unit-V Professional Engagement and Office Administration

Tenders, Contracts, Formulation of Project Proposals., Professional fees for different types of planning practice, setting up of planning firms, official correspondence, office management practices.

- 1. Barrett, C.D. (2001) Everyday Ethics for Practicing Planners, American Institute of Certified Planners, Chicago.
- 2. Kulshreshtha, S.K. (2012) Urban and Regional Planning in India: A Handbook for Professional Practice, Sage, New Delhi.
- 3. Saccoccia, S. (2016) Planning Practice, MIT Press, Massachusetts.
- 4. Thomas, H. and Healey, P. (1991) Dilemmas of Planning Practice: ethics, legitimacy, and the validation of knowledge, Aldershot, Hants.

PL527	DEVELOPMENT FINANCE					
Pre- requisite	Co- requisite	L	Т	P	C	Remark
	NIL	2	1	0	3	
Objective	Development plans and policies development projects. Funding of the of plans and policies. It is in this con of development finance, revenue, an develop a logical reasoning ability financing for urban infrastructure.	ese pro text th d mur	ojects is nat this nicipal f	critical course finance.	for the will into	implementation roduce concepts ourse intends to
Unit-I	Overview of Development Finance	;				

Understanding development finance: approaches, concepts, credit ratings; Role of municipalities and panchayats, development authorities, infrastructure and industrial development corporations, special economic zones and special purpose vehicles.

Unit-II State and Municipal Finance

Central Finance Commission and state finance commissions: constitution, powers and functions; consolidated fund of central and state; Financing municipalities and panchayats and financial categorization of sources of revenue; Reforms in municipal and panchayat finances, rationalisation of user charges, and streamlining of tax administration.

Unit-III Public Private Partnership (PPP) -I

Partnerships and alliances: concepts, need, preconditions for partnerships; Advantages of collaboration; Methods of promoting public private partnerships; Policies, statutes, regulations and administrative procedures for forging partnerships.

Unit-IV Public Private Partnership (PPP) -II

Role of government as partner, regulator and enforcer of laws; Principles of PPP: contractual framework, selection of service provider, payment mechanism, monitoring and evaluation, risk and revenue sharing; and Models contract agreement.

Unit-V	Innovative Methods for Financing Urban	
	Development	

Monetary Exaction: betterment levy, impact fees, external development charges and vacant land development tax; Land exactions: Transfer of development rights, town planning schemes, monetisation of underutilised public assets; Valorisation charges; Debt financing, partnership financing, financing through intermediaries, Municipal bonds, and pooled financing; Funding of development plan proposals and projects.

- 1. Bell, C. (2003) Development Policy as Public Finance, Oxford University Press, Oxford.
- 2. Fisher, R.C. (2018) State and Local Public Finance, Routledge, New York.
- 3. Kaushik, B. (2003) Analytical Development Economics: The Less Developed Economy Revisited, MIT Press, Cambridge, MA.
- 4. Mohanty, P.K. (2016) Financing Cities in India: Municipal Reforms, Fiscal Accountability and Urban Infrastructure, Sage, New Delhi.

PL528	THESIS							
Pre- requisite	Co- requisite	L	T	P	C	Remark		
	NIL	0	0	12	6			
Objective	The primary purpose of a thesis is to independently undertake a piece of research involving a deeper study of theories and frameworks, develop elegant research questions and connect with empirical evidences for creating new knowledge							
Course Content								

The purpose of a post-graduate thesis is to take forward the literature review involving a deep study of theories and frameworks and develop elegant research questions. It is expected that a post-graduate student is clearly able to explain how a piece of research adds new knowledge to the existing body of knowledge in a field and show its practical significance to the profession of planning. Without a clearly defined purpose and strong theoretical grounding, the thesis is fundamentally flawed.

- 1. Booth, W.C., Colomb, G., Williams, J.M., Fitzgerald, W. (2016) The Craft of Research, University of Chicago Press, Chicago.
- 2. Eco, U. (2015) How to Write a Thesis, MIT Press, Massachusetts.
- 3. Oliver, P. (2008) Writing your Thesis, Sage, New Delhi.

PL529	PL529 ELECTIVE-IV (URBAN AND REGIONAL PLANNING IN INDIA)									
Pre- requisite	Co- requisite	L	T	P	C	Remark				
	NIL	2	1	0	3					
Objective	By providing an overview of spatial planning India after 1947, the major concern of this course is to acquaint students with the nature of planning by highlighting its chief features. This course is designed as a generic course because it is aimed at students who may or may not be spatial planners.									
Unit-I	What is Planning and who are the	Planne	ers							

Various meanings of the term planning, distinction between land use planning and spatial planning; Goals and objectives of planning, orthodoxies of planning; Planning at various spatial scales; Planning challenges; Planners and their different roles.

Unit-II History of Planning before 1991

Planning in the central Five-Year Plans; Planning guidelines: Urban Plans Formulation and Implementation (URDPFI) Guidelines 1996; Story of master plan preparation and their implementation or lack of it; Planning institution building prior to 1990s; Programmes for planning like IDSMT, etc.

Unit-III Current Nature of Planning-I

Mission mode planning versus Plan based planning, JNNURM, SEZs, SCM; Planning in a globalized and networked India.

Unit-IV Current Nature of Planning-II

Planning Guidelines: Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines- 2015, Shyama Prasad Mukherji Rurban Mission, 2016; Sustainable Development goals and their relationship with spatial planning.

Unit-V Plans and Policies

Types, substance and dimensions of various kinds of development plans; Rethinking about development plans; Do we really need development plans; Planning policies versus economic policies; Politics and spatial planning; Spatial plans for rural settlements; Integration of spatial and economic plans.

- 1. King, A. (1976) Colonial Urban Development: Culture, Social Power, and Environment, Routledge and Kegan Paul, New York.
- 2. Kumar, A., Sanjeev, V., and Prakash, P. (2020) City Planning in India, 1947-2017, Routledge, New York.

PL530	ELECTIVE-IV (SUSTAINABLE DEVELOPMENT)							
Pre- requisite	Co- requisite	L	Т	P	C	Remark		
	NIL	2	1	0	3			
Objective	To know the sustainable development as a pattern of economic growth in which resource use aims to meet human needs while preserving the environment. To know the sustainable enterprise and innovative sustainable development policy To know the global development and environmental challenges.							
Unit-I	Overview of Sustainable Developm	ient						

Sustainable Development: Basic Concepts- Definition and Criteria- challenges of sustainability perspectives of sustainable development- stakeholders of sustainable development- issues in sustainable development policies.

Unit-II Social Sustainability

Sustainable Development and social exclusion and impact among socially excluded and marginalized sections: Dalits, Adivasis, Religious Minorities, Women, Transgender, Differently Abled, HIV-Aids victims, Migrants and other marginalized groups.

Unit-III Strategies for Sustainable Development

Strategies for sustainable development- Public-Private Partnership- social Action- community based development and maintenance- Goals of sustainable development-Institutions for sustainable development.

Unit-IV Liberalization and Development

Process of Sustainable Development in contemporary world: Developed, Developing and Third world countries, its impacts on sector wise, interface between Liberalization, Privatization and Globalization, advantages and challenges of Globalization in India.

Unit-V Social Welfare Planning for Sustainability

Social Justice: Debates on Social Justice, Thinkers of Social justice: Gandhi, Nehru, Ambedkar, Periyar, Phule and Marxist Perspectives of social justice. Components of Social Justice: Constitutional Rights Fundamental Rights and Duties, Directive Principles of State Policy, Human Rights, Gender Justice.

- 1. Jagdish Bhagwati, In Defense of Globalization, The 2005 Angelo Costa Lecture, Rome.
- 2. Deepak Nayyar, Liberalization and Development, Oxford University Press, Delhi, 2008.
- 3. Joseph E. Stiglitz, Globalization and Its Discontents, WW Norton and Company 2002, New York.
- 4. "Discrimination and Justice: Beyond Affirmative Action", Economic and Political Weekly, Volume XLVI, Number 42, 15 October 2011, pp.52-59.
- 5. "The Millennium Development Goals Beyond 2015: Old Frameworks and New Constructs",

- Journal of Human Development and Capabilities, Volume 14, Issue 3, August 2013.
- 6. Choudry, Paul. Social Welfare Administration, Atma Ram & Sons, Delhi, 1979.
- 7. Dubey, S.N. Administration of Social Welfare Programs in India, Somaiya Publication, Bombay. Bose, A.B. Social Welfare Planning in India, U.N. Publication, Bangkok.
- 8. Gangrade, K.D. Social Legislation in India, Vol. I & II. Ministry of Urban Development (2006) National Urban Information System, Ministry of Urban Development, New Delhi.
- 9. Weng, Q. (2010) Remote Sensing and GIS Integration: Theories, Methods, and Applications, McGraw Hill, New York.

PL531	INDIAN CONSTITUTION					
Pre- requisite	Co- requisite	L	T	P	C	Remark
	NIL	2	0	0	0	
Objective	To make students aware about the Indian Constitution.					
Unit-I	The Constitution - Introduction					

The History of the Making of the Indian Constitution

- Preamble and the Basic Structure, and its interpretation
- Fundamental Rights and Duties and their interpretation
- State Policy Principles

Unit-II Union Government

- Structure of the Indian Union
- President Role and Power
- Prime Minister and Council of Ministers
- Lok Sabha and Rajya Sabha

Unit-III State Government

- Governor Role and Power
- Chief Minister and Council of Ministers
- State Secretariat.

Unit-IV Local Administration

- District Administration
- Municipal Corporation
- Zila Panchayat

Unit-V Election Commission

- Role and Functioning
- Chief Election Commissioner
- State Election Commission

Suggested Software/Learning Websites:

- 1. https://www.constitution.org/cons/india/const.html
- 2. http://www.legislative.gov.in/constitution-of-india
- 3. https://www.sci.gov.in/constitution
- 4. https://www.toppr.com/guides/civics/the-indian-constitution/the-constitution-of-india/