FACULTY OF ARCHITECTURE

PARUL UNIVERSITY

M. PLANNING (URBAN AND REGIONAL PLANNING)

TEACHING SCHEME

First Year 1st Semester

Sub. code	Subject name	Credits	Contact Hours / week			End Semester Exam Marks		Continuous Evaluation Marks			Total Marks	End Semester Examination Type
			Field Work	Lectures	Studio	T/D	V/P	J	S	I		
01201101	**Planning Studio**	6	1	1	4	-	-	60	20	20	100	-
01201102	**Planning Techniques**	3	1	2	-	50	-	25	15	10	100	Theory
01201103	**Infrastructure and Transport Planning**	3	1	2	-	50	-	25	15	10	100	Theory
01201104	**Basic Planning Techniques**	3	1	1	1	-	-	25	50	25	100	-
01201105	**Housing Environments and Planning**	3	1	2	-	50	-	25	15	10	100	Theory
01201106	**Planning History and Theory**	3	1	2	-	50	-	25	15	10	100	Theory
01201107	**Socio-economic basis for Planning**	3	1	2	-	50	-	25	15	10	100	Theory
	Total	**24**									**700**	

Where
T/D- Theory/Drawing
V/P- Viva/Portfolio Assessment
J - Jury
S - Submission
I - Internal Test

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PROPOSED SYLLABUS

FIRST YEAR M. PLANING (URBAN AND REGIONAL PLANNING) 1ST SEMESTER

SUBJECT: PLANNING STUDIO-I

Subject Code: 01201101

Focus: To study appreciation of Site Planning, Area Planning and City Development Plan

Content:

Film Appreciation (Individual Assignment)

Films related to city development and socio-economic issues will be screened for students. The purpose of these films is to educate the students' understanding of various development issues and to absorb them in the planning practice. At the end of the film, a discourse around the film will also be held.

After viewing the films, each student is expected to write about its main focus, city / region context, its applicability to Indian environment by answering the given questions in not more than half a page.

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).

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 ascommercial, 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 bylocal population. Look for specific infrastructure such as Water supply, drainage (water loggingareas), 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 aboveaspects.

Site Planning (Individual Assignment)

Site planning is a process whereby the optimum utilization of potential of site is considered recognizingthe constraints the site has. It uses 3 dimensional space of the site and the associated locationaladvantages, 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 tolocation. A student is expected to understand the intricacies and interface between various variablessuch as soil conditions, topography, environmental dimensions, location, spatial standards applicable tothe site, etc.

City Development Plan (Group Assignment)

A City is a multi-dimensional, dynamic and a futuristic space. Understanding city involves appreciatingthis multi direction, and include them in the city making process. A job of physical planner does notmerely understand the current conflict in development but to emerge out of this and to come out with avision for the city. To arrive at this vision, a planner needs to understand the dynamics of variouscomponents 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 afuturistic vision in terms of scenario building.

References:

1. 'Site Planning', by Kevin Lynch, The MIT Press
2. 'Residential Landscape Sustainability – A Checklist Tool', by Carl Smith, Nigel Dunnett and Andy Clayden, Wiley-Blackwell
3. 'Revised Tool Kit for Preparation of CDP', by Ministry of Urban Development, Government of India

SUBJECT: PLANNING TECHNIQUES

Subject Code: 01201102

Focus: To study Mapping and Survey Techniques and Spatial Standards.

Content:

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 orcoding and expected outputs; Techniques of preparing base maps includingunderstanding the concepts of scales, components and detailing for various levelsof plans like regional plan, city plan, zoning plan, and local area plan.

Analytical Methods

Classification of regions, delineation techniques of various types of regions, analysisof structure of nodes, hierarchy, nesting and rank size; Scalogram, sociogram, etc.;Planning balance sheet; Threshold analysis; Input output analysis, SWOT analysis

Demographic Methods

Methods of population forecasts and projections; Lorenz Curve, Ginni Ratio, Theil'sindex, rations: urban – rural, urban concentration, metropolitan concentration;Location dimensions of population groups – social area and strategic choiceapproach – inter connected decision area analysis.

Planning Standards

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

References:

1. ‘An introduction to Town planning Techniques’, by Margaret Robert, Hutchinson Educational, Hutchinson
2. ‘Principles and Practice of Town and Country Planning’, by Lewis B. Keeble, Estates Gazette Ltd.
3. ‘Urban Planning Methods’, by Ian Braken, Routledge
4. ‘Urban Planning Analysis: Methods and Models’, by Donald A. Kruekeberg and Arthur L. Silvers, John Wiley & Sons Inc.

SUBJECT: INFRASTRUCTURE AND TRANSPORT PLANNING

Subject Code: 01201103

Focus: To study the elements of infrastructure and role of transport in urban and regional planning.

Content:

Role of Infrastructure in Development

Elements of Infrastructure (physical, social, utilities and services); Basic definitions,concepts, significance and importance; Data required for provision and planning ofurban networks and services; Resource analysis, provision of infrastructure, andland requirements; Principles of resource distribution in space; Types, hierarchicaldistribution of facilities, Access to facilities, provision and location criteria, Normsand standards, etc.

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

Storm water – rainfall data interpretation, points of water stagnation, system ofnatural drains, surface topography and soil characteristics, ground waterreplenishment, storm water collection and disposal, norms and standards,institutional arrangements, planning provisions and management issues;

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, normsand standards, institutional arrangements, planning provisions and managementissues.

Power – Sources of power procurement, distribution networks, demandassessment, norms and standards, planning provisions and management issues.

Fire – History of fire hazards, vulnerable locations, methods of fire fighting, normsand standards, planning provisions and management issues.

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, landuse – transport cycle, concept of accessibility; Hierarchy, capacity and geometricdesign elements of roads and intersections**;** Basic principles of Transportinfrastructure design; Traffic and transportation surveys and studies, traffic andtravel characteristics; Urban transport planning process – stages, study area, zoning,data base, concept of trip generation Transport, environment and safety issues;principles and approaches of traffic management, transport system management.

References:

1. 'Crisis in Road Transport', by Mohinder Singh and L.R Kadiyali, Konark Publishers Pvt. Ltd
2. 'Traffic engineering and Transport planning', by L.R Kadiyali, Khanna
3. 'Environmental scenario in India: Successes and Predicaments', by S. Mukherjee and D. Chakraborty (Editors), Routledge
4. 'Infrastructure and Governance', by S. Kochhar, D. B Phatak, H. Krishnamurthy and G. Dhanjal (Editors), Academic Foundation

SUBJECT: BASIC PLANNING TECHNIQUES

Subject Code: 01201104

Focus: To study sources of demographic data and applications for GIS and remote sensing for Urban and Regional Planning.

Content:

GIS Applications

Coordinate system and geo-coding, vector data structure and algorithms, rasterdata structure and algorithms, data bases for GIS – concepts, error modeling anddata uncertainty, decision making through GIS, constructing spatial datainfrastructure and spatial information system; National Urban Information system.

Remote Sensing

Why remote sensing, aerial and satellite remote sensing, principles of aerial remotesensing, Aerial photo-interpretation, photogrammetry, stereovision, measurementof heights / depths by relief displacement and parallax displacement. Principles ofsatellite remote sensing, spatial, spectral, temporal resolutions. Applications inplanning, population estimation, identification of squatter / unauthorized areas,sources of pollution, etc., spatial resolution related to level of Planning

Demography

Sources of demographic data in India, Settlement type, growth pattern andstructure: urban settlement analysis, Concentration: spatial, vertical and size, periurbansprawl, economic base; Rural Settlements – Size, occurrence and character,transformation, Policies towards various size class settlements.

Population structure and composition – Age, sex, gender, marital status, caste,religion, literacy level, etc.; Age - sex ratio, structure, pyramid; dependency ratio;occupational structure; Fertility; mortality, migration analysis, natural growth ofpopulation, migration and its implications in spatial planning;

Statistical Applications

General concepts - statistical interference, population and samples variables,Sampling, simple statistical models, Measures of central Tendency, Measures ofDispersion, Measures of shape of distribution, Correlation and regression

References:

1. 'Geographic Information Systems and Science', by P. Longley, M. Goodchild, D. Maguire and D. Rhind, John Wiley & Sons
2. 'Fundamentals of Remote Sensing', by S.C Bhatia, Atlantic
3. 'Elements of Demography', by V.C Sinha and E. Zacharia, Allied Publishers Pvt. Ltd.
4. 'Introduction to Statistical Analysis', by F.J Dixon, Wilfrid J. and Massey, McGraw Hill Book Company

SUBJECT: HOUSING ENVIRONMENTS AND PLANNING

Subject Code: 01201105

Focus: To introduce the basic definitions, concepts and socio-economic dimensions relevant to Housing.

Content:

Concepts and Definitions

Shelter as a basic requirement, determinants of housing form, Census of Indiadefinitions, 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, houselesspopulation. Various housing typologies viz. traditional houses, plotteddevelopment, group housing, multi-storied housing, villas, chawls, etc.

Social and Economic Dimensions

Housing as social security, role of housing in development of family and communitywell being, status and prestige related to housing, safety, crime and insecurity,deprivation and social vulnerability, ghettoism, gender issues, housing for theelderly.

Contribution of housing to micro and macro economy, contribution to nationalwealth and GDP, housing taxation, national budgets, fiscal concessions, forward andbackward linkages

Housing and the City

Understanding housing as an important land use component of city plan / masterplan, considerations for carrying out city level housing studies, projections, land useprovisions; Suitability of land for housing, housing stress identification, projectinghousing requirements, calculating housing shortages, housing allocation.

Housing Environments

Slums and squatters, night shelters, public health issues related to housing, varioustheories of housing, concept of green housing, green rating of housing projects;basic services for housing neighbourhoods.

Approaches to neighbourhood living intraditional and contemporary societies, elements of neighbourhood structure

Planning and design criteria for modern neighbourhoods, norms and criteria for areadistribution, housing and area planning standards, net residential density and grossresidential density, development controls and building byelaws, UDPFI guidelines,NBC 2005 provisions and Case studies of neighbourhood planning.

References:

1. 'People and Housing in Third World Cities', by D. J Dwyer, Longman
2. 'Housing: a factual analysis', by Glenn Beyer, Macmilan Company
3. 'Man's Struggle for Shelter in Urbanizing World', by Charles Abrams, The MIT Press
4. 'Urban Housing in the Third World', by Geoffrey Payne, RoutledgeKegan and Paul
5. 'Inside the Civano Project (Green source Books): A Case Study of Large-Scale Sustainable Neighborhood Development (McGraw-Hill's Green Source)', by C. Alan Nicholas and Jason A. Laros, McGraw-Hill Education
6. 'Sustainable Urbanism: Urban Design with Nature', by Douglas Farr, John Wiley & Sons
7. 'Shelter in India-sustainable Development Series', by AromarRevi, Stosius Inc./ Advent Books Division
8. 'Eco Housing Assessment Criteria-New Construction', by International Institute for Energy Conservation (IIEC)', USAID

SUBJECT: PLANNING HISTORY AND THEORY

Subject Code: 01201106

Focus: To study the history of urban and regional planning.

Content:

Evolution of City Building

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

Planning History

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

Definitions and Objectives of Planning

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

Theories of City Development and Planning Theories

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

ofthe city; Shadow cities, divided cities; Models of planning: Advocacy and Pluralismin Planning; Systems approach to planning: rationalistic and incrementalapproaches, mixed scanning and middle range planning; Equity planning; PoliticalEconomy Model; Types of development plans, plan making process.

References:

1. 'Cities of tomorrow: An intellectual history of urban planning and design since 1880', by P. Hall, Wiley-Blackwell
2. 'One Hundred Years of City Planning's Enduring and Evolving Connections (Journal of American Planning Association)', by E.L Birch and C. Silver, Routledge
3. 'Making the Invisible Visible: A Multi-cultural Planning History', by L. Sandercock, University of California Press
4. 'Four Critical Junctures in the History of the Urban Planning Profession - An exercise in hindsight (Journal of American Planning Association)', by M. P Brooks, Routledge
5. 'Urban and Regional Planning: A Systems Approach', by J.B McLoughlin, Faber and Faber
6. 'A Reader in Planning Theory', by A. Faludi, Peragamon Press
7. 'Collaborative Planning: Shaping Places in Fragmented Societies (Planning, Environment, Cities)', by Prof. P. Healey, Palgrave McMilan
8. 'Urban and Regional Planning', by P. Hall and M. Tewdwr-Zones, Routledge

SUBJECT: SOCIO-ECONOMIC BASIS FOR PLANNING

Subject Code: 01201107

Focus: To develop understanding with relevance to Socio-economic Issues in Urban and Regional Planning.

Content:

Nature and Scope of Sociology

Sociological concepts and methods, man and environment relationships; Socio-culturalprofile of Indian society and urban transformation; Tradition and modernityin the context of urban and rural settlements; Issues related to caste, age, sex,gender, health safety, and marginalized groups; Displacement, resettlement andrehabilitation due to compulsory land acquisition.

Community and Settlements

Social problems of slums and squatters communities, urban and rural socialtransformation and their impact on social life, safety, security; Crimes in urbanareas and their spatial planning implications, social structure and spatial planning;Role of socio-cultural aspects on growth patterns of city and neighbourhoodcommunities; Social planning and policy, and community participation;Marginalization and concepts of inclusive planning, and gender concerns inplanning. Settlement Policy: National Commission on Urbanization, Rural HabitatPolicy and experiences from developing countries regarding settlement structure,growth and spatial distribution.

Elements of Micro and Macro Economics

Concepts of demand, supply, elasticity and consumer markets; concept of revenuecosts; Economies of scale, economic and social costs, production and factor market;Different market structures and price determination; market failures, cost-benefitanalysis, public sector pricing; Determinants of national income, consumption,investment, inflation, unemployment, capital budgeting, risk and uncertainty, andlong-term investment planning.

Development Economics and Lessons from Indian Experiences

Economic growth and development, quality of life; Human development index,poverty and income distribution, employment and livelihood; Economic principlesin land use planning; Policies and strategies in economic planning, balanced versusunbalanced growth, public sector dominance; changing economic policies,implications on land.

References:

1. 'Urban Sociology', by N. Jayapalan, Atlantic Publishers and Distributors
2. 'Urban Sociology-Images and Structure', by William G. Flanagan, Rowman and Littlefield Publishers
3. 'Sustainability and Human Settlements: Fundamental Issues, Modeling and Simulation, by Mani Monto, L.S. Ganesh and K. Verghese, SAGE Publications Pvt. Ltd.
4. 'Principles of Economics', by D. N Dwivedi, Vikas Publishing House Pvt. Ltd.
5. 'Principles of Economics', by Karl E. Case, Pearson Education
6. 'The Economics of Development and Planning', by M. L Jhingan, Vrinda Publications Pvt. Ltd.