

Second Year: Third semester									
Subject Code	Subject	Teaching Hours			Maximum Marks			Credits	ESE Duration in Hrs
		L	S/T	Total	ESE		Total		
BPLN0301	Planning Studio - III (neighbourhood and site planning)	2	9	11	-	VV	100	4	-
BPLN0302	Planning Theory - I	3	1	4	WR	-	100	1.5	3
BPLN0303	Settlement Geography	3	0	3	WR	-	100	1.5	3
BPLN0304	Techniques of Planning -II	2	1	3	WR	-	100	1.5	3
BPLN0305	Computer Aided Drawing applications in Planning	1	2	3	-	VV	100	1.0	3
BPLN0306	Demography and Urbanization	3	0	3	WR	-	100	1.5	3
BPLN0307	Traffic and Transportation Planning - I	3	1	4	WR	-	100	1.5	3
	Total	17	14	31				12.5	

Second Year: Fourth semester									
Subject Code	Subject	Teaching Hours			Maximum Marks			Credits	ESE Duration in Hrs
		L	S/T	Total	ESE		Total		
BPLN0401	Planning Studio- IV (transportation Planning)	2	9	11	-	VV	100	4	-
BPLN0402	Planning Theory - II	4	0	4	WR	-	100	1.5	3
BPLN0403	Planning Practice - I	3	0	3	WR	-	100	1.5	3
BPLN0404	Traffic and Transportation Planning II	3	0	3	WR	-	100	1.5	3
BPLN0405	Ecology, Environment and Resource Development	3	0	3	WR	-	100	1	3
BPLN0406	Housing and Community Planning	3	1	4	WR	VV	100	2	3
BPLN0407	Settlement Sociology	3	0	3	WR	-	100	1	3
	Total	21	10	31				12.5	

ESE- END SEMESTER EXAMINATION

VV- VIVA- VOCE

WR-WRITTEN EXAM

L - LECTURES

S/T- STUDIO/TUTORIAL

SECOND YEAR: THIRD SEMESTER

BPLN-0301: Planning Studio - III (Neighbourhood and Site Planning)

Unit 1: Designing and Planning

Design and preparation of plan, sections and elevation of low rise and high rise apartments taking into account the building byelaws and zoning regulations; Preparation of presentation drawings;

Unit 2: Planning Working Drawings

Introduction to the working drawings; Preparation of plans, sections, elevations and important details of an apartment unit

Unit 3: Site Analysis

Site analysis, development standards and preparation of the design brief; various considerations for site layout, conceptual approach to site planning;

Unit 4: Layouts

Preparation of preliminary layout and area analysis; Final layout showing the circulation and basic infrastructure;

Unit 5: Costing

Rough costing of the scheme, preparation of the model to an appropriate scale

BPLN-0302: Planning Theory - I

Unit 1: Defining Planning Theory

Definitions of theory in general; Definitions of planning theory including theory of planning, theory in planning and theory about planning; Definition of paradigm and its various stages of development by Kuhn; Significance of planning theory; Espoused theories and theories in use

Unit 2: Participation and Planning

Public interest and its forms; History and significance of public participation; Methods of public participation; Impediments to public participation and conditions for effective public participation; Public participation and empowerment; Participation, policy formulation and implementation

Unit 3: Sustainability, Rationality and Globalization

Sustainability and rationality in planning; Components of sustainable urban and regional development; Globalization, internationalization, modernism and postmodernism debate; Pragmatism in planning; Regime theory and urban politics

Unit 4: Theories of City Development

Compact city approach: concept, advantages and limitations; Forms of cities in developing world, Forms of cities in the developed world; Forms of cities in the former and present socialist countries

Unit 5: Planning, Implementation and Evaluation

Need for evaluation; Inseparability of planning and evaluation; Planning theories and evaluation; Methods of evaluating development plans; Theories of implementation of planning policies and development plans

BPLN-0303: Settlement Geography

Unit: 1 Introduction

Need for study of settlement geography; definition of settlement; ranking of towns; site and situation patterns; settlement morphology.

Unit: 2 Spatial Distribution of Settlements

Settlement in regional; context; spatial models of location, size and spacing of settlements; Central Place Theory; Characteristic of rural-urban fringe; rural-urban continuum; inter-urban inequalities; Interaction among settlements; Gravity model, classification of settlements.

Unit: 3 Urban Land Use Studies

Classification of land use in urban area; analysis of location and structure and models of growth patterns of CBD, industrial areas and residential areas; intra - urban inequalities

Unit: 4 Image of the City

Typology of urban perception, impact of socio-economic status of people on the image of a city; components forming the image of a city; land marks, edges etc.

Unit: 5 Regions

Types of regions, delineation of regions, city region, structure of city region, area of influence and dominance, shadow regions Trickle down effect and Trickle down effects, rural-urban fringe, its structure and growth.

BPLN-0304: Techniques of Planning - II

Unit: 1: Methods of Analysis

Methods of analysis of Socio-Economic and Physical data; Use of techniques of Location Quotient, Coefficient of Localization; Locational attributes of activity and population; Techniques for understanding structure of urban areas, land values and density patterns;

Unit 2: Spatial Standards

Formulation of spatial standards for residential, industrial, commercial and recreational areas, space standards for facility areas, utilities and networks; Population, Distance criteria; Performance standards; Case studies.

Unit 3: Regional Surveys

Concept and need for Regional Planning, Region, Fact or Fallacy; Formal, Functional, Planning Regions; Regional delineation techniques, Factor analysis, Cluster analysis; Row analysis; Case studies in regional delineation.

Unit 4: Plan Preparation Techniques

Setting of Goals and Objectives; Methodologies for preparation of urban regional development plans, master plans, structure plan and strategy plan techniques; plan implementation techniques; public participation and plan implementation; techniques of urban renewal and central area re-development; Contents of a Master Plan, Regional Plan, etc.

Unit: 5 Introduction to Advanced Techniques

Thresholds analysis, retail location and industrial location analysis; intervening opportunity models; Linear programming; Simulation, Gravity Models; Applications in planning.

BPLN-0305: Computer Aided Design (CAD) in Planning

Unit 1: Drafting in CAD

Need for automated design and drafting; Tools for automated designs and drafting; Elements of spatial data in CAD - Arcs, lines, rectangles, poly-lines, points, circles, donuts, layers, grids, snaps and object snaps, etc.

Unit 2: Editing and Controlling Display in CAD

Move, scale, copy, offset, change, trim, extend, mirror, divide, measure, array, break, hatch, block, zoom, regen, view, pan, fonts, etc.

Unit 3: Case Studies of Lay-out Plans

Paper maps, digital layout maps, on screen digitization; 2D and 3D conversion, perspective view, walk through of layout.

Unit 4: Case Study of a Regional Plan

Base map evaluation, scanning the maps, digitization, scale conversion, symbolization, layer control, plotting.

Unit 5: Limitations

Limitations of Computer Aided Design and Drafting in Planning; Non-linking of spatial and attribute data; Need for GIS packages for handling spatial and attribute data.

BPLN-0306: Demography and Urbanization

Unit 1: Study of Population

Demographic variables: fertility, mortality, migration; evolution of population study, contribution of Malthus; mortality-trends, biological and social factors and mortality-gender, race, social structure, life style, social status, occupation etc; measures of mortality-crude and age-specific death rates; infant mortality, adjusted or standardized death rates; neonatal mortality rate; fertility-fertility trends, fertility and social and biological behaviour; differential fertility, ethnic groups, socio-economical group mobility, location etc.; measures of fertility, crude birth rate; Age-specific fertility rate; total fertility rate, net reproduction rate; migration-causes and consequences of population movement; reasons and types of migration trends; methods of measuring volumes of migration; direct and indirect measures; effect of migration of composition of population.

Unit 2: Study of Demography.

Source of demographic data; senses of India in conducting censuses and its role as a data warehouse population structure and composition, age sex composition, sex ratio, dependency ratio, child woman ratio; measures of age-sex structure, age-sex pyramid, population composition; marital status, cast region, literacy level, etc; life table techniques; techniques in preparing life table, abridged life table; population estimation, projection and population forecasting; basic cohorts survival model, inter regional cohorts survival model.

Unit 3: Urbanization in India

A brief history of urbanization in India; Mughal and British influences of India cities; post-independence urbanization; urbanization process as influenced by socio-cultural, political, economic and administrative factors; definition of urban centres, concepts of rural-urban continuum and dichotomy; census definition of urban places town, cities, town groups, urban agglomeration, standard urban area metropolis, megalopolis etc. functional classification of urban places.

Unit 4: Settlement Systems and Role of Urban Area

Settlement system, senses classification of settlements, primate city, rank-size rule, central place concept, concepts of complementary area, central goods and services, range, threshold etc; city-region relationship; structure of city regions, area of influence, dominance; rural-urban fringes; its structure, stages of growth, its role in urban growth; urbanization, industrialization and urban development; push and pull factors; migration trends and impacts on urban and rural development

Unit 5: Policies and Strategies for Directing Urbanization Trends in India

Over view of world urbanization, National Urbanization policy, basic issues in urbanization policy; role of national and state level policies; five year plans, latest attempts at urbanization policy formulation in the country; salient features of the report of the national commission of urbanization

BPLN-0307: Traffic and Transportation Planning-I

Unit 1: Transport Development

Economic, political and social significance and transport development; Characteristics and role of various forms of transport, road, railways, waterways and airways; Transport policies and programmes in India before and after independence; Transport co-ordination

Unit 2: Road Development

Historical perspective of road development in India; Scope and content of Nagpur, Mumbai and Lucknow road development plans; Current trends in road development; accessibility and priority index in traffic network planning

Unit 3: Geometric Design

Highway classification, design control and criteria, sight distances and control of access; At-grade and grade separated intersections.

Unit 4: Traffic Surveys

Volume count, Origin-Destination, Speed and delay, Parking and accidents surveys their need, design of proforma, methods of conducting surveys, analysis and interpretation.

Unit 5: Highway Capacity

Early studies, concept of PCU and level of service; Capacity of uninterrupted flow conditions, factors affecting capacity and level of service; Capacity of rural and urban roads and capacity at intersections.

SECOND YEAR: FOURTH SEMESTER

BPLN-0401: Planning Studio - IV (Transportation Aspects)

Unit 1: Classification of Roads

Understanding of functional and geometric classifications of urban and rural roads and their cross-sectional elements

Unit 2: Types of Transport Surveys

Methods, surveys, analysis, presentation of data and also to prepare reports relating to different types of transport surveys

Unit 3: Road Geometries and Surveys

Road geometries and road components, traffic volume, origin destination, spot speed, speed and delay, parking and pedestrian;

Unit 4: Road Layouts

Design and preparation of layout for road intersections, rotaries and signalized intersections

Unit 5: Area Circulation Plan

Preparation of an area circulation plan by studying the existing land use, existing circulation pattern, geometric design, level of services for a small area through networks improvement and low cost traffic management measures

BPLN-0402: Planning Theory - II

Unit 1: Scientific Rationalism and Planning

Defining instrumental rationality; Systems view of planning with a focus on contributions of J.B. McLoughlin and others; Chief characteristics of Comprehensive Rational Planning Model and implications for planning practice; Systemic change

Unit 2: Advocacy Planning, Pluralism and Equity Planning

Meaning, historical background and purposes of Advocacy Planning Model; Main features of Advocacy Planning Model; Relevance for planning practice; Equity and its various definitions; Major components of the Equity Planning Model; Implications on the role of planners in planning practice

Unit 3: Political Economy Theories and the City

Defining the term political economy; Role of the state in planning; Contributions of David Harvey, Manuel Castells and others; Richard Foglesong and the property contradiction

Unit 4: Collaborative and Communicative Planning

Various components of Collaborative Planning Model; Contributions of Patsy Healey and Judith Innes and others; Deliberative policy analysis; Role of trust in planning; Planning as persuasive storytelling

Unit 5: Capabilities, Race, Gender, Religion and Caste

Defining functioning and capabilities; Exploring relevance of Sen and Nussbaum's capabilities to planning; Role of planning and planners in enhancing capabilities of the poor; Capabilities perspective on slums and squatters; Feminist planning theory; Planning, caste and religion; Planning rights and responsibilities

BPLN-0403: Planning Practice - I

Unit 1: Framing Planning Policies

Role of Town and country planning organization at central level and town and country planning department at state level. Actors framing public planning policies; Influences of various stakeholders on policy formulation; Implementation of public policies

Unit 2: Development Authorities

Types, functions and spatial jurisdictions of development authorities; Reasons for the establishment of development authorities; Place of development authorities in local government

Unit 3: Development and Development Regulations

Working of building bye-laws in planning practice; Requirements for grant of building permissions; Streamlining the development control regulations; Making development control regulations work for the poor. UDPI Guidelines; National Building Code and its implementation

Unit 4: Coordination in Planning Practice

Meaning and types of coordination; Mechanisms of coordination; Case examples of coordination from planning practice

Unit 5: Privatization of Planning Practice

History of privatization of planning; Special Economic Zones; Retail sector developments; Infrastructure development by the private sector.

Note: It is preferable that this course is delivered by practitioners having considerable experience in planning practice.

BPLN-0404: Traffic and Transportation Planning - II

Unit 1: Evaluation of Urban Structures

Transport systems, infrastructure and management, transport systems and their types, design and operating characteristics, urban road hierarchy, planning engineering and management criteria for road and junction improvements, arterial improvement techniques.

Unit 2: Planning and Management of Transport System

Study area definitions, surveys and their types, sampling of travel methods, survey techniques; programming and scheduling, processing of travel data, analysis and interpretation of traffic studies; introduction to transport planning process; trip generation, trip distribution, trip assignment, model split, land use transportation models; existing organizational and legal framework, traffic and environmental management techniques; review of the existing traffic management schemes in case cities.

Unit 3: Regional Transport Systems

Importance of accessibility in regional transport planning, role of road, rail, air and water transport systems, regional transport systems planning; road network planning for micro regions.

Unit 4: Transport and Environment

Traffic noise, factors affecting noise, noise abatement measures, standards; air pollution standards; traffic safety; accident reporting and recording systems, factors affecting road safety; transport planning for target groups- children adults, handicapped and women; norms and guidelines for highway landscape; street lighting types, standards and design considerations.

Unit 5: Economic - Evaluation and Transport Policies

Pricing and funding of transport service and systems, economic appraisal of highway and transport projects; techniques for estimating direct and indirect road user costs benefits, value of time; review of national, state and local level transport policies and their relevance in spatial and economic planning, pricing and funding of transport systems; energy and environmental implications in transport; transport policy planning; Transport planning in developing countries.

BPLN-0405: Ecology, Environment and Resource Development

Unit 1: Introduction

Meaning and scope of ecology; evolution of ecology; man, environment and ecosystem; components of nature and basis concepts and processes of ecology; flow of material water energy, invasion, succession, predation, regulatory forces, adaptation, trophic levels, food chain, food web, ecological pyramids; Environmental zones.

Unit 2: Ecosystem and its Relevance to Environment

Resources and human settlements impact of advanced agricultural methods, urbanization and industrialization on nature; urban ecosystem approach evolution and significance; soil, water, land, vegetation and solar, biomass, wind, hydro energy resources; settlement planning and energy conservation; development and management

Unit 3: Quantitative Ecology

Introduction to quantitative ecology, identification of ecological parameters for planning at different levels; site planning, settlement planning and regional planning; data needs and format for data collection; types of analysis required to evolve ecological parameters. Planning for environmentally sensitive areas.

Unit 4: Environmental Impact Studies

EIA - meaning, significance and framework; Methodologies - checklist, matrices, network and social cost-benefit analysis; sources and acquisition of environmental information; Environmental land use classification; Environment impact studies of development projects.

Unit 5: Environmental Policies

Global and national policies on environment; Five year plans in relation to environmental aspects; Legal measure for protection of environment; Environmental awareness and education in India; Agencies involved in environment protection; Public participation; Role of planners in shaping the future environment

BPLN-0406: Housing and Community Planning

Unit 1: Introduction

Significance of housing in National Development Goals; Equity and efficiency parameters of housing; Current issues in housing

Unit 2: Assessing Housing

Existing Housing Statistics; definitions; urban and rural housing statistics; Introduction to concepts of Housing Shortage, Housing Need, quantitative and qualitative aspects of housing; Housing Demand - Understanding current methods of demand assessment; Knowledge of data sources and their use and interpretation; census, NSSO and other data; Limitations of existing methods of assessments.

Unit 3: Housing Development Process

Understanding of factors affecting residential location, theoretical knowledge of ecological, neo-classical, institutional approach to housing; Housing subsystems and their characteristics: formal and non-formal housing; Process of Public and private sector housing development process; policy context, actors and their interrelationships; Inner city housing, Slums, Squatter housing, Unauthorized Housing; Role of different institutions in housing; International agencies, NGOs, State, Financing Organizations, Private developers, cooperatives.

Unit 4: Housing Standards and Design

Factors determining residential densities; Densities, costs and development control regulations; Housing designs parameters and their relationship to costs; Housing design and climate; Housing for disaster prone areas. Communities; its characteristics and housing; socio-economic implication of slums, clearance/ improvement of slum; sites and services schemes, squatter upgrading, incremental approach

Unit 5: Housing Policy Analyses

Understanding and evaluation of Housing Policy and programmes in India; five year plans, Central government policy; Policy framework for urban and rural housing; Comparative policy analysis; Housing for the low income groups; Cooperative housing, objectives and principles; management and financing of housing projects; investment in housing in public and private sectors.

BPLN-0407: Settlement Sociology

Unit 1: Understanding Sociology

Sociology as a science; Sociological imagination and rethinking; Applied sociology

Unit 2: Sociological Perspective and Organizing Social Life

Functionalist perspective, Conflict perspective, Internationalist perspective; Culture of space and cultural ecology; Social structure and social control; Stratification and social inequality; Social mobility and Social defiance

Unit 3: Social Institutions

Family, kinship pattern and authority; Religion as social work and significance in planning; Voluntary associations (identifying NGOs and involving them as partners of development, operational issues); Groups (primary, secondary and reference groups)

Unit 4: Community Development

Development induced displacement (anthrop-social considerations); Resettlement and rehabilitation; Neighbourhood pattern and development strategy; Rural and urban issues; Community based and workshop based methods; Qualitative data Analysis; Report writing

Unit 5: Gender and Development

Gender and sex; Gender sensitive; Gender and development planning; Gender and implications for spatial planning

THIRD YEAR: FIFTH SEMESTER

BPLN-0501: Planning Studio V (Area Planning)

Unit 1: Approaches to Plan Making

The different approaches to plan making; the concepts of master plan, comprehensive development plan - the structure plan, the sector plan, the *area* / zonal plan, and other types of plan making processes

Unit 2: Relationship among Plans

Relationship of higher order plans with lower order plans

Unit 3: Framework for Zonal Plans

The approach to developing the *area* / zonal plan in the framework of a given master plan

Unit 4: Planning Standards

The study and development of the relevant planning standards for different land uses

Unit 5: Zonal Plans/Area Plans

Detailing of specific sites in the proposed area / zonal plans, covering different land uses