

B. Planning

UG Program Structure [B. Planning] Structure [M] Group

w.e.f AY 2019-20 and Applicable for batches admitted from AY 2019-20 to 2022-23

[M- Group: Mechanical, Civil, Metallurgy & Material Science, Production S/W]

Semester VII [M-Group]

Sr. No.	Course Type	Course Code	Course Name	Teaching Scheme			Credits
				L	T	P	
1	PCC1		Planning for Regions	3	0	0	3
2	PCC2		Sustainable Urban Development	3	0	0	3
3	PCC3		Urban Management and Governance	3	0	0	3
4	DEC3		Metropolitan Planning and Development	3	0	0	3
			Public Policy and Planning				
			Real Estate Development				
			Planning for Smart Cities				
5	SBC3		Planning Thesis – I	0	0	4	4
6	SLC2		Professional Training	0	0	0	1
7	LC8		Planning and Design Studio –VII (Regional Planning)	0	0	8	4
8	MLC		Intellectual Property Rights	1	0	0	0
9	LLC		Liberal Learning Course	1	0	0	1
				14	0	14	22
				28			22

Semester VIII [M-Group]

Sr. No.	Course Type	Course Code	Course Name	Teaching Scheme			Credits
				L	T	P	
1	PCC1		Urban Finance	3	0	0	3
2	PCC2		Planning Practice and Ethics	3	0	0	3
3	SBC4		Planning Thesis - II	0	0	6	10
				6	0	6	16
				12			16

Semester VII

(PCC1) Planning for Regions	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

CO1: Appreciate process of preparation of regional plan.

CO2: Understand basic Concepts of regional level analysis and their interpretations.

Unit 1: Introduction to Region (6Hrs)

Concept of regional planning: nature, aim & objectives, levels; Concept of a region, types, and regionalization

Unit 2: Interactions within a Region (8Hrs)

Regional interaction: Rank Size Rule, Settlement patterns, Guttman scale, centrality function method, Central place theory; Regional networks and linkages, hierarchy of rural connectivity

Unit 3: Regional Developments (10Hrs)

Regional development; Balanced and unbalanced development; Under-development; Regional multiplier, input-output model; spatial equilibrium model: basic concept of spatial equilibrium model, spatial inequality, theory of spatial inequalities, theories of regional inequalities, theories of urban equalities; Core-periphery model; Growth poles theory.

Unit 4: Planning Processes (6Hrs)

Regional planning processes: Identification of plan objectives; collection, classification and analysis of data; Norms and standards for regional planning; Formulation of alternative plan proposals with respect to population distribution, location of new regional economic activities, infrastructure, plan implementation, etc.

Unit 5: Case Studies (6Hrs)

Selected case studies in regional development, National Capital Region, Mumbai Metropolitan Region, Bangalore regional plan, PMR Region etc.

References Books:

1. Manual for integrated district Planning, Planning Commission, India
2. ITPI, City and metropolitan planning and design
3. Bawa, V. K., Indian Metropolis: urbanization, planning and management.
4. NCRPB, Regional plan, 2001, 2021

5. Ramchandani R, Urbanization and urban Systems in India
6. TCPO, Urban and Regional Planning and development in India
7. Hall Peter and Tewdwr Jones, M. Urban and regional Planning

(PCC2) Sustainable Urban Development	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2- 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

CO1: Students will be able to figure out the Concept and Issues of Sustainable Urban Development.

CO2: Students will be able to use the methods and techniques for Sustainable Urban Development.

CO3: Students will be able to realize implications of urban form, density, land-use pattern, transportation in land and Energy Conservation.

CO4: Students will be able to realize the concerns for ensuring purity of Air & Water, with Solid Waste management

Unit 1: Concept, Issues and Sustainable Development Goals (10Hrs)

Changing perspectives in man-environment relationship with focus on issues of population, urbanization, resource depletion and pollution; limits to growth vis-a-versa sustainable economy; growth and environmental imperatives of developing vs. developed countries; definitions, concepts and parameters in sustainable development with particular reference to Brundt land Commission (SDG), Sustainable Urban Development Goals, Agenda 21, Eco-City approach, etc.

Unit 2: Methods and Techniques (10Hrs)

Application of ecological principles in sustainability: energy and resource cycles, food webs, ecological pyramids and evolution and succession of natural ecosystems; Carrying Capacity based planning: concept, parameters and indicator measures, models and case studies in urban and regional development; Environmental Impact and Strategic Environmental Assessment for urban areas; Ecological Footprint Analysis of cities; Sustainable Lifestyle Assessment and behavioural modifications at household levels.

Unit 3: Implications of urban form, density, land-use pattern, transportation in land and Energy Conservation (8Hrs)

Land capability and suitability analysis in location and planning of urban land uses; implications of urban form, density, land use pattern and transportation system in land and energy conservation.

Unit 4: Role of Water, Air Quality & Solid Waste Management (8Hrs)

Urban interference in hydrological cycle, with particular reference to water pollution, water resources, drainage and natural ecosystems; urban water treatment, recycling and harvesting; use of non-conventional energy sources in urban development. Sources, types and effects of air pollution and solid waste disposal in cavities, urban industrial processes and land use and transportation implications in air and solid waste pollution; norms, standards, laws, organizations and policies in urban air quality control and solid waste management; examples of best practices.

Reference Books:

1. Handbook on Urban Sustainability by Munier, Nolberto. Springer 2007
2. Climate Resilient and Sustainable Urban Development, The Energy and Resource Institute. TERI 2011
3. Shanghai Manual, A Guide for Sustainable Urban Development of the 21st Century, Union Nations 2010
4. Working Group Report on Environmental Sustainability of Indian Cities, Planning Commission 2012

(PCC3) Urban Management and Governance	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

CO1: Learn the Importance and role of Management in Urban Development

CO2: Learn the Urban development in India.

CO3: Learn about various organizations for urban development

CO4: Learn about urban development and public/ private sector

CO5: Learn financing urban development, and basics of municipal finance as functions fashions finance.

Unit 1: Introduction to urban governance (8 Hrs)

Meaning of governance and government; Scope of governance, evolution of concept of governance; Theories of local government; History of urban local bodies in India; Evolution of modern urban local governments during British rule; Decentralization of local government; Recommendations of various committees; Politics and progress of decentralization; Government, governing and governance; Determinants and indicators of good governance; Citizen's charter and other instruments; Governance and finance

Unit 2: Role of Management in Urban Development (7Hrs)

Definition, objectives and scope of management; Role of management in developing economy; Meaning and theory of organization; Urban development as a decision-making process and a corporate activity; Application of management techniques in urban planning and development

Unit 3: Urban Developments in India (7Hrs)

Urban development in India: problems and issues, policies, programs and provisions in the national five-year plans; processes of decision making for urban development at national, regional, state, district and local levels. (Governance 3 tier structure, urban management tool)

(7Hrs)

Unit 4: Organizations for Urban Development

Various national, state, regional, district and local level organizations involved in urban development and management in India, their background, functions, powers, organization structure and resources; Case studies.

Unit 5: Urban Developments and Public/ Private Sector (7Hrs)

Urban development bodies; urban development authorities: background, functions, powers, organization structure and resources, Case studies; Role of NGOs and private organizations in urban development, relationships with local and state governments.

Unit 6: Government program and policies (major schemes) (7Hrs)

Reference Books:

1. William I. Goodman and Principles and Practice 1968 Goodman Eric C. Freund of Urban Planning (Municipal Management)
2. High Powered Expert Report on Indian Urban 2011 NIUA/MoUD Committee (under Infrastructure and chairpersonship of Ms. Services Isher Ahluwalia)
3. McKinsey Global Institute India's Urban 2010 McKinsey Global Awakening: Building Institute

(DEC3) Metropolitan Planning Development and Management	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

CO1: Graduates will develop the understanding on Metropolis and respective issues in planning and development

CO2: Graduates will learn strategies to develop metropolitan regions

CO3: Graduates will develop theoretical knowledge of various process of developing a metropolitan region that will further help them in Regional Planning

Unit 1: Metropolis and Metropolitanization (7Hrs)

Introduction to metropolis and related concepts, growth and scale; Complexities: social, economic, physical and administrative; Metropolitanization in India: general trends and distribution; Issues and problems in metropolitan planning and development.

Unit 2: Metropolises and its Region (7Hrs)

Area of influence, service area of a metropolis; Metropolis as a primate city; Concept of degree of primacy; Metropolitan region and delineation techniques; Metropolitan regional structures: characteristics, components and spatial patterns

Unit 3: Forms (7Hrs)

Metropolitan centralization and decentralization processes; Concepts of ring and satellite towns, counter-magnets; Forms and concepts for metropolitan planning and development: Sheet, Galaxy, Core, Star, Ring and Multi-nucleated; Merits and demerits; Efficient functioning of metropolis

Unit 4: Metropolitan Planning, Development and Management Strategy (7Hrs)

Metropolitan planning: spatial planning studies and surveys; Concepts and techniques of preparation of metropolitan city plans; Metropolitan planning, development and management strategies at regional and settlement levels; Tools and constraints in the implementation of metropolitan development plan in terms of administration, legal and financial aspects; Role and function of public participation.

Unit 5: Case Studies in Metropolitan Planning and Development (7Hrs)

Metropolitan planning, development and management in India; Appraisal of planning and development efforts in case of some of the metropolises, viz. Kolkata, Mumbai, Delhi and Chennai, etc

Reference Books:

1. City and Metropolitan Planning and Design- ITPI, New Delhi
2. Urbanization and Urban Systems in India by R. Ramachandran. Oxford University Press, 1998

3. Indian Metropolis: Urbanization, Planning and Management by V.K. Bawa. Inter-India publications, New Delhi

(DEC3) Public Policy Planning	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

CO1: Understand basic concepts of public policy in planning process.

CO2: Evaluate the policy making process and skills of policy makers.

CO3: Analyzing the process of transforming policies in real world.

CO4: Review current policies and understand the importance of policy monitoring.

CO5: Evaluate limitations in implementations of public policies in real world.

Unit 1: Definition of policy and stages of policy making process (9Hrs)

Definition, Need of evolving, Policy for Private sector and Public Sector, Types of Public Policies, Central-State linkage. Issue and stakeholders' identification, Setting Agenda, Policy Formulation, Policy Adoption/Legitimization, Implementation, Assessment/Evaluation, Review, Tasks involved in issue identification and Policy formulation, Policy making - Organizational, Political and Wider Public context

Unit 2: Attributes of a good policy making process and skills of Policy- Makers (5Hrs)

Up-to-date knowledge of the subject matter made available, use of relevant data and Analytical tools, grouping together related sectors having significant policy interactions, Impact of Policy for one Sector on other Sectors considered, Analysis of trade-offs, Assessment of Winners and Losers from a given policy, Involving the implementers and those likely affected in policy formulation, Independence to policy makers. Up-to-date knowledge of the subject matter made available, use of relevant data and Analytical tools, grouping together related sectors having significant policy interactions, Impact of Policy for one Sector on other Sectors considered, Analysis of trade-offs, Assessment of Winners and Losers from a given policy, Involving the implementers and those likely affected in policy formulation, Independence to policy makers

Unit 3: Structure of policy document and transforming policy into real world (4Hrs)

Title, Description of the problem, Proposition of the preferred policy, Comparative analysis of policy options and discussion of their impact, Justification of the proposed policy, concluding remarks, Reference list, Writing guidelines. Procedures and guidelines for Policy Implementation, Pilot roll-out and validation, Tools required, Organizational Structure, assigning Roles, Interaction between the policy planners and implementers, Capacity building of Implementers

Unit 4: Policy monitoring and policy review (5Hrs)

Period of monitoring and persistence, assessment w.r.t. pre-identified parameters in terms of desired objectives, identifying issues in implementation, Simultaneous corrections in

procedural aspects. Frequency of review, how to measure success/failure, Parameters of review, Translating review findings into revision/clubbing/replacement/withdrawal of the policy, some Public Policies (outside Urban Planning) and reasons of Success/ Failure

**Unit 5: Public Policy Making - issues and remedies and public policies related to (7Hrs)
Urban Planning and Development**

Issues - Excessive fragmentation in thinking and action, Excessive overlap between policy making and implementation, lack of non-governmental inputs and informed debate, lack of systematic analysis and integration prior to policy making, formulating right policy and sticking to it. *Remedies*- Reduction in fragmentation, Segregating policy - making from implementation, decentralizing implementation authority, improving integration and the flow of knowledge from outside Government, improving competence and skills of policy-making manpower. Study of Policies of Central Govt. and selective State Govts., Housing Policy, Integrated Township Policy, Transit Oriented Development, Change of land use-zone etc.

Reference Books:

1. Bahl, Ray, W. and J. Link, Urban Public Finance in Developing Countries, 1992 Oxford University Press, New York
2. Kulwant Singh and Behnam Tai, Financing and Pricing of Urban Infrastructure, 2000 New Age International, New Delhi
3. K Pandey, Stimulating Revenue Base of Urban Local Bodies, 2010 IIPA, New Delhi
4. George E. Peterson and Patricia C. Annez, Financing Cities 2007 Sage Publishers, World Bank
5. HPEC Report on Urban Infrastructure 2011 Ministry of Urban and Services Development, Government of India / NIUA
6. Peterson, G. Unlocking Land Values 2009 Cambridge University Press
7. Nishith Rai Urban Governance in India 2010 RCEUS
8. Dr. O. M. Mahala, Urban India: Emerging Challenges in Liberalized Era, 2011, Neha Publishers and Distributors
9. K.C. Siva Ramakrishnan, Growth in Urban India Issues of Governance, 2006, Centre for Policy Research
10. I.S.A Baud and Joop de wit, new forms of urban governance in India, 2009 SAGE India

(DEC3) Real Estate Development	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

CO1: Apply the concept of land economics for giving solutions in real estate

CO2: Perform financial calculation pertaining to Real Estate projects

CO3: Understand Real Estate markets through various government policies

CO4: Perform cost benefit analysis of any urban development program

Unit 1: Land (8 Hrs)

Economic concepts of land, objectives and scope of land economics; relevance for spatial planning; economic principles of land uses; economic rent, land use and land values, market mechanism and land use pattern.

Unit 2: Developments of Land and Real Property (6 Hrs)

Process, cost of development, source of finance, and financial calculation for real estate developer

Unit 3: Real Property Markets (10 Hrs)

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; 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 4: Factors Influencing Locational Decisions (6 Hrs)

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 program.

Unit 5: Case Studies (6 Hrs)

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/ sale deeds, sale documents, registration; Mortgage and pledging, RERA

Reference Books:

1. Urban Planning and Real Estate development by John Ratcliff, et.al, Routledge Publications
2. Principles of Real Estate by Arthur Weimer et.al. The Ronald Press company, NY

(DEC3) Planning for Smart Cities	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

CO1: To understand concepts and models of 21st century green and smart cities

CO2: To examine the core challenges and current international strategies relating to the foundation of sustainable smart cities

CO3: To develop knowledge, understanding, and critical thinking related to smart, sustainable urban development

Unit 1 **(6Hrs)**

Course introduction, the evolution of cities up to the present day: social, political and spatial planning models, Urbanization and its impacts on cities, Urban evolution in India, Changing patterns of urban growth, Quality of life in the city.

Unit 2 **(6Hrs)**

Efficiencies and inefficiencies in cities; challenges and opportunities, Eco challenges in the contemporary cities; Principles of green and smart cities; International initiatives including UN and EU level; Corporate social and environmental strategies in cities;

Unit 3 **(8Hrs)**

Fundamentals of sustainable development; Sustainability and “sustainable development, Climate change indicators and their meaning for cities; Mobility and transportation within urban areas; Green technologies in cities; Green buildings and ecological footprint, Green Infrastructure, Urban sustainability foundations, models, & theories

Unit 4 **(8Hrs)**

Role of local authorities and public participation in shaping the cities; Liveability, place making and Walkability; City services: utilities (water, energy and communications), public street lighting, roadways and traffic, public transport, signage, environmental quality, cleaning of public spaces, waste and sewage management, maintenance, The impact of ICT on the social fabric, on the management of cities and their innovation potential.

Unit 5 **(8Hrs)**

Study of the existing cities, finding problems and how far they are solvable, Designing for Smart cities, Design, development and exhibition of a feasible innovation project which will enrich citizens and the city through all its phases: determining the scope, defining the idea, establishing objectives, identifying partners, selecting and acquiring tools and knowledge, planning and presentation, beginning to put the project into practice.

Reference Books:

1. How Green is Cities? By Dimitri Devuyst, Columbia University Press, New York
2. Sustainability Science and Engineering Vol 1, By Martin A. Abraham (editor) Elsevier Publication
3. www.smartcitiescouncil.com
4. City Region 2020, by Joe Ravetz, Earthscan Publication Ltd, London, 2000.

(SBC3) Planning Thesis - I	
Teaching Scheme	Examination Schemes
Practical: 4 Hrs/week	Mid Sem – 50 marks
	End Sem- 50 Marks

Course Outcomes:

CO1: Learn to identify scope for conducting research.

CO2: Learn application of research techniques acquired by them.

CO3: Verify their planning proficiency acquired during the course of program.

CO4: Develop competency to work in professional fields.

Each student of Bachelor of Planning is required to prepare a thesis on the subject of his / her choice, concerning urban, regional or rural planning. The topic shall be approved by the concerned department. Thesis will provide an opportunity to the student to conduct independent research by using the skills of analysis and synthesis learnt through various theory and practical courses. Thesis will be completed under the guidance of an approved research supervisor allotted by the Department. Thesis will be prepared by the student as per Thesis Manual prepared by the Department. The students will be required to present thesis orally, graphically and through written report. The student will also be required to present her thesis before the external jury appointed by the concerned University / Institute / School.

Unit 1: Need for the Study and Formulation of Goals and Objectives

Clear goals and objectives along with scope of each objective should be outlined before establishing the need for conducting a research study; Substantive limitations of the research work should also be stated

Unit 2: Literature Search

Previous published work on the subject area has to be critically examined for finding out existing thought processes of other authors and trends (proper acknowledgements to be given to authors)

Reference Books:

1. Brubaker, D.L. and Thesis and Dissertations: A - Thomas, R.M. Guide to Planning, Research and Writing.
2. Rowena Murray How to Write a thesis (3rd - Open University Press Edition)
3. F. Abdul Rahim Thesis Writing 2005 New Age International (P) Limited Publishers, New Delhi.

(SLC2) Professional Training	
Teaching Scheme	Examination Schemes
	End Sem- 100 Marks

Course Outcomes:

CO1: To Develop work habits, attitudes, interpersonal and other critical skills necessary for job success.

CO2: To Build a record of work experience and acquire employment contacts leading directly to a full-time job following graduation from college.

CO3: To develop a solid work ethic and professional demeanor, as well as a commitment to ethical conduct and social responsibility.

Similar to Summer project in the fifth semester, Professional Training is an off-campus experiential learning activity designed to provide students with an opportunity to enhancing employability.

Students seek an internship of 6-8 weeks in government, autonomous and private organizations in planning and allied fields.

At the end of the Professional Training the students are expected to provide a concise documentation of activities undertaken during internship and timely submission at periodic intervals. The students are required to submit a ‘Satisfactory’ certificate from the relevant Planning Office after completion of internship duration. The summer project culminates in the form of a report and presentation prepared by students. The students are supposed to reflect and include key learning points, insights into individual’s strengths, interests, values, personality, skills, and weaknesses they have learned during the duration of the internship in their report.

The report should highlight the Profile of the Planning Office, its organization structure, key work areas, etc.; Introduction to the project(s) worked upon during training; planning brief; methods employed; and planning - design solutions / proposals.

The students will also be required to present their work through drawings / visuals, power point presentations in the form of a Seminar to the faculty and students of the Department over the seventh semester.

(LC8) Planning and Design Studio – VII (Regional Planning)	
Teaching Scheme	Examination Schemes
Practical: 8 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcome:

CO1: To understand Role and Relevance of Regional Planning in general and the Context of 73rd and 74th CAA in particular.

CO2: To identify relevant primary and secondary data requirement for regional level study.

CO3: To study District / Metropolitan Area / Regional Development Policies and Land Utilization Plan along with Phasing, Monitoring Mechanism, and Governance Structure for Implementation.

CO4: To enable addressing issues of region through plan, policies and proposals

CO5: To provide students with basic understanding of Regional planning process.

CO6: Enable to contribute in preparation of Regional plan, Metropolitan plan, and block level plan

The purpose of the regional plan is not only to detail out polices of regional plan but also to provide a framework within which block, village and urban development plans are to be prepared. Like any spatial plan, integration among various polices remains the critical component of the regional plan. Substantive focus of the regional plan remains on population, settlement patterns, economy, transportation, industry, natural resources, heritage and governance. There may be other areas of concern in the district depending on its special contextual character. District in dry climate and prone to drought have their own specific issues.

Preparation of spatial plans for district, Metropolitan region has assumed even greater significance after the implementation of 73th and 74th amendments to the constitution of India in 1992. More specifically, students may like to examine the difference that a district planning committee, emanating from the 74th amendment, has created for district planning. Further, it may be useful to analyse how effectively block and village level institutional structures have been functioning after constitutional recognition, regular elections and financial backing by state government.

Students are required to prepare a district plan. In the plan, the students should focus on identifying planning issues, problems and potentials so that appropriate future course of action could be charted in the form of specific polices and projects for various sectors in an integrated manner.

Unit 1: Context of Regional Plans

(2 weeks)

Role and relevance of regional planning at district or block level for regional planning, critical appraisal of district or block level plans; Understanding the contents of various types of regional plans and their linkages with higher and lower order plans

Unit 2: Constitutional Provisions

(2 weeks)

District planning in the context of 73rd and 74th Constitution Amendment Acts; District Planning Committees (DPCs); Metropolitan Planning Committees (MPCs) and Ward Committees

Unit 3: Organization of Field Surveys**(2weeks)**

Formulation of goals, objectives, methodologies; identification of data and sources of information; Collection of secondary and primary data for sectoral and spatial planning; detailed data analysis.

Unit 4: Analysis and Synthesis**(4weeks)**

Identification of development issues, potential thrust areas and constraints: sectoral and spatial; designing of alternative planning strategies, settlement patterns and development strategies; Sectoral and spatial prioritization, phasing, financial plans, institutional mechanisms, legislative framework, management plans

Unit 5: Plan, Policies and Proposals**(2weeks)**

Preparation of Regional Plan Document along with maps, plan etc; Preparation of policies and proposals with different scenarios and identification of priority areas; phasing and monitoring; governance structures for implementation; regional land utilization plan and the plan document.

Reference Books:

1. 73rd and 74th amendment act
2. Manual for integrated district Planning, Planning Commission, India
3. NCRPB, Regional plan, 2001, 2021
4. Mumbai metropolitan plan

(ML-19011) Intellectual Property Rights	
Teaching Scheme	Examination Schemes
Lectures: 1 hr/week	Continuous evaluation
	Assignments/Presentation/Quiz/Test

Course Outcomes (CO): Students will be able to

CO1: Infer that tomorrow's world will be ruled by ideas, concept, and creativity.

CO2: Gather knowledge about Intellectual Property Rights which is important for students of engineering in particular as they are tomorrow's technocrats and creators of new technology.

CO3: Discover how IPR are regarded as a source of national wealth and mark of an economic leadership in context of global market scenario.

CO4: Study the national & International IP system.

CO5: Summarize that it is an incentive for further research work and investment in R & D, leading to creation of new and better products and generation of economic and social benefits.

Unit 1

(03 Hrs)

Introduction to the concepts Property and Intellectual Property, Nature and Importance of Intellectual Property Rights, Objectives and Importance of understanding Intellectual Property Rights

Unit 2

(07 Hrs)

Understanding the types of Intellectual Property Rights: -

Patents-Indian Patent Office and its Administration, Administration of Patent System – Patenting under Indian Patent Act, Patent Rights and its Scope, Licensing and transfer of technology, Patent information and database. Provisional and Non-Provisional Patent Application and Specification, Plant Patenting, Idea Patenting, Integrated Circuits, Industrial Designs, Trademarks (Registered and unregistered trademarks), Copyrights, Traditional Knowledge, Geographical Indications, Trade Secrets, Case Studies

Unit 3

(04 rs)

New Developments in IPR, Process of Patenting and Development: technological research, innovation, patenting, development,
International Scenario: WIPO, TRIPs, Patenting under PCT

References:

1. Aswani Kumar Bansal: Law of Trademarks in India
2. B L Wadehra: Law Relating to Patents, Trademarks, Copyright, Designs and Geographical Indications.
3. G.V.G Krishnamurthy: The Law of Trademarks, Copyright, Patents and Design.
4. Satyawrat Ponkse: The Management of Intellectual Property.
5. S K Roy Chaudhary & H K Saharay: The Law of Trademarks, Copyright, Patents
6. Intellectual Property Rights under WTO by T. Ramappa, S. Chand.
7. Manual of Patent Office Practice and Procedure

8. WIPO: WIPO Guide to Using Patent Information
9. Resisting Intellectual Property by Halbert, Taylor & Francis
10. Industrial Design by Mayall, Mc Graw Hill
11. Product Design by Niebel, Mc Graw Hill
12. Introduction to Design by Asimov, Prentice Hall
13. Intellectual Property in New Technological Age by Robert P. Merges, Peter S. Menell, Mark A. Lemley

Semester VIII

(PCC1) Urban Finance	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

CO1: Understand basic concepts of urban governance.

CO2: Appreciate the role of 74th Amendment in effective urban governance.

CO3: Understand basic revenue base of municipalities in India.

CO4: Understand alternative financing mechanisms to finance functioning of cities and infrastructure provision.

CO5: Explain the various means of institutional capacity enhancement in urban finance.

Unit 1: Governance in Post 73rd and 74th amendment scenario **(8 Hrs)**

73rd and 74th Constitution Amendment Act, including – XI and XII schedule; decentralization of powers and functions; Local and participatory planning, bottom up, decentralized and integrated planning processes; Planning, governance and spatial strategy; Best practices of planning and quality of governance.

Unit 2: Municipal Finance and Revenue **(10 Hrs)**

Nature and composition of income and expenditure, limitations and need for revenue enhancements; Expenditure control methods and mechanisms; Budgetary allocation from central and State Governments; Assistance from foreign donors and Multi National agencies; Non-traditional sources of funding; Market access; Pool finance and prerequisite conditions for accessing non-traditional funds; Budget Making Process

Unit 3: Non-Conventional Funding sources **(8Hrs)**

Types of partnership approaches; Privatization of civic services; public private partnership mechanisms; Types of contracts and ownerships; Emerging cost effect technology interventions; User charged projects; Pricing of services; Land based financing instruments; Impact fee, subsidies; Financial operating plan, city corporate plan; Development of urban indicators; Infrastructure pricing and financing

Unit 4: Financing Urban Development **(10Hrs)**

Financing urban development projects; Sources of funding: cost recovery, cost subsidization, medium- and long-term financing; Private investments in urban development projects: prospects and limitations; Municipal financing: sources of revenue and items of expenditure; Financial resource mobilization for urban development particularly for municipal/ local bodies.

Reference Books:

1. Bahl, Ray, W. and J. Link, Urban Public Finance in Developing Countries, 1992 Oxford University Press, New York
2. Kulwant Singh and Behnam Tai, Financing and Pricing of Urban Infrastructure, 2000 New Age International, New Delhi
3. K K Pandey, Stimulating Revenue Base of Urban Local Bodies, 2010 IIPA, New Delhi
4. George E. Peterson and Patricia C. Annez, Financing Cities 2007 Sage Publishers, World Bank
5. HPEC Report on Urban Infrastructure 2011 Ministry of Urban and Services Development, Government of India / NIUA
6. Peterson, G. Unlocking Land Values 2009 Cambridge University Press
7. Nishith Rai Urban Governance in India 2010 RCEUS
8. Dr. O. M. Mahala, Urban India: Emerging Challenges in Liberalized Era, 2011, Neha Publishers and Distributors
9. K.C. Siva Ramakrishnan, Growth in Urban India Issues of Governance, 2006, Centre for Policy Research
10. I.S.A Baud and Joop de wit, new forms of urban governance in India, 2009 SAGE India

(PCC2) Planning Practice and Ethics	
Teaching Scheme	Examination Schemes
Lectures: 3 Hrs/week	T1 and T2 - 20 Marks each
	End Sem- 60 Marks

Course Outcomes:

- CO1: Understand his position as a professional while working on different projects
CO2: Be able to comprehend his scope and services as a professional planner in Industry
CO3: Understand the various methods of Valuation of land
CO4: Be able to perform valuation of Real Estate properties
CO5: Be able to prepare various contract documents and methods to formulate a new project.

(6Hrs)

Unit 1: Role of Planner

Planner's role in decision making processes; Relationship with client, developers, institutions and other professionals

Unit 2: Professional Bodies and Responsibilities

(6Hrs)

Aims and objectives of professional institutes, sister bodies; Responsibilities towards clients, fellow professionals and general public

Unit 3: Planning Consultancy

(6Hrs)

Acquaintance with bidding process, safeguards etc; Formulation of project proposals, contract agreement; Structure of professional charges; Office procedure and management

Unit 4: Conflicts Resolution, Negotiation and Consensus Building

(6Hrs)

Nature of conflicts, pre-empting conflicts and conflict resolution measures; Instruments of negotiation; Information based and principal-based negotiation; Survey of court cases

Unit 5: Ethics in Planning Profession

(6Hrs)

Ethics in planning profession; Moral reasoning; Planning practice and ethical dilemmas and its resolution; Code of professional conduct

Reference Books:

1. Planning Legislation and ITPI, New Delhi Professional Practice, ITPI- New Delhi
2. Urban and Regional Planning in India, Kul Shrestha, S.K.: Handbook for Professional Practice, Sage Publications, New Delhi, 2012
3. Conditions of Engagement of Professional Services and Scale of Professional Fee and Charges, ITPI- New Delhi, 2011

4. Normative Ethics in Planning by E. How. *Journal of Planning Literature*, Vol.5, No.2, pp. 123-150.

(SBC4) Planning Thesis – II	
Teaching Scheme	Examination Schemes
Practical: 6 Hrs/week	Mid Sem – 50 marks
	End Sem- 50 Marks

Course Outcomes:

CO1: Learn to initiative actions on their own and work independently.

CO2: Learn application of knowledge acquired by them.

CO3: Verify their planning proficiency acquired during the course of program.

CO3: Develop competency to work in professional fields.

Unit 1: Field Surveys

Depending on the research topic, field surveys have to be designed and field work has to done after conducting appropriate sample surveys

Unit 2: Synthesis of Data and Information and Findings

Field data and information and literature search findings should be synthesized to make final arguments and identification of planning issues

Unit 3: Proposals and Recommendations

Final, specific planning proposals and recommendations should be made at various geographical levels. Proposals should directly emanate from analysis and should not be generalized. Thesis should contain a list of references as per international practice.

Reference Books

1. Brubaker, D.L. and Thesis and Dissertations: A -Thomas, R.M. Guide to Planning, Research and Writing.
2. Rowena Murray How to Write a thesis (3rd - Open University Press Edition)
3. F. Abdul Rahim Thesis Writing 2005 New Age International (P) Limited Publishers, New Delhi