

**PROPOSED NEW SCHEME AND SYLLABUS**

**OF  
POSTGRADUATE PROGRAMME**

**MASTER OF PLANNING  
(URBAN AND REGIONAL PLANNING)**

**(New Syllabus Proposed with effect from July 2013)**



**Department of Planning  
School of Planning and Architecture, Bhopal  
June 2013**

# **Master of Planning (Urban and Regional Planning)**

## **Introduction**

Master of Planning (Urban and Regional Planning) is offered by the Department of Planning as a two year post graduate programme. It was introduced in the institute in 2010 as the first post graduate programme in planning.

In India, growing needs of increasing population, coupled with a very fast pace of urbanization, is resulting in depletion of natural resources, polluted environments, stressed economic conditions and fragmenting social structure.

The rate of urbanization has increased manifold in recent years. It has been perceived that the urban problems, which have grown in recent years, cannot be handled in isolation but have direct correlation to the rural hinterland around. Issues related to urbanization thus need to be addressed holistically in the perspective of the region around. A study of resources and infrastructure of the region to provide a blueprint of balanced environmental and settlement system development is thus a priority in all institutes of planning.

The programme aims to address the complexities faced in the planning of settlements and develop innovative approaches to improving cities and regions. Emphasis has been laid on integrating theory and studio contents and application of theoretical inputs in the studio.

The existing course curriculum was imparted to the first two batches of students and revisions have been suggested based on the feedback of faculty, students and veteran academics, in an attempt to make the course more robust. Also the Department of Planning is introducing other specialisations at the post graduate level. A common framework of the scheme and assessment system across specialisations has been proposed to have uniformity in the structure of all the programmes.

The present proposed syllabus is developed in keeping with the objectives mentioned in the preceding section.

## **Admission Eligibility**

Minimum educational Qualification with 55% marks in aggregate in any one of the following disciplines need to be fulfilled for admission into the Master of Planning (Urban and Regional Planning) Programme :

B. Arch/B. Plan
B.E./B. Tech in Civil Engineering
M.Sc / M.A in Geography/ Economics / Sociology

Students shortlisted on the basis of above mentioned eligibility criteria are required to appear in an interview conducted by School of Planning and Architecture, Bhopal along with three letters of recommendation.

## Course Structure

The course is divided into four semesters. The first semester is common for all Master of Planning specializations, referred to as the 'Integrated Semester', in which the students will be taught basic foundation subjects to enhance their understanding of planning and to strengthen their analytical skills. Students will also be introduced to planning history, theories and thought and acquire skills to apply available tools & techniques of planning. Students from diverse backgrounds would get an opportunity to learn the fundamentals across disciplines and be brought to a common platform of understanding.

The Second and Third semesters deal with core subjects of Urban and Regional Planning. The structure of the syllabus has one core studio with various theoretical subjects providing appropriate base of knowledge and tools. The studio problems would address issues of regional and urban planning in consecutive semesters. The subject 'Thesis Programming' in third semester will orient students towards finalizing their research work of final semester. There are two sets of electives offered in the third semester.







There is an option for students to opt for Electives from a Common Pool of electives across all disciplines of planning and architecture to foster a multidisciplinary approach prevalent in the Institute. The subjects listed under 'Common Pool Elective' in this syllabus are those that the Urban and Regional planning programme would contribute to the pool. Students would however have a wider choice of electives not limited to those listed in this scheme.

In the fourth Semester, the thrust is primarily on Thesis being undertaken on any topic related to Urban and Regional Planning, having spatial implications on the natural and built environments. The fourth Semester also has two subjects of 'Seminar on Emerging Planning Concerns' and 'General Proficiency' which tries to evaluate the student's interest and involvement in the profession beyond the core curriculum. The final semester focuses on developing students as robust individuals contributing to the profession by assimilating and applying the learnings of the entire course.

### Summary of Course Structure

First Semester	Second Semester	Third Semester	Fourth Semester
Integrated Studio	Studio- I (Regional Planning)	Studio – II (Urban Planning)	Thesis
Planning History & Theory	Regional Planning and Development	Project Appraisal and Management	Elective II (2 subjects)
Housing and Environment	Planning Legislation	Disaster Mitigation and Management	Seminar
Economics and Urban Sociology	Local Governance, Management and Finance	Urban Design and Landscape	General Proficiency
Infrastructure Planning	Land Economics and Real Estate	Common Pool Elective	
Demography and Quantitative Methods	Transportation Planning and Management	Elective I (2 subjects)	
Planning Techniques	Geoinformatics Laboratory	Thesis Programming	
		Professional Training	

#### Legend

 Studio	 Theory	 Thesis
 Techniques	 Electives	 Comprehensive

## Assessment

The objective of the evaluation system is to critically assess the understanding of the discipline developed by the student through appropriate means of assessing the knowledge and skills developed by each individual student.

All Studio subjects would be assessed through continuous evaluation in every class, with emphasis being given to class participation. Intermediate reviews would be conducted at various stages of work with deliverables in the form of maps and other graphic aids and reports predefined as part of the studio brief distributed in the beginning of the semester.

All Theory subjects would be assessed through written exams and assignments. The system of two stages of Theory examinations would be taken for assessment of theoretical knowledge. Understanding of current issues related to course would be assessed through assignments to be submitted as reports and discussed in class presentations. Case studies would also be given as assignments to understand the methodology and process adopted to carry out projects. In addition to assignments, participation of students in class discussion would be recorded and evaluated time to time. Individual courses have the flexibility of designing appropriate exercises relevant to the subject and reflecting the objective of the course.

End Semester Evaluation is based on theory examinations, Viva-voce examinations or a combination of both depending on the requirement of the subject and specified in the scheme. Theory Examinations are of three hours duration in the End Semester Examinations.

## Evaluation Pattern

The performance of the student shall be evaluated through continuous assessment and it shall be based on minor examinations, class tests, intermediate reviews, assignments/ tutorials, quizzes/ viva voce, studio works, field works, home works, jury etc. and attendance.

- The end semester examination shall be conducted by means of written papers, practicals, jury and/or viva voce, design reports or a combination of these methods, as specified in the scheme of examination.
- For each subject the distribution of marks for assessment at different stages will be:

Stage 1 (5 weeks from the commencement of classes)	Stage 2 (10 weeks from the commencement of classes)	Attendance	Internal Assessment	End Semester Examination
15%	15%	5%	25%	40%

### Note:

- 1) In the subjects having written exam & viva- voce in the end semester exam percentage will be considered as 20% for written exam & 20% for viva-voce exam.
  - 2) The stages of marking adopted above will not be applicable for the subjects of professional training, and only one time evaluation at the end of the training period will be done. 40% of subject marks will be awarded by the employer in accordance to the institute format and 60% by the institute.
- All subjects carry number of credits as indicated in the scheme.
  - To earn the credits a student has to obtain a minimum of 45% marks in that respective subject.
  - It is compulsory for a candidate to appear in the end term examination.

**Scheme of Postgraduate Programme**  
**Master of Planning (Urban and Regional Planning)**

<b>First Year : First Semester (Integrated Semester)</b>					
<b>Subject Code</b>	<b>Subject</b>	<b>WCH</b>	<b>ESE Format</b>		<b>Credits</b>
MPLN0101	Integrated Planning Studio	12		VV	12
MPLN0102	Planning History and Theory	3	WR		3
MPLN0103	Housing & Environment	3	WR		3
MPLN0104	Economics & Urban Sociology	3	WR		3
MPLN0105	Demography & Quantitative Methods	3	WR		3
MPLN0106	Infrastructure Planning	3	WR		3
MPLN0107	Planning Techniques	3	WR	VV	3
	<b>Total</b>	<b>30</b>			<b>30</b>

WCH- WEEKLY CONTACT HOURS    ESE- END SEMESTER EXAMINATION    VV- VIVA- VOCE    WR-WRITTEN EXAM

<b>First Year : Second Semester</b>					
<b>Subject Code</b>	<b>Subject</b>	<b>WCH</b>	<b>ESE Format</b>		<b>Credits</b>
MPUR0201	Planning Studio- I (Regional Planning)	12		VV	12
MPUR0202	Regional Planning and Development	3	WR		3
MPUR0203	Planning Legislation	3	WR		3
MPUR0204	Local Governance, Management and Finance	3	WR		3
MPUR0205	Land Economics and Real Estate	3	WR		3
MPUR0206	Transportation Planning and Management	3	WR		3
MPUR0207	Geoinformatics Lab	3	WR	VV	3
	<b>Total</b>	<b>30</b>			<b>30</b>

WCH- WEEKLY CONTACT HOURS    ESE- END SEMESTER EXAMINATION    VV- VIVA- VOCE    WR-WRITTEN EXAM

Second Year : Third Semester					
Subject Code	Subject	WCH	ESE Format		Credits
MPUR0301	Planning Studio- II (Urban Planning)	12		VV	12
MPUR0302	Common Pool Elective	3	WR		3
A	Urban Redevelopment				
B	Planning for Tourism				
C	Quantitative Methods and Systems Analysis				
MPUR0303	Elective I	3	WR		3
A	Planning for Special Areas				
B	Sustainable Planning Practices				
MPUR0304	Project Appraisal and Management	3	WR		3
MPUR0305	Disaster Mitigation and Management	2	WR		2
MPUR0306	Urban Design and Landscape	3	WR	VV	3
MPUR0307	Thesis Programming	2		VV	2
MPUR0308	Professional Training (Summer)	2		VV	2
	<b>Total</b>	<b>30</b>			<b>30</b>

WCH- WEEKLY CONTACT HOURS ESE- END SEMESTER EXAMINATION VV- VIVA- VOCE WR-WRITTEN EXAM

Second Year : Fourth Semester					
Subject Code	Subject	WCH	ESE Format		Credits
MPUR0401	Thesis	22		VV	22
MPUR0402	Elective II	3	WR		3
A	PPP in Development				
B	Public Policy Analysis				
MPUR0403	Seminar on Emerging Planning Concerns	4		VV	4
MPUR0404	General Proficiency*	1		VV	1
	<b>Total</b>	<b>30</b>			<b>30</b>

\*For General Proficiency, there will be an internal assessment of 15 marks each at the end of Second and Third Semesters followed by the End semester Viva Voce at the end of fourth semester. The subject marking will be accounted for in the Fourth semester only.

WCH- WEEKLY CONTACT HOURS ESE- END SEMESTER EXAMINATION VV- VIVA- VOCE WR-WRITTEN EXAM

## FIRST YEAR: FIRST SEMESTER

### **MPLN0101: Integrated Planning Studio**

#### **Course Objective:**

The Integrated studio is the introductory studio common to all specializations of Master of Planning. It aims to bring students of diverse backgrounds to a common platform and develop the essential skills of planning amongst the students opting for different specializations of planning.

The objective of the studio is to introduce the general concepts associated with physical planning and develop the skills of documentation, data analysis, spatial representation and written and verbal communication. Application of the theoretical inputs provided in other subjects in the semester is also a key focus. Technical report writing, data analysis techniques and verbal and visual presentation techniques would be focused on in all the assignments.

#### **Course Contents:**

The thrust of the studio would broadly address the concepts of both urban and rural planning and integration of the city and region.

The studio would consist of three assignments:

- *Assignment 1: Understanding Human Settlement Systems*

The assignment would be a short introductory exercise undertaken with the objective of initiating students with the concepts of urban and regional planning by developing skills of observation and documenting the same in graphical ways.

The thrust of the studio would be on:

- Understanding the context of the city in its regional setting
- Readings on the city and settlement systems
- Understanding the structure of networks and land uses
- City form and its visual impact.
- Identification of landmarks and public realms.
- Application of appropriate techniques of documentation and presentation of the data collected.

- *Assignment 2: Area Planning in Urban Areas:*

The assignment would identify different urban zones based on land use characteristics and could also include predefined 'zones' for zonal plans. The objective of this exercise would be to learn various methods of surveying to collect different types of data and represent and interpret them to give meaningful observations on the planning and development of the area.

Thrust of the exercise would be on:

- Understanding the zone in the context of the city.
- Mapping of Regional Networks and Linkages
- Preparation of Base Map of the area through primary surveys and updating secondary data
- Socio-economic profiling of the area through surveys
- Physical and Social infrastructure mapping
- Gap Analysis and issue identification
- Formulation of broad outlines of Intervention Strategies and Development Blueprint.

- *Assignment 3: Rural Planning*

The main goal of the assignment is to expose students to the life and living in rural area as it is different from urban areas. This would help in conceptualising the integration of urban and rural areas for regional planning.

Students will undertake study of a particular village in groups and conduct a primary survey on demographic profile, household income level, socio-cultural practices, etc. Information about development programmes shall be collected and resource mapping will be done. This exercise will aim at improving the understanding about the requirements of different

categories of rural population. Conducting the primary survey will provide exposure to research methodology, techniques of data collection, data processing and analysis.

Thrust of the exercise would be on:

- Understanding the socio-economic aspects of the rural settlement
- Importance of location, spatial and economic linkages of the village.
- Explaining the social and physical infrastructure of the village.
- Understanding the availability and usage of local resources.
- Exposure to government programmes and institutional mechanism working for rural planning and development
- Identifying the present problems and future possibilities in the village.
- Proposing a strategy of improvement in the condition and development of the villages.

## **MPLN0102: Planning History and Theory**

### **Course Objective:**

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

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

### **Course Contents:**

The course would include the following broad areas of planning knowledge:

- Relevance of the Subject: Settlement Formation and Growth as a Response to Social, Economic, Religious, Political and Cultural Needs. Need for Civic Planning
- The City in History: Settlements in Different Civilizations. Overview of City Planning in Mesopotamian, Egyptian, Greek and Roman Civilizations. Renaissance and Its Impact on City Form and Structure.
- Town Planning Thought and Principles in Ancient and Medieval India
- Industrial Revolution: Post Industrial Revolution Settlement Planning: Impact of Industrial Revolution on City Form, Population Density and Infrastructure Breakdown. Birth of Civic City Planning
- Classical Concepts of City Form- Concepts of Garden City, City Beautiful, Linear City and others. Contribution to Modern City Planning by Lewis Mumford, Patrick Geddes, Peter Hall, Jane Jacobs, Chadwick and others
- Theories of Urban Structure and Land Use- Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory, Land Use and Land Value Theory etc.
- Theories of Settlement Systems in Regional Context -Spatial Models of Location, Size and Spacing of Settlements; Rank Size Rule; Central Place Theory; Loschian Theory; Cumulative Causation Theory; Core Periphery Model; Growth Poles and Centres; Gravity Model; Classification of Settlements
- Models of Planning: Pluralism in Planning; Systems. Approach to Planning: Rationalistic and Incremental Approaches, Mixed Scanning, Advocacy Planning and Action Planning, Equity Planning
- Types of Plans: Master Plan, Development Plan, Structure Plan, Strategic Plan, Sectoral Plan, Zonal Plan, Local Area Plan, Action Area Plan Etc.
- City-Region Relationship: Structure of City Regions, Area of Influence, Dominance; Rural-Urban Fringes; Metropolitan Region; Socio-Economic Impacts of Growth of Urban Areas; Push and Pull Factors; Rural-Urban Migration; Location of New Regional Economic Activities; Impact of Technology on Urban Forms; Transportation and Urban Form; Other Emerging Issues in Planning



**Suggested Readings:**

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

**MPLN0103: Housing and Environment****Course Objective:**

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

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

**Environment:**

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

**Course Contents:****Housing:**

- Introduction to Housing- Housing and Urbanization; Significance of Housing in National Development Goals; Current Issues in Housing: Health and Safety Related Issues in Housing, Shift of Housing from Social Sector to Private Sector Participation
- Housing Design - Housing Typology, Housing Layouts, Housing Density, Community Facilities, Public and Private Sector Housing Development, Social Aspects of Housing, Built Environment and Human Behavior, Housing Norms and Standards
- Housing for the Poor- Issues in Slums and Squatter Settlements; Government Initiatives for Providing Housing
- Housing Demand- Housing Need Assessment, Estimating and Forecasting Housing Requirements (Qualitatively and Quantitatively); Understanding Current Methods of Housing Demand Assessment
- Affordable Housing- Household Affordability, Concept of Affordable Housing, Affordable Housing in India, Affordable Housing Policy 2009, Affordable Housing in Public Private Participation, Emerging thoughts
- Housing Policy- Understanding Five Year Plans, National Housing Policy- Review, Policy Framework for Urban and Rural Housing, Comparative Policy Analysis
- Rental Housing in India: An Overview, Current Practices and Upcoming Initiatives.
- Poverty and Informal Sector: Poverty and Poor Settlements – Definition, Dimensions, Deprivation, Measurement, Defining Parameters, Absolute and Relative Poverty; Magnitude of Problem; Concern for Poverty; Spontaneous Growth of Settlements; Perspective of Slums and Squatters; Functions in Urban Context; Squatter Formations by

Illegal Occupation; Migratory Impulses and their Association with Growth of Informal Sector; Socio-Economic Deprivation and Environmental Degradation; Development of Informal Sector; Role of Informal Sector in Housing Stock, Economy, Commercial Activities, Etc.; Implications in Physical Planning

- Informal Sector Housing and Basic Needs - Lack of Essential Infrastructure; Poor Condition of Existing Services; Identification of Basic Needs; Provision for Various Target Groups; Standards for Basic Needs; Investment for Housing; Essential Components; Ownership and Tenure Security; Service Delivery - Gaps in Existing Institutional Systems of Delivery

### **Environment**

- Man and Environment - Changing Perspectives in Man-Environment Relationship with Focus on Issues of Population, Urbanization, Resource Depletion and Pollution
- Concept of Ecology; Fundamentals of Ecosystem—Its Structure and Function
- Environmental Degradation (Environmental Concerns and Challenges) and Its Impact on Various Ecosystems
- Planning for Environmentally Sensitive Zones (Resources Availability, Settlements Pattern, Problems and Potentials, Regulating Mechanisms for Development)
- Tools and Techniques for Environmental Planning and Management- Introduction to Environmental Impact Assessment, Strategic Environment Assessment and Environmental Management Plans
- Environmental Policies and Initiatives Including Policies, Strategies, Protocols, Treaties
- Sustainable Development (Concept and Methods)

### **Suggested Readings:**

#### **Housing**

1. Housing : Changing Needs and New Directions, V. Gandotra, M. Shukul, N. Jaju and N. Jaiswal, Authors press
2. Housing and Urbanisation- A study of India, Cedric Pugh, Sage Publications, New Delhi
3. Housing Laws in India- Problems and Remedies, P.K.Sarkar , Eastern Law House Private Ltd.
4. National Housing Policy, GOI, New delhi
5. Reading Material on Housing, K. Thomas Poullose, ITPI, India
6. Understanding Housing Policy, Brain Lund, The Policy Press, Great Britain
7. Urban Development and Housing in India- 1947 to 2007, Rishi Muni Dwivedi, New Century Publications
8. Housing Policies and Related Acts and Schemes of Government of India
9. Holding Their Ground: Secure Land Tenure for the Urban Poor in Developing Countries, Durand-Lasserve, Royston L, Earthscan Publication, UK
10. Plotting, Squatting, Public Purpose and Politics, Land Market Development, Low Income Housing and Public Intervention in India, Baken, Robert Jan, King's SOAS Studies in Development Geography
11. Shadow Cities: A Billion Squatters, a New Urban World, Neuwirth, Robert Taylor & Francis Group
12. The Urban Housing Manual: Making Regulatory Frameworks Work for the Poor, Payne, Geoffrey and Majale, Michael, Earthscan Publication, UK

#### **Environment:**

1. Fundamentals of Ecology, Odum, E.P., Barrett, G.W., Brewer, R., Thomson Brooks,
2. Ecology, Impact Assessment and Environmental Planning, Westman W., John Wiley and Sons
3. Integrated Environmental Planning, James K. Lein, Blackwell Publishing
4. AITP Reader on Ecology & Resource Development, AITP
5. AITP Reading Material on Environmental Planning and Design, Prof A. K. Maitra , SPA Delhi

6. Ecology and Equity - The Use and Abuse of Nature in Contemporary India, Gadgil, M. and Guha, R., Penguin
7. Environment and Development : The Place of Human Ecology in South Asian Studies Programme, Rambo, T.
8. Environment Crisis and Sustainable Development, Bahuguna, S., Natraj, Dehradun,
9. Environmental Issues and Researches in India, Agarwal, S.K. and Garg, R.K (eds), Himanshu Publications
10. Environmental Law and Policy in India - Cases Materials and Statutes, Divan, S. and Rosencranz A., Oxford
11. Environmental Problems in Third World Cities, Hardoy, J.E., Mitlin, D., and Satterthwaite, D., Earthscan
12. Our Common Future: The World Commission on Environment and Development, Oxford University Press, Oxford, New York

## **MPLN0104 : Economics and Urban Sociology**

### **Course Objective:**

The course consists of two parts of Economics and Urban sociology, as essential inputs to the Planning profession.

### **Economics:**

The objective of the course in Economics is to apprise students of the theoretical underpinnings in economics so as to enable them comprehend urban problems from the point of view of economic reasoning. The course is of an introductory level enabling students to acquire a fair amount of economic reasoning to analyse urban issues and would focus primarily on applications in the planning profession.

### **Urban Sociology:**

The primary objective of the course in Urban Sociology is to train the students in the sociological study of life and human interaction. The course is so designed as to enable the students follow the sociological interpretations of the structures, processes, changes and problems of an urban area and by doing so providing inputs for planning and policy making. Thus the overarching objective of the course shall be to educate students about the nature and changing character of the city and the urban experience - including the larger social, political, and economic dynamics of urban change - so as to provide a more nuanced appreciation of the contemporary, comparative, and historical context in which urban planning skills and sensibilities have been developed and could be applied.

### **Course Contents:**

#### **Economics:**

The following contents included in the course would be delivered with focus on linking the theoretical aspects with applications in planning, and the problems and assignments would focus specifically on these.

- Twin Themes of Economics – Scarcity and Efficiency; Market, Functions and Equilibrium; Micro v/s Macro Economics, Positive v/s Normative Economics
- Laws of Demand and Supply; Market Demand and Supply; Equilibrium in the Market
- Elasticity of Demand and Supply; Price, Income and Cross Elasticity
- Average, Marginal and Total Costs and Revenue; Derivation of Revenue and Cost Curves; Producers Surplus and Consumer Surplus
- Market and Types of Market, Product Pricing (Average Cost and Marginal Costs Principle); Factor Pricing (Marginal Productivity Theory)
- Resource Categories; Land and Returns to Land, Taxing Land and Rents; Environmental Externalities; Market Inefficiency with Externalities; Corrective Policies; Climate Change
- Measurement of Economic Activities, Basic Economic Growth Models (concept only), Human Development Index
- (Tools of economics, namely, input – output technique, game theory and linear programming shall be introduced to the students conceptually)

## Urban Sociology

- Industrial Revolution and the Birth of Urban Sociology; Economic, Social and Cultural Processes of Urbanization and its Effects on Social Alienation, Class Formation and the Production or Destruction of Collective and Individual Identities; Theories of Karl Marx, Émile Durkheim, Max Weber and Georg Simmel
- Human ecology, Urbanism and Urban Sociology; The Chicago School; Elitism and Power of Place;
- Indological (Ghurye); Structural-Functional (M. N. Srinivas); Dialectical (D. P. Mukherji, A. R. Desai); Subaltern (R. Guha); Non Brahmin (Phule, Dr. Babasaheb Ambedkar); Feminist (Neera Desai, Leela Dube)
- Urban Enclaves and Ghettos; Fear and Disorder; Gentrification; Integration and Segregation; Race and Ethnicity; Sociology of Gender; Urban Crime; Poverty and Homelessness; Immigration and Migration; Sociological Impact of Globalisation
- Inclusive Cities- Overview - Definition, Concepts, Elements of Inclusivity; Exclusion and Related Issues, Disparities, Social Fragmentation, Existing Divisiveness; Need for Inclusion of the Disadvantaged, Marginalized and other Weak and Vulnerable Social Groups.
- Disparities and Equal Opportunities: *Disparities* – Gender, Race, Religion, Social Disparities; *Gender* – Gender Discrimination; Feminist Planning Theory; *Caste and Religion* – Characteristics, Disadvantaged Castes and Ethnic Minorities; *Special Needs* – Lack of Supportive Assistance, Issues; Assessing Specific and Special Needs; Planning and Designing for the Differently Aabled, Elderly, Children, and Pregnant Women; Planning Rights and Responsibilities; Provision of Equal Opportunities; Social Sustenance; Exploring Emerging Relevant Concepts and Monitoring Systems

## Suggested Readings:

### Economics:

1. Economics, Paul A. Samuelson et al, Tata Mc Graw Hill Publication
2. Micro Economics, Dominick Salvatore, Schaum's Outline Series, Mc Graw Hill
3. Micro Economics, N.C. Ray, Macmillan
4. Micro Economics, Anindya Sen, Oxford University Press
5. Economics, Alec Chrystal et al, Oxford University Press
6. Economics – An Analytical Introduction, Amos Witztum, Oxford University Press
7. General Economics, Deepashree, Tata Mc Graw Hill Publication
8. Economics – A Primer for India, G. Omkarnath, Orient Blackswan

## Urban Sociology

1. Sociology, Anthony Giddens, Wiley
2. Sociology, John J. Macionis, Pearson
3. Urban Sociology : Images and Structure, Flanagan, William G., Prentice Hall
4. Urban Problems in Sociological Perspective, Shannon, Thomas R., Waveland Press Inc
5. The Metropolis and Mental Life, Simmel, Georg, New York: Free Press
6. Key Concepts in Urban Studies, M. Gottdiener, Sage London
7. Sociological Thought, Abraham M. F. and Morgan J. H., MacMillan India, Madras
8. The Oxford Companion to Sociology and Social Anthropology, Das Veena, Vol. I and II, OUP, New Delhi
9. Social Change in Modern India, Srinivas M. N., Oxford University Press, Delhi.
10. A Subaltern Studies Reader, Guha R., Oxford University Press, New Delhi
11. The Sage Handbook of Sociology, Bryn Turner et al, Sage
12. Capability and Well-Being, Sen, Amartya and M. Nussbaum. Oxford Clarendon Press
13. Inclusive Growth In India, R.U. Singh A.K. Thakur, Deep and Deep Publications
14. Sen's Capability Approach and Gender Inequality: Selecting Relevant Capabilities. Feminist Economics Robeyns, Ingrid
15. Planning a Barrier Free Environment, Office of the Chief Commissioner for Persons with Disabilities, India

## **MPLN0105 : Demography and Quantitative Methods**

### **Course Objective:**

The course consists of two parts of Demography and Statistics, dealing with each independently and as well as connecting the applications of statistics to demography.

### **Demography**

The objective of the course on Demography is to provide the students with an understanding of basic concepts on demography. This course would make the students aware of the importance of population geography in economic development, the various theories that explain the growth of population in a country and demographic techniques applied. The course aims to help students identify appropriate sources of data, perform basic demographic analyses using various techniques and ensure their comparability across populations. The student will also be able to produce population projections and interpret the information gathered by the different demographic methods.

### **Quantitative Methods**

The emphasis of the course on Statistics shall be on conceptual underpinnings of statistics with a focus on defining different statistical tools indispensable for urban planning. In view of the course according more emphasis on inferential statistics than descriptive statistics, the objective of the course will be to introduce the most useful and commonly employed statistical tools and discuss the conditions under which use of those tools is appropriate. The course has been so designed as to train the students interpret the results of an analysis to provide insight into the answer to the problem at hand. Use of appropriate statistical analysis softwares is also included in the course.

### **Course Contents:**

#### **Demography**

- Distribution and Density of Population - Measures of Population Distribution and Concentration; Factors Affecting Population Distribution and Density; World Population Distribution; Density Distribution in India
- Population Change - Fertility and Its Measures; Mortality and Its Measures; Mobility; Factors Affecting Population Change; Determinants of Fertility and Mortality; Demographic Transition Theory; Some Population Theories (Overview only)
- Migration - Types of Migration; Determinants of Migration; Migration Models
- Population Composition - Age and Sex Composition and Its Determinants; Age Pyramids; Working Force and Its Determinants; Composition of Work Force and Occupational Composition
- Population Projections – Assumptions, Methods, Techniques.

#### **Quantitative Methods**

- Measures of Central Tendency and Dispersion - Arithmetic Mean; Weighted Mean; Geometric and Harmonic Mean; Median and Mode; Variance and Standard Deviation
- Time Series and Forecasting - Trend Analysis - Cyclical Variation, Seasonal Variation, Irregular Variation; Various Methods in Time Series Analysis – Moving Average, Ratio to Trend, Link Relative and Residual
- Factor Analysis - Principal Component Analysis
- Probability Distribution and Sampling Distribution - Use of Expected Value in Decision Making; Binomial, Poisson and Normal Distribution (only application); Determination of Sample Size and Types of Sampling; Sampling Distribution (concept only); Design of Experiments (concept only)
- Correlation and Regression - Two Variable versus Multiple Linear Regression; Simple and Multiple Correlation; Estimation of Parameters – The Method of Ordinary Least Squares; Hypothesis Testing, Goodness of Fit

- Use of Software for Analyzing Data; Applications of Features of Excel for statistical analysis; Introduction to other Statistical Analysis Software.

### **Suggested Readings:**

#### **Demography**

1. Demography, Peter R. Cox, Cambridge University Press
2. Studies in Demography, S.C. Srivastava et al, Anmol Publishers
3. Introduction to Applied Demography: Data Sources and Estimation Technique, William J Seraw, Sage Publishers
4. Patterns of Migration in the National Capital Region, National Institute of Urban Affairs (NIUA), New Delhi
5. India's Population Problems, S.N. Agarwal, Tata McGraw Hill Co., Bombay
6. Principles of Demography, D.J. Bogue, John Wiley, New York
7. Population Policy in India, P.K. Choubey, Kanishka Publications, New Delhi
8. An Econometric Study of a Metropolis, S.C. Gulati, Sage, New Delhi
9. Fundamentals of Demography, P.K. Majumdar, Rawat Publishers
10. Methods and Models in Demography, Colin Newell, Guilford Publications

#### **Quantitative Methods**

1. Statistics for Management, Richard I. Levin et al, Pearson
2. Econometrics Damodar Gujarati Tata Mc Graw Hill
3. Quantitative Methods: Theory and Applications, J.K. Sharma, Macmillan
4. Quantitative Methods for Business, Management and Finance, Swiff, Palgrave
5. Statistics, Larry J. Stephens, Tata McGraw Hill
6. Quantitative Techniques in Geography – An Introduction, Robert Hammond et al, Oxford University Press
7. Applied Statistics, P.K. Majumdar, Rawat Publications
8. The R Book, M.I. Crawley, John Wiley and Sons
9. Data Analysis and Statistics for Geography, Environmental Science, and Engineering, Acevedo M.F CRC Press

### **MPLN0106: Infrastructure Planning**

#### **Course Objective:**

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

#### **Utility Networks Planning**

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

#### **Transportation Planning**

The objective of Transportation Planning is to provide basic information on transportation issues. Students will be familiarized with (i) geometric design of road networks and (ii) traffic characteristics. Techniques of data collection and analysis would be taught as part of this course.

#### **Course Contents:**

##### **Utility Networks Planning**

- Role of Physical Planner in Planning of Utilities and Services Networks; Objectives of Utilities and Services Planning and Its Implications for Public Health and Environmental Protection; Familiarizing to CPHEEO Manual and Guidance
- Water Supply Systems and networks- Surface and Ground Water Sources, Quality and Quantity Requirements, Collection and Conveyance of Water; Water Requirement for Various Land Uses; Factors Affecting Water Demand; Calculation of Per Capita Requirement; Water Distribution Systems; Case Study Discussion on Innovative Methods

and Successful Urban Water Supply System; Significance and Methods and Advantages of Water Harvesting System

- Storm Water Drainage Networks- Layout and Design of Storm Water System; General Considerations, Inlets, Self-Cleansing Velocity, Non-Scouring Velocity, Physical Layout, Design Principles, Data Requirement; Principles of Design of Storm Water Drainage System
- Sanitation and Sewer System - Sewage Disposal Methods and their Advantages and Disadvantages; calculations of Quantity of Sewage; Principles of design of Sanitary Sewer System Network; Case Study of Innovative Approaches of Sewage Disposal in Urban Area; Low Cost Appropriate Technologies for Sanitation; Characteristics of Waste Water, Industrial Pollutants and their Effects
- Solid Waste Management - Elements of Solid Waste Management, Classification and Characteristics of Solid Wastes; On Site Collection, Storage, Transportation and Disposal of Solid Wastes; Processing and Treatment of Solid Wastes; Land Filling and Cost Aspects of Different Methods of Solid Waste Management; Solid Waste Management Issues in Indian Cities
- Power Supply – Sources of Electricity; Transmission, Distribution and Supply; Sustainable Energy Planning;
- Telecommunications – Introduction to Planning and Programming Approaches for Telecommunication Infrastructure and Network Systems; Environmental, Social and Economic Impacts of Telecommunication Infrastructure
- Fire Fighting Services - Planning for Fire Protection Services and Space Standards; Locational Criteria, Implications on Land Use and Density

### **Transportation Planning**

- Overview of Transportation Systems, Modes, Design and Operating Characteristics
- Classification of Roads, Road Networks and Hierarchy; Road Geometries and Road Components; Design and Preparation of Layout for Road Intersections, Rotaries and Signalized Intersections
- Traffic Volume, Origin Destination, Spot Speed, Speed and Delay
- Traffic and Transportation Surveys- Study Area Definitions, Surveys and their Types, Sampling of Travel Methods, Survey Techniques
- Parking and Pedestrian Issues
- Basis of Regional Network of Roads; Characteristics of National, State and District Highways; By-Pass Design Factors of Highways through Towns
- Introduction to basics concepts of Trip Generation, Distribution and Assignment
- Traffic Management- Existing Organizational and Legal Framework; Traffic and Environmental Management Techniques; Review of the Existing Traffic Management Schemes in Case Cities

### **Suggested Readings:**

#### **Utility Networks Planning**

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

## **Transportation Planning**

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

## **MPLN0107: Planning Techniques**

### **Course Objective:**

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

### **Course Contents:**

- Basic Terminology; Classification of Cities; City Region; Spheres of Influence, Urban Rural Fringe; Internal Structure of Urban Areas; Density Patterns; Land Use Classification and Coding
- Base map Preparation: Representation of Spatial Data; Choice of Appropriate Scales: Graphical, Linear and Areal Scales; Contents of Base Maps at Various Scales; Notations - Basic Disciplines of Maps;
- Socio-Economic Surveys: Data Requirements for Urban and Regional Planning; Sources of Primary and Secondary Data; Questionnaire Design, Measurement Scale and their Application; Sampling Techniques; Types of Socio-Economic Surveys
- Techniques of Conducting Surveys for Land Use, Building Use, Density, Structural Condition of Buildings, Heights of Building, Land Utilization and Physical Features of Land; Techniques for Conducting Regional Surveys; Regional Delineation Techniques: Factor Analysis, Cluster Analysis; Row Analysis; Case Studies in Regional Delineation
- 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: Residential and Non-Residential Density Patterns and Analysis
- 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.
- Computer Applications for Data Collection and Analysis: Tools of Analyzing Different Types of Data; Use of Excel Software for Analyzing Data; Applications of Features of Excel- Basic and Selected Advanced Features;
- CAD Applications for Base Map preparation: Recapitulation of CAD tools- drawing, editing, modifying, layer management etc.; Scaling Drawings and Images; Plotting and Printing;
- **Introduction to Geoinformatics**
- Raster Data Capture: Types of Platforms: Space Bourne - Resource Satellite, Swath, Sensing Capabilities; Air Bourne – Aerial Photography; Ground Bourne – Digital Survey; Multi-Return Concept - Spectral Signature
- Raster Data Processing and Analysis: Image Interpretation – Qualitative and Quantitative Elements; Resolutions – Spatial, Temporal, Spectral, Radiometric; Geo-Rectification – Coordinate System, Datums, Geo-Referencing and Map Projections; Geometric Distortions, Image Enhancement, Transformation, Segmentation;



- Data Creation: Thematic Model, Vector Data Features, Map Preparation – Digitization; Non-Spatial Data – Database Creation; Integration of Spatial and Non-Spatial Data; Data Query
- Data Analysis: Buffers, Overlay, Proximity, Network Analysis; 3D Terrain Modelling– Triangulated Irregular Network.
- Data Presentation: Layout Preparation – Grids, Legend, Symbology; Printing – Sheet Size, Scale.

**Suggested Readings:**

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

## **FIRST YEAR: SECOND SEMESTER**

### **MPUR0201: Planning Studio-I (Regional Planning)**

#### **Course Objective:**

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

#### **Course Contents:**

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

### **MPUR0202: Regional Planning and Development**

#### **Course Objective:**

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

#### **Course Contents:**

- Concept of Region: Region Types and Regionalization; Concept of Regional Planning: Nature, Objectives, Levels and Aims
- Elements of Settlement System: Function, Spacing, Linkage, Settlement Pattern and Factors Responsible Thereof; Potentials and Centrality of Settlements
- Regional Inequalities – Growth, Density and Spatial Inequalities of Population Distribution, Spatial Patterns and Characteristics of Occupational Types; Regional Planning Policies and Its Relevance
- Introduction to Economic and Regional Growth Processes: Some Approaches of Rostow, Hirschman, Myrdal, Friedman, Haggerstand; Concept of Growth Centres, Growth Pole, Service Centre and Agro-Politan District and their Application in India
- Regional Development Strategies: Centralized and Decentralized; Regional Planning Process: Location of New Regional Economic Activities; Tools and Techniques of Regional Analysis;
- Metropolitan Regions- : Concept of Degree of Primacy, Area of Influence, Service Area; City Regions and Delineation Techniques; Centralization and Decentralization Processes; Concepts of Ring and Satellite Towns, Counter-Magnets; Forms and Concepts for Metropolitan Planning and Development
- District Planning Process: Identification of Plan Objectives; Collection, Classification and Analysis of Data; Norms and Standards for District Planning; Components of District Planning in the Context of 73rd CAA, 1992, Planning Process Under District Planning Committee, Metropolitan Planning Committee; Plan Implementation: Five Year Plans and Rural Development; Planning Process, Policies and Programmes at National, State,

Regional and District Levels; Planning, Development, Implementing and Monitoring Organizations and Agencies: National and State

- Concepts of Rural Area and Rural Development; Scope of Rural Development; Causes of Rural Backwardness; Historical Evolution of Rural Development and Rural Settlement Pattern in Indian Context; Economic Issues of Rural Development - Differentiating Economic Growth and Economic Development; Rural Jobs and Income Sources; Rural Economic Policy
- Infrastructure and Plan Implementation; Tools and Constraints in the Implementation of Plans in Terms of Administration; Schemes, Programmes, Policies for development of regions, districts, villages and cities; Selected Case Studies in Indian Context;

### **Suggested Readings:**

1. Regional Planning – Concepts, Techniques, Policies and Case Studies, Misra, R.P., New Delhi
2. Regional Development Planning in India, R.P Mishra, Vikas, Delhi.
3. Regional Planning and Development, Qaiyum, A., ITPI, New Delhi
4. Regional Planning and Development, Rangasamy, S., Madurai
5. An Introduction to Regional Planning – Concept, Theory and Practice, Glasson, John: Sussex
6. Gol: Ministry of Rural Development, Department of Land Resource, Desert Development Programme, New Delhi
7. Gol: Planning Commission, Report on Development of Drought Prone Areas by National Committee on the Development of Backward Areas, New Delhi
8. Gol: IWMP, Ministry of Rural Development, New Delhi  
Gol: Ministry of Development of North Eastern Region, New Delhi
9. Small and Medium Towns and Their Role in Regional Development, H.S. Yadav et al, Gyan Publishing House
10. The Role of Intermediate Towns in Regional Development : A Case Study, National Institute of Urban Affairs (NIUA), NIUA, New Delhi
11. Planning Development for Metropolitan Region, K K Pandey, IIPA
12. Rural Development, Jain S.C.
13. Rural Development through Decentralization, Kumar B Das.
14. Rural Development in India - Poverty and Development, Venkata Reddy K
15. Rural Development, Principles, Policies and Management, Katar Singh, Sage, New Delhi
16. Readings Material on Village Planning and Rural Development, H.B Singh, ITPI, New Delhi
17. District Planning: A Handbook, R.P. Mishra. Concept Publishing House, New Delhi

### **MPUR0203: Planning Legislation**

#### **Course Objective:**

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

#### **Course Contents:**

- The Meaning, Significance and Objectives of Planning Legislation; Constitutional Basis and Provisions Relating to Land, Its Development and Use
- Evolution of Planning Legislation in India; Overview of Legal Tools for Urban Planning & Development (Town and Country Planning Act, Improvement Trust and Development Authorities Act Etc.)for any State
- Preparation and Implementation of Regional Plans, Development Plans, Town Planning Schemes, Area Plans Etc. (Legislation thereof)

- Legislation for Land Acquisition and Land Ownership Including Rural and Urban Land Ceiling Acts and Their Implications on Development.
- Legislation on Conservation of Natural Resources and Heritage Building: Mining and Forestry Acts, Conservation and Management of Ancient Monuments and Archaeological Sites and Ruins Act
- Overview of Development Control Regulations- Zoning, Sub-Division Regulations, Building Regulations and Bye Laws; Apartment Ownership Act
- Water Bodies Conservation Act; Environment Protection Act;
- 73<sup>rd</sup> and 74<sup>th</sup> Constitution Amendment Acts and other relevant acts e.g. Nagar Raj Act; Model Municipal Act

### **Suggested Readings:**

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

## **MPUR0204: Local Governance, Management and Finance**

### **Course Objectives:**

The primary purpose of this course is to apprise the students of the local governance framework at sub provincial level and resource mapping of local governments with special emphasis on municipal governments in our country. The course intends to acquaint the students with the governance structure and fiscal and financial background of the local governments and tools and techniques to strengthen them. The course would include Constitutional Provision for Local Finance, Municipal Finance, Innovations in Local Resource mobilisation and Local Government fiscal regime.

### **Course Content:**

- Democracy and Decentralisation: Evolution of Local Self Government: Democracy in Governance: Shift from Representative Democracy to Participatory Democracy; Decentralisation of Governance; Evolution of local self Government – Principles of Subsidiarity, Complementarity and Equity; Local Governance Framework
- Local Governance: Institutional Framework: Reinstatement of Panchayati Raj Institutions and Urban Governance Institutions: Constitutional Sanction; Salient Features of 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendment Act, 1992; Constitution, Powers and Functions of Municipal Governments and PRIs (Village Panchayat and Zila Parishad)
- Innovations in Local Governance: Indicators of Good Governance: Formulation of Governance Index; Citizens' Charter; Citizens' Participation in Urban Governance: Institutional and Legal Framework; Ward/Wards Committee; Nagar Raj Act: Constitution, Powers and Functions of Area Sabhas; e municipal Governance; Performance Evaluation of Local Governments: Introduction of Report Card System; Service Level Benchmarking; Globalisation and Its Impact on Urban Settlements; Corporatization and Regulatory Regime for Urban Services
- Local Governance Reforms: Administrative Reforms in Local Governance: Better Human Resource Management; Expenditure Planning, Rightsizing and Outsourcing; Introduction of VRS; Performance Auditing of Municipal Staff

Structural Reform in Local Governance: Organisational Restructuring of Local Governments: Task Based Municipal Cadre; Capacity Building of Local Government Institutions; Inter Municipality and Municipality – CBO/NGO Partnership; Simplification of Procedures

- Parastatal Agencies: Role of Improvement Trusts, Development Authorities, SEZs and Special Purpose Vehicles in Urban Management; Interagency Cooperation
- Behavioural Orientation for Governance: Team Building and Leadership; Conflict Management; Change Management, Stress Management
- Constitutional Provision for Local Finance: Principle of Fiscal Federalism – Inter Governmental Fiscal Transfer; Constitution, Powers and Functions of Central Finance Commission (CFC) and State Finance Commission (SFC); Analysis of Current CFC and SFC (any one State) Report; Consolidated Fund (Central and State); Centrally Sponsored Schemes related to Urban/Rural Physical Planning and related sectors
- Municipal Finance: Plan and Non Plan Financing (Planning Commission and Finance Commission); Categorisation of Municipal Sources of Revenue: Internal Vs. External Revenue, Capital Vs. Revenue Receipt; Municipal Finance Assessment Framework; Municipal Finance: Paradigm Shift; Reforms in Municipal Finance: Unit Area Method in Property Tax Calculation, Rationalisation of User Charges; Ringfencing; Streamlining Municipal Tax Administration
- Innovations in Local Resource Mobilisation: Monetary Exaction (Betterment Levy, Impact Fee, External Development Charges, Vacant Land Development Tax); Land Exactions (TDR, Town Planning Scheme, Accommodation Reservation, Monetisation of Underutilised Public Assets); Special Assessment Districts; Valorisation Charges; External Finance: Debt Financing, PPP, Role of Financial Intermediaries, Municipal Bond, Pooled Finance
- Local Government Fiscal Regime: Local Government Budget: Normal Budget, Performance Budget, Gender Budget (concept only); Salient Features of Fiscal Responsibility and Budget Management Act, 2003; Fiscal Devolution vis a vis Fiscal Dependency of Local Bodies; Fiscal Indicators – Revenue Dependency Ratio (RDR), Fiscal Autonomy Ratio (FAR), Expenditure Decentralisation Ratio (EDR); Municipal Accounting and Auditing (overview only)

### **Suggested Readings:**

1. Constitution of India, D.D. Basu, S. Chand and Sons, New Delhi
2. Democracy, Development and Decentralisation – Continuing Debates, Taylor and Francis, India
3. India: The Challenges of Urban Governance, O.P. Mathur, National Institute of Public Finance and Policy, New Delhi
4. Local Governance in India – Niraja Gopal et al., Oxford University Press
5. New Forms of Urban Governance in India, Baud I.S.A. et al., Sage
6. People's Participation in Urban Governance, K.C. Sivaramkrishnan, CSS, New Delhi
7. Urban Governance and Management: Indian Initiative, P.S.N. Rao, Kanishka Publishers
8. Leadership and Team Building, Uday Kumar Halder, Oxford University Press
9. Developing Countries, Bahl Roy W. Et al., Oxford University Press
10. Public Finance: Policy Issues for India, Sudipto Mundle, Oxford University Press
11. New Issues in Panchayati Raj, D. Bandopadhyay et al., Concept Publishing
12. Fiscal Decentralisation and Governance – A Cross Country Analysis, De Mello, IMF Working Paper (WP.01/171, 2001)
13. Fiscal Decentralisation to Local Government in India, M.A. Oommen, Cambridge Scholars Publishers
14. Municipal Finance in India – An Assessment, P.K. Mohanty et al, Reserve Bank of India
15. Municipal Finance – A Handbook for Local Government Practitioners, World Bank
16. Federalism and Fiscal Transfers in India – C. Rangarajan et al., Oxford University Press
17. Costs and Challenges of Local Urban Services: Evidence from Indian Cities – O.P. Mathur et al., Oxford University Press
18. Fiscal Federalism in India – Vithal & Sastry, Oxford University Press

## **MPUR0205: Land Economics and Real Estate**

### **Course Objective:**

One of the prime concerns of urban development is the issue of land availability. In addition to government policies on land, market forces guide and force development on different patterns based solely on the equilibrium of demand, supply and pricing. In India, since the liberalisation of the economy and housing being provided by the private sector, the dynamics of the housing industry have changed significantly. This course introduces students to the concept of land markets and development of cities with private developers with the interests of profit, as key players in the development process.

### **Course Contents:**

- Economic Concepts of Land; Objectives and Scope of Land Economics; Land Use and Land Values: Market Dynamics and Impact on Land Use Pattern; Land Use Restrictions Affecting Land Availability
- Development of Land and Real Property Process - Cost of Development, Source of Finance
- Economic Aspects of Land Policies at Various Levels of Decision Making; Private Ownership and Social Control of Land
- Definition of Real Estate - Physical, Financial and Social Perspectives; Comparison of Real Estate to Other Investment Avenues; Real, Local, National and Global Factors Affecting Real Estate; Real Estate as Facilitator of Development
- Concepts of Real Estate Analysis - Mapping Supply to Understand Markets; Demand Factors Affecting Real Estate Development, Demand-Supply Gap Analysis
- Methods of Technical and Financial Feasibility Analysis for Different Product and Project Types
- Valuation of Land and Property; Methods of Valuation: Comparison Method, Residual Method, Discounted Cash Flow Method
- Transaction and Renting of Real Estate: Lease Deeds/ Sale Deeds, Sale Documents, Registration; Mortgage and Pledging
- Real Estate Dynamics in India: Profiling of Metropolitan Cities, Tier I, Tier II And Tier III Cities; Changing Cycles of Real Estate Development
- Emerging Areas of Real Estate Development: Diversification to Logistic Hubs, Industrial Parks, Hospitality Sector, Health and Education Sector by Private Players; Introduction to Financial Models
- Divided cities- the concept of affordability and housing as against shelter as a basic requirement; towards inclusive cities

### **Suggested Readings:**

1. Urban Economics, Arthur O'Sullivan, Mcgraw-Hill
2. Urban Economics and Real Estate Markets, Denise DiPasquale and William C. Wheaton, Prentice hall
3. Urban Land Market and Land Price Change: A Study in the Third World Context, Amitabh Kundu, Ashgate Publishing Company.
4. Economics, Real Estate and the Supply of Land, Alan Evans, Wiley and Blackwell
5. Analyzing Land Readjustment: Economics, Law and Collective Action, Hong, Yu-Hung and Barrie Needham, Lincoln Institute of Land Policy
6. Urban Land Economics, Jack Harvey, Palgrave MacMillan
7. Urban Land Economics and Public Policy, Paul N. Balchin, Gregory H. Bull and Jeffrey L. Kieve, Palgrave MacMillan
8. Real Estate Finance: Theory & Practice, Terrence M. Clauretje and G. Stacy Sirmans, Cengage Learning
9. Urban Land Policy and Public-Private Partnership for Real Estate and Infrastructure Projects, A. K. Jain, Readworthy
10. The Modern Economics of Housing : A Guide to Theory and Policy for Finance and Real Estate

## **MPEM0206: Transport Planning and Management**

### **Course Objective:**

The basic objective of this course is to introduce to the students of planning with the integration of transportation planning and its interface of land use planning. Another objective is to ensure that students have a sound understanding of the key issues affecting the planning, management and financing of public transport in developed and developing countries.

### **Course Contents:**

- Understanding Sustainable Development and Sustainable Transport; Land-Use and Transport Planning – Key Relationships; Land Use Transport Integration Models
- Transport and its Relationships with the Economy, Environment and Social Progress; Accessibility Measures, Indicators of Progress, Frameworks of Assessment, Development Control and Travel Planning
- Transportation Planning Process - Area Delineation, Zoning (TAZ); Four Stage Planning Process: Trip Generation, Trip Distribution, Trip Assignment and Modal Split
- Traffic Management- Signal design; Phasing and Time cycles; Principles of one way system design
- Pedestrianisation and non-motorised transportation- Issues, policies and case studies; Towards more inclusive cities; Comprehensive Mobility Plan
- Introduction to External Cost of Urban Transportation: Issues, Level of Service and Transport Pricing, Congestion Pricing, Policy Issues, Emission Standards and Energy Policy; National Urban Transport Policy 2006
- Pricing and Revenue in Transport- Pricing; Revenue and Forecasting; Willingness to Pay;
- Introduction to Freight Transport- differences from passenger transport; location choice of transport hubs in relation to regional distribution linkages
- Regional Transport Issues: Intercity Connectivity; Urban –Rural Linkages and Road Hierarchy; Road and Rail as Competing/Complementary Modes; Highway Standards in Indian Context;
- Software Applications: E.G. Cube 6- Network Coding, Creation of Models, Data Base and Scenarios in Cube Base, Cube Voyager Modeling Functions; Urban Land Use &Transportation Planning Applications

### **Suggested Readings:**

1. Modelling Transport (2011), Juan De Dios Ortuzar, Luis G. Willumsen, Publisher: John Wiley & Sons
2. Integrated Land Use and Transport Modelling, Author: Tomas De La Barra, Publisher: Cambridge University Press.
3. Location, Transport and Land-Use: Modelling Spatial-Temporal Information, by Yupo Chan, Publisher: Springer
4. The Economics of Transport: A Theoretical and Applied Perspective, Jonathan Cowie, Routledge
5. Transportation Engineering and Planning, C. S Papacostas, P. D Prevedouros PHI Learning
6. Transportation Engineering: An Introduction, C. Jotin Khisty, B. Kent Lall Phi Learning
7. Public Transportation Improvement, Semiat Idris, Lambert Academic Publishing
8. The Economics of Transport: A Theoretical and Applied Perspective, Jonathan Cowie, Routledge
9. Integrated Land Use and Transport Modelling, Author: Tomas De La Barra, Publisher: Cambridge University Press.

## **MPUR0207: Applications of Geoinformatics in Planning**

### **Course Objective:**

The objective of this course is to equip students with advanced concepts of Geoinformatics with special emphasis on applications in Urban and Regional Planning.

### **Course contents:**

- Overview: Principles and Applications of Remote Sensing (RS); Geographic Information Systems (GIS) and Photogrammetry; Organisational Aspects for Planning; Systems, Nature, Hierarchy, Value and Type of Required Spatial Data; Raster and Vector Data Structures; Spatial Data Models; Geo-Database; Analysing Tools and Software; Global Navigation Satellite Systems; Electromagnetic Spectrum, Band Combination, Reflectance; Image Interpretation and Analysis
- Information Systems - Information Needs, Scales and Levels; Pre-Conditions for Using Planning Information Systems; Representing, Modelling and Impact Analysis of the Data; Structure Models; Query Measurement and Transformations; Summary Statistics and Inference; Terrain Modelling
- Data Creation and Checking - Base Maps and Thematic Maps; Mapping and Spatial Analysis; Linking of Attribute Data, Spatial Data Aggregation; Spatial Information, Database Creation; Geo-Coding and Data Accuracy, Topology Creation
- Topography and Landforms; Digital Change Detection; Suitability Analysis; Landuse / Landcover Analysis; Use of GIS Data Focusing on Urban and Regional Planning
- Laboratory Exercises – in Selected Packages of Image Processing and GIS; Dynamic GIS; Integration of GIS and Digital Image Processing; Integration of GIS and GPS; Web Enabled GIS Applications

### **Suggested Readings:**

1. Advanced Surveying: Total Station, GIS and Remote Sensing, Satheesh Gopi, Pearson
2. Applied Remote Sensing in Urban Planning, Governance and Sustainability, Netzband, Springer, India
3. Environmental Modelling with GIS and Remote Sensing, Andrew Skidmore et al, CRC Press
4. Geographic Information Systems and Science, PA Longley et al, John Wiley and Sons Ltd.
5. GIS, Spatial Analysis, and Modelling, David J Maguire et al, ESRI Press
6. Landuse Change Detection using GIS, Remote Sensing and Spatial Matrices, Mesfin T Bekalo et al, Lap Lambert Academic Publications
7. Lans Sustainability Evaluation using GIS and Remote Sensing Technology, Mezenzia Mengist, Vdm Verlag
8. Remote Sensing and GIS Integration: Theories, Methods and Applications, Qihao Weng, McGraw Hill Professional
9. Remote Sensing and GIS, Basdudeb Bhatta, Oxford University Press
10. Remote Sensing and Image Interpretation, Thomas M Lillesand et al, John Wiley and Sons Ltd.



## **SECOND YEAR: THIRD SEMESTER**

### **MPEM0301: Planning Studio – II (Urban Planning)**

#### **Course Objectives:**

The studio is designed to expose the students to issues of urban planning and equip them with knowledge and techniques to enable them to analyse urban situations and develop logical decision making processes to address the complex overlays of conceptualisation, implementation and finance.

#### **Course Content:**

The studio is designed to study one particular urban area and analyse its issues and develop spatial plans with thrust on critical sectors. It focuses on the preparation of integrated development plan for a selected urban area analysing all aspects of physical planning including socio-economic factors and physical infrastructure and also formulation of methods of implementation and projectisation. The course deliverables would be designed based on specific projects undertaken, keeping in mind the overall objective of the course.

- Identification of an urban area
- Identification and Formulation of Planning Objectives for the project
- Survey of the study area. Data collection through primary and secondary surveys
- Analyses and presentation of data and information
- Review of Planning Objectives post data analysis; Redefining objectives
- Planning for urban area and its region (structure plan / development plan) with emphasis on: Land use, transportation networks and Infrastructure networks
- Preparation of Detailed Project Report (case specific)
- Identification and Detailing of Action Area, Local Area plans or Project Plans (case specific)
- Plan Implementation strategies: Stake holder participation, project funding options
- Implementation strategies including urban governance and management issues

### **MPUR0302 A: Common Pool Elective: Urban Redevelopment**

#### **Course Objective:**

This course introduces students to basic concepts in urban renewal. The course provides an understanding of the principal academic discourse relating to processes of urban renewal and change, and a critical awareness of theory relating to the process or urban renewal, and its application to specific practice settings and questions.

#### **Course Content :**

- Changing Cities & Neighbourhoods; Broad Knowledge of the Concepts and Theories Relevant to the Study of Urban Redevelopment; Spatial Planning and Urban Policy (together with an understanding of the main trends in urban development in developing countries today)
- Policy Analysis for Urban Redevelopment; Introduction of Different Ways of Thinking about what Policy is and how it is formulated: The Actors, Institutions, Ideologies, Information (Evidence), Popular Opinion, The Media and Other Factors that Influence Urban Policy-Making and Policy Outcomes with Respect to Urban Renewal and Regeneration
- Regenerating Cities: Strategies & Evaluation; An Overview of the Development, Delivery and Impact of Regeneration Strategies; The Challenges of Achieving Effective Regeneration in Indian Cities in the Context of Global Change and Competition and Experiences in South East Asian and East Asian Countries
- The Role of Public Sector Agencies; Area Based Redevelopment Initiatives; Property-Led Redevelopment Policies; Investment and Funding of Urban Redevelopment Schemes

- Role of private sector in redevelopment- Nature of In-fill; Development Potential and Pricing; Land locking and stagnation; Plot reconstitution
- Renewal through Housing and Mixed Use Development; Community Participation in Renewal Schemes; Sustainable Development through Urban Renewal; Brownfield Development with Respect to Urban Renewal in Cities
- Integrated Urban Conservation - Principles, Economic, Legal and Tourism Aspects; Planning Procedures, Inspection and Surveys; Investigation Techniques; Methods for Inventories and Documentation; Identification and Reporting on Heritage Zones; Grading and Enlisting
- Programs and Techniques for Adaptive Reuse, Restoration, Rehabilitation; New Buildings in Historic Settings – Aspects and Design Methods
- Implementation of Plans and Urban Management: Phasing, Resource Mobilization, Incentives; Acts and Legal Tools;

### **Suggested Readings:**

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

## **MPUR0302 B: Common Pool Elective: Planning for Tourism**

### **Course Objective:**

To introduce the principles of planning for tourism in various tourism contexts and developing appropriate planning strategies and tools.

### **Course Content :**

- Planning for Leisure and Tourism - Key Determinant; Characteristics of Tourism Sectors; Differences Between Leisure and Business Tourism
- Types of Tourism: Cultural Tourism, Eco-Tourism, Heritage Tourism, Adventure Tourism, Religious Tourism, Leisure Destination Tourism; Characteristics of Each and Planning Implications
- Social Factors Shaping Leisure; International Tourism Trends; Factors and Impact on National Tourism Markets
- Regional Context of Tourism Locations, Circuit Identification and Destination Planning
- Tourism Infrastructure- Definition and Classification; Tourism as a Burden on Local Infrastructure
- Tourism and Economy- Impact on Livelihoods and Local Communities
- Tourism Plans- Components, Time Frame, Actors, Cost and Revenue, Etc.
- National Policies Affecting Tourist Inflow, Role of Multiple Government Authorities and Agencies Involved in Tourism Development; Private Players in Tourism Development

### **Suggested Readings**

1. Tourism Planning: Basics, Concepts, Cases, Clare A. Gunn
2. Contemporary Issues in Tourism Development, D.G. Pearce, ed, Routledge
3. Cultural Tourism and Sustainable Development, L.F. Girard ed.
4. Event Tourism: Critical Concept in Tourism
5. Sustainable Tourism Management, John Swarbook
6. Tourism and Poverty Reduction: Pathways to Prosperity, J Mitchell
7. Tourism and the Less Developed World: Issues and Case Studies, David Harrison
8. Tourism Infrastructure Development: Sustainable Approach, Manoj Sharma

## **MPUR0302 C Common Pool Elective: Quantitative Methods and Systems Analysis**

### **Course Objective:**

The purpose of this course is to study the basic tools for quantitative methods for decision making at an introductory level. The emphasis of the course shall be on solution methods and strategies. The students will be exposed to a wide variety of applications and problems that can be addressed using quantitative methods and techniques. Analytic techniques and computer packages will be used to solve problems.

### **Course Content :**

- Overview of Analytical Methods; Introduction to methods and appropriate applications
- Cluster Analysis; Principal Component and K- means; Analytical Hierarchy Process; Decision Trees; Multi criteria Analysis;
- Introduction to Operations Research (OR); Basic Mathematical and Statistical Concepts
- Linear Programming (LP): LP Definition, Applications, Solution Methods, Simplex Method, Duality and Post Optimality Analysis; LP and Allocation of Resources
- Maximization and Minimization Problems: Graphical LP Minimization Solution; Introduction to Simplex Method: Definition, Formulating the Simplex Model; Sensitivity Analysis: Changes in Objective Function, Changes in RHS
- Network Analyses: Minimum Path Algorithms, Vogel's Approximation Method, Link Flows and Inter-Zonal Flows
- Queuing Models: Deterministic Queuing Model, Probabilistic Queuing Model, Single Server FIFO Systems, Multi Server FIFO Systems
- Simulation Systems Concepts: Types of Systems, System Modeling, Nature and Process of Simulation, Monte Carlo Simulation, Computer Applications for Simulation Models, Use of Softwares for Simulation Processes

### **Suggested Readings:**

1. Principles of Operations Research, Harvey M Wagner, Prentice-Hall
2. Operations Research – Principles and Application, G Srivastava, PHI Prentice-Hall
3. Operations Research, Hamdy A Taha, MacMillan

## **MPUR0303 A Elective I: Planning for Special Areas**

### **Course Objectives:**

To introduce the students to various Special Areas with their specific planning needs and priorities and the implication on development in these areas.

### **Course Contents:**

- Need for Special area planning, types of special areas and their defining characteristics.
- Evolution of special planning areas under distinct geo-physical structure, location, extreme backwardness etc. Planning commission approaches for identification of special areas.
- Legislations and norms for Special Area Development in the Indian context.
- Planning for Special Areas under consideration would include Formal and Functional Regions (Hill Areas, Coastal Areas, Desert Areas, Extremist Affected Area, Special Economic Zones, Port City, Aerotropolis, Medi-City, Knowledge City etc.).
- Capital investment and funding methods, public private partnerships in development process.
- Governance and Management aspects.
- Case Studies of various typologies of Special Area Development Plans in Indian and international context.

**Suggested Readings:**

1. Development of Hill Areas, Dobha G.L, Concept Publishing
2. Environmental Problems of Coastal Areas in India, Sharma Vinod, Bookwell
3. Integrated Development of Hill Districts in India : Issues and Approaches, Gupta, R.C., SPACE
4. Special Economic Zones In India, P. K. Manoj, Serials Publications
5. Aerotropolis:The Way We'll Live Next, John Kasarda, Allen Lane
6. Environmental act in india, Ruma Chatterjee, Oxford University Press
7. CRZ Regulations, 2011, MoEF

**MPUR0303 B Elective I: Sustainable Planning Practices****Course Objective:**

The objective of this course is to familiarize students with the concept of sustainable development and develop skills to understand emerging aspects of sustainable planning practices. The course is aimed at making the students aware of different planning and management practices adopted worldwide for minimizing the adverse impacts of human actions on environment and society, as also understand strategies that seek to proactively manage these issues.

**Course Contents:**

The course shall include the following topics:

- Overview of Sustainable Development Concept - Definitions, Concepts and Parameters in Sustainable Development with Particular Reference to Brundtland Commission and Agenda 21; Eco-City Approach; United Nations Framework Convention on Climate Change; Conference of Parties: Kyoto Protocol, Intergovernmental Panel on Climate Change, National Communication Process, Indian Network of Climate Change Assessment, Global Environment Facility, Clean Development Mechanism
- Application of Ecological Principles in Sustainability; Carrying Capacity Based Planning: Concept, Parameters and Indicator Measures, Models and Case Studies in Urban and Regional Development
- Basics of Climate Change: Greenhouse Gases, Anthropogenic Causes, Carbon Cycle, Global Warming; Inventory of GHGs; Urban Heat Islands; Climatic Change and Human History, Economy, Energy and Environment
- Impacts of Climate Change: Climate as Forcing Variable, Locational Attributes, Sensitivity and Vulnerability of Different Sectors, Extreme Events and their Effects
- Settlement Planning: Urban Environmental Management and Planning; Human Activities and Energy in Cities; Contribution to GHGs; Sectoral Contributions; Urban Environmental Simulators
- Environmental Impact and Strategic Environmental Assessment for Urban Areas (through Case Studies); Ecological Footprint Analysis of Cities; Sustainable Lifestyle Assessment and Behavioural Modifications at Household Levels
- Concept of 3-Rs: "Recycle-Reuse and Recovery"; Concepts of Industrial Symbiosis and Ecology; Case Study of Waste Recycling: Its Cost Effectiveness and Options; Examples of Best Practices
- Land Capability and Suitability Analysis in Locating and Planning for Urban Land Uses
- Compact City Concept - Implications of Urban Form, Density, Land Use Pattern and Transportation System in Land and Energy Conservation; Use of Non-Conventional Energy Sources in Urban Development
- Urban Interference in Hydrological Cycle with Particular Reference to Water Pollution, Water Resources, Drainage and Natural Ecosystems; Urban Water Treatment, Recycling and Harvesting
- Pollution Control Measures for Industrial Wastes, Hazardous Wastes, Biomedical Wastes, Domestic Waste Water, Air Pollutants and Noise
- Cleaner Production Concepts and Practice through Case Study of a Functional Industrial Estate

**Suggested Readings:**

1. Eco-City Planning: Policies, Practice and Design, Tai-Chee Wong and Belinda Yuen, Springer
2. Green Cities, Growing Cities, Just Cities? Scott Campbell, Urban Planning and the Contradictions of Sustainable Development, Journal of The American Planning Association
3. Cities and Climate Change, OECD Publishing OECD (2010)
4. The Economics of Low Carbon Cities: A Mini-Stern Review for the Leeds City Region, Andy Gouldson et al., The Centre for Low Carbon Futures Partnership, University of Hull, University Of Leeds
5. AITP Reader on Ecology & Resource Development, AITP
6. AITP Reading Material on Environmental Planning and Design, Prof. A. K. Maitra, SPA Delhi
7. Best Practices Environment, The Economist, Intelligence University Press
8. CPCB Guidelines for Bio-Technologies for Treatment of Wastes and Cleaner Technologies - Issue and Options
9. Environmental Management, Kulkarni V. and Ramachandra T. V., TERI Press, New Delhi
10. Evaluating Sustainable Development in the Built Environment, Brandon P.S., WILEY-BLACKWELL Pub., UK
11. Exploring Possibilities of Achieving Sustainability in Solid Waste Management, Ramachandra T.V. and Saira Varghese K., Indian Journal of Environmental Health, 45 (4):255-264, 2003
12. Global Green Standards: ISO 14000 and Sustainable Development, International Institute for Sustainable Development
13. Introduction to Environmental Management, Mary K. Theodore and Louis Theodore
14. Population Growth and Environmental Degradation in India, Dr. D.A. Nagdeve
15. The Sustainable Urban Development Reader, Second Edition, edited by Stephen M Wheeler & Timothy Beatley, Routledge

**MPUR0304: Project Appraisal and Management****Course Objective:**

The objective of the course on Project Appraisal and Management is to train the students in managing a project right from its conception to evaluation. The organisation of the course has been so designed that it graduates from concept to application on all aspects of project management. Besides imparting the application techniques relevant for the concerned topic, students would also be made familiar with Microsoft Project in performing simple project management tasks.

**Course Contents:**

- Definition of Project and Project Management; Importance of Project Management; Stages of Project Life Cycle; Causes of Project Delay; Behavioural Aspects of Project Management; Role of Project Manager; Attributes of a Successful Project Manager
- Introduction to Project Appraisal; Types of Feasibility; Financial and Economic Appraisals; Ascertaining Project Costs and Benefits; Project Financial Appraisal Techniques – Payback Period, Benefit Cost Ratio, Net Present Value, Internal Rate of Return; Components of a Feasibility Study; Social Cost Benefit Analysis
- Introduction to Project Planning; Process of Project Planning; Project Planning during Investment Phase; Planning for Project Work (Work Breakdown Structure); Planning for Manpower and Organisation; Planning for Project Finance; Planning for Information System; Process of Project Formulation; Constraints in Project Formulation; Breakeven Analysis; Sensitivity Analysis ;Project Budgeting and Performance Budgeting

- Definition of Project Scheduling; Steps in Project Scheduling; Network Techniques in Project Scheduling; Activity on Arc/Node; Forward Pass and Backward Pass; Critical Path and Slack; CPM Simulation; PERT (Concept only); Gantt Chart (Concept only)
- Definition of Project Monitoring; Criteria for Decision Making; Parameters and Tools of Control; Use of Network Analysis in Project Monitoring; Analysis of Cost and Time; Reporting and Corrective Actions; Resource Management – Resource Loading and Resource Levelling; Project Reporting
- Types of Project Evaluation; Tools of Project Evaluation; Time Frame in Evaluation; Project Cash Flows – Elements of Cash Flow Stream; Principles of Cash Flow Estimation; Project Benefits; Sources of Funds – Disposition of Funds; Financial Closure

### **Suggested Readings:**

1. Construction Project Management : Planning, Scheduling and Controlling, K.K. Chitkara, Tata Mc Graw Hill
2. Project Management, Clifford F Gray et all, Tata Mc Graw Hill
3. Construction Project Management, Kumar Neeraj Jha, Pearson Education
4. Project Management – FAQ, G.P. Sudhakar, Golgotia Publication
5. Project Management, Vinod M. Patel, Oxford Book Company
6. Project Management, S. Choudhury, Tata Mc Graw Hill
7. Project Management – A Managerial Approach, Samuel J. Mantel, Wiley India
8. Essentials of Project Management, Ramakrishna Kamaraja, Phi Learning
9. Project Management, R.C. Sinha, Alpha Publications
10. Projects: Planning, Analysis, Selection and Review, Prasanna Chandra, Tata Mc Graw Hill
11. Project Management for Business and Technology, John M Nicholas, Prentice Hall of India Pvt. Ltd.
12. Project Planning, Scheduling and Control, James P Lewis, Tata Mcgraw-Hill Publishing Co. Ltd.

### **MPUR0305: Disaster Mitigation and Management**

#### **Course Objective:**

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

#### **Course Content :**

- Definitions, Meaning and Types of Disasters; Overview of Disasters across the World
- Natural Disasters and Manmade Calamities- Statistics, Degree of Damage, Frequency of Occurrences and Other Historical Facts
- Classification of Disasters in India by Predominant Types- Earthquake, Flood, Hurricanes, Fires Etc.
- Identification of Disaster prone areas; Disaster Vulnerability Mapping
- Disaster Preparedness, Response and Post Disaster Recovery and Rehabilitation Measures; Risk Mitigation and Risk Transfer
- Technology for Rebuilding of Disaster Affected Areas
- Psychological Impact on Disaster Victims
- Risk Mitigation and Risk Transfer
- Recent Initiatives at International National and State Level; Kyoto Framework of Disaster Mitigation and Management; Disaster Management Policies and Act - National and States; Select Global Practices
- Forecasting and Early Warning Systems for Various Types of Disasters; Communication and Information Technology in Disaster Management
- Climate Change and Its Implications in Disaster Mitigation

#### **Suggested Readings:**

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

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

## **MPUR0306: Urban Design and Landscape**

### **Course Objectives:**

The course comprises of two components of Urban Design and Landscape. The objective of this course is to acquaint student with the role of urban design and landscape planning in Urban and Regional Planning and equip them with appropriate methods and techniques.

### **Course Contents:**

#### **Urban Design**

- Scope and Objectives of Urban Design; Its Relation with Architecture and Urban Planning; Scale of Various Urban Design Projects - Regional and City Level; Urban Design Terminology
- Modern Techniques , Methods and Emerging Approaches to Urban Design; Behavioural Issues in Urban Design; Principles of Urban Spatial Organization
- Urban Spaces - Hierarchy and Nature, Sense of Enclosure, Isolation and Continuity, Skin and Perception; Urban Massing in Built Form; Image Ability and Elements of Urban Design
- Urban Design at Micro Level: Campus Planning, City Centres, Transportation Corridors, and Residential Neighbourhoods
- Development Control Guidelines, Zoning --- Restrictive, Indicative, Performance and Incentive Zoning
- The Social, Perceptual, Temporal and Morphological Aspects of Urban Design
- Understanding Scale and Issues of Urban Design Interventions and Strategies in Cities
- Case Studies of Urban Design Projects: Best Practices and Analysis of Urban Design Projects in India

#### **Landscape**

- A Comparative Study of the Major Traditions of Landscape Design in the East and the West in Relation to Concepts of Space and Variations in the Use of Landscape Elements
- Principles and Techniques of Design with Landform, Water and Vegetation; Plant Characteristics and Planting Designs; Plantations along Urban Roads and Regional Highways; Landscaping of Recreational Areas; Landscape Design Related to Land-Use, Circulation Networks and Activity; Street Furniture as a Component of Urban Landscape
- Characteristics and Components of Open Space Patterns in Towns and Cities (Traditional and Contemporary); Basic Types: Streets, Squares, Plazas, Gardens, Ghats and Maidans, Public Parks at District, Local and Neighbourhood Levels; Park Systems; Urban and Regional Level Open Spaces
- The Rural Landscape: Characteristics, Components and Change Related to Agriculture, Forestry and Development
- Principles of Understanding and Evaluating an Existing Landscape; Development as a Response to Constraints and Opportunities Offered by the Site
- Site Planning: Site and Resource Inventory Methods, Analyses and Appraisal; Landscape Suitability Analysis
- Landscape Evaluation; Landscape Conservation – Principles and Techniques
- Landscape Planning as a Component of Regional Development Proposals for Industrial Location (Manufacturing and Extractive); Environmental Conservation, Tourism, Etc., Landscape Planning in the Context of Urban Extensions and New Towns; Introduction to Landscape Ecology, Cultural Landscapes.

## **Suggested Readings**

### **Urban Design**

1. The Urban Design Reader, Elizabeth McDonald, Routledge, New York
2. Public Places Urban Spaces : Dimensions of Urban Design , Mathew Carmona, Steve Teisdell, Architectural Press, London.
3. Redesigning Cities: Principles, Practice, Implementation , Jonathan Barnett , American Planning Association , New York.
4. Responsive Environments , Ian Bentley, Architectural Press, London
5. Image of the City , Kevin Lynch, MIT Press
6. Urban Design: The Architecture of Towns & Cities, Paul D. Spreiregen, R.E. Krieger Pub.
7. Town Design , Frederick Gibberd, Architectural Press, London
8. Making People Friendly Towns – Improving the Public Environment in Towns and Cities, Francis Tibbalds, Spon Press, London.
9. The Concise Townscape, Gordon Cullen, Taylor and Francis, London.
10. My Idea of India, Sunil Khilnani, Farrar Straus and Giroux.

### **Landscape**

1. Design with Nature, Ian L. McHarg, John Wiley
2. Landscape Architecture: A Manual of Environmental Planning and Design, John O. Simonds
3. Urban Landscape Design, John A. Flannery et al, The Neues Publishing Company
4. Routledge Handbook of Urban Ecology, Ian Douglas ed., Routledge
5. The Dynamic Landscape: Design, Ecology and Management of Naturalistic Urban Planning, Nigel Dunnett et al, Taylor and Francis
6. Anatomy of a Park: Essentials of Recreation Area Planning and Design, Dahl B. and Donald J. Molnar, Illinois, Waveland Press 2003
7. Basics Landscape Architecture 01: Urban Design, Ed Wall and Tim Waterman, London AVA Academia, 2009
8. Time-Saver Standards for Landscape Architecture, C.W. Harris and N.T. Dines, New York, McGraw-Hill, 1998

## **MPUR0307: Thesis Programming**

### **Course Objective:**

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

### **Course Contents:**

- Identification of topic of interest having relevance to planning profession, integration and application of the learnt research processes to the pre-thesis work
- Book reviews and journal article compilation to establish the body of work existing in the selected area of work
- Collection of data and opinions by the stakeholders, decision makers, urban managers, advocates, technocrats, user groups, etc. on the topic selected.
- Based on the literature review and inputs from the colloquial arguments, the topics shall be finalised for thesis in the subsequent semester.
- Selection of study area, identification of extent and spread of intervention; collection of data for preparation of base map.
- Development of research thrust and work methodology. Identification of data sources.
- Data collection and analysis: sample determination, data tabulation (coding, de-coding, etc.), quantitative and qualitative data analysis. Appropriate and relevant data analysis



methods would need to be studied by individual students based on thesis topic and research area.

- Finalisation of topic; formulation of problem statement, literature review, working hypothesis, research brief, research methodology, sample determination, data collection and analysis, report structuring.

The student will be required to make two seminar presentations and submit a report at the end of the semester which will qualify as the literature review and research methodology component of his/her thesis in the forthcoming semester.

### **MPUR0308: Professional Training (Summer)**

#### **Course Objective:**

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

#### **Course Contents:**

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

## **SECOND YEAR: FOURTH SEMESTER**

### **MPUR0401: Thesis**

#### **Course Objective:**

To develop independent critical thinking and design/research abilities and apply the knowledge gained, skills developed and professionalism inculcated over the last three semesters in an exercise of own interest and significant complexity.

#### **Course Contents:**

- The thesis project is to be undertaken independently by each student on a topic of his/her choice related to urban and regional planning, selected and approved by the faculty during the previous semester as part of course requirements of the subject seminar
- As part of the studio requirements, the student is expected to go through a process of documentation, analyses and synthesis related to his/her specific topic and related area of work.
- Initial stages would include study of relevant case studies and literature relevant to the topic, on the basis of which the space program would be determined.
- Alternative designs arrived at through an iterative process of prioritization and elimination would be developed in the next stage.
- Final stages of work would include detailed design of the best option selected. detailing would be largely dependent on the thrust and focus of the project selected and would vary from student to student.
- The student is required to work under the guidance of a supervisor allotted by the department and complete the requisite work in the course of the semester, ending in a viva-voce exam by a panel of examiners both external and internal.
- Progressive evaluation would be done by a panel of external and/or internal jurors during reviews held at intervals during the course of the semester.
- The student is required to defend his thesis through drawings, reports, study sheets, models and digital presentations and verbal communications in all the reviews and the final viva-voce.

### **MPUR0402 A: Elective II - PPP in Development**

#### **Course Content:**

- Concepts and Need for PPP: Urban Sector - Existing Attributes and Changing Scenario; Problems Associated with Urban Sector Development; PPP – Definition, Need and Stages; PPP and Privatization; Evolution of PPP in India
- Trends and Challenges: Challenges of Developing PPP Projects in Urban Sector; Recent Trends of Increasing Private Participation; Possible Partners and their Possible Roles
- Forms of Partnerships: Forms of PPP: Service Contract, Management Contract, Lease, Divestiture and Concession; Different Options under Concession – BOO, BOOS, BOT, BOLT etc.; Joint Venture and Community Led Informal Partnership Approaches; Relative Merits and Demerits of Different Forms of PPP; Funding Structures under PPP
- Partnerships, Alliances and Urban Development: Preconditions for Partnerships; Advantages of Collaboration; Making Groups and Partnerships Effective; Methods of Promoting Participation; Using Partnerships for Improving Urban Development in Small and Medium Size Cities; Meeting the Needs of the Urban Poor through Public-Private Partnerships
- Mechanisms of PPPs: Mechanisms in Partnerships: Regulations and Administrative Procedures; Role of Government as Partner, Regulator and Enforcer; Principles of PPP – Contractual Framework, Selection of Service Provider, Payment Mechanism, Monitoring and Evaluation, Risk and Revenue Sharing; Regulatory Authority for PPP; Model Contract Agreement

- Case Studies: Selected Case Studies in PPP - Highway, MRTS, Real Estate, Urban Infrastructure, Water Supply, Solid Waste Management, Slum Redevelopment, Etc.

### **Suggested Readings:**

1. PPP in Infrastructure, R N Joshi, Vision Booth
2. Urban Models and Public Private Partnerships, Remo Dalla Longa, Springer
3. Public-Private Partnership Projects in Infrastructure, Jeffrey Delmon, Cambridge University
4. Public Private Partnership, G Ramesh et all, Routledge
5. Urban Level Policy and PPP for Real Estate & Infrastructure, A K Jain, Readworthy
6. Strategic Issues in Public-Private Partnerships, Anneloes Blanken, John Wiley & Sons
7. Affordable Housing and Public-Private Partnerships, Nestor M. Davidson, Ashgate Publications
8. PPP for Urban Waste Utilities: A Review of Experiences in Developing Countries, Philippe Marin, World Bank
9. Policy, Management and Finance for PPP, Akintola Akintoye et all., John Wiley & Sons
10. Public Private Sector Provision of Urban Services, National Institute of Urban Affairs (NIUA), New Delhi
11. Scope and Practice of Privatisation of Urban Services in India National Institute of Urban Affairs (NIUA), New Delhi
12. How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets, Edward Farquharson et all., World Bank, 2011
13. Infrastructure Development: Public and Private Participation, Seminar, 1999, - Institute of Town Planners India
14. National Public Private Partnership Policy, Department of Economic Affairs, Govt. Of India, 2011
15. Public-Private Partnership Handbook, Asian Development Bank
16. Public Private Partnership in Infrastructure, Yogendra Sharma, Vitasta, New Delhi
17. Public Private Partnership for Rural Development: A Corporate Social Responsibility Perspective, Aarushi Jain, Kanishka Publishiners, New Delhi
18. Public Private Partnerships Approach, Rakesh Ranjan, Adhyayan Publisher

### **MPUR0402 B: Elective II- Public Policy Analysis**

#### **Course Objective:**

This course intends to provide an in-depth study of the various approaches for policy formulation, implementation and evaluation. It addresses issues in policy analysis, and explains the forces that influence the functioning of executive, legislature, judiciary, civil society, NGOs and administration. It will also cover a critical analysis of policies that are directly connected with inclusive sustainable urban development.

#### **Course Contents:**

- Policy Analysis: Nature, Scope, Significance and Contextual Perspectives; Policy Making Approaches and Models: Power Approaches to Policy-Making, Institutional Approaches to Policy Analysis, Strategic Planning Approach for Improving Public Policy, Rational Approach and Simon's Rationality Model; Decision-Making Process and Techniques
- Policy Monitoring: Approaches and Techniques; Policy Evaluation: Techniques and Approaches; Policy Evaluation: Role, Process and Criteria; Policy Performance: Evaluating Impact
- Policy-Making Techniques: Structure of Power and Public Policy-Making Process; Power and Role of Non-Officials in Policy-Making; Policy-Making Power within the Executive; Intergovernmental Relations and Public Policy Issues
- Public Policy Implementation: Approaches and Models; Inter-Organizational Relations and Public Policy Implementation; Public Policy Delivery Agencies and Implementers; Public Policy Implementation: Gaps and Problems
- International Agencies and Globalization of Policy Agendas
- Critical Analysis of Making, Implementation and Monitoring of following Policies:-

National Urban Sanitation Policy, National Urban Housing & Habitat Policy 2007  
National Policy for Urban Street Vendors-2009, National Environmental Policy 2006  
National Urban Transport Policy 2006, National Water Policy 2002 and 2012 (draft)  
Policy on Energy

### **Suggested Readings:**

1. Urban Policy in Practice, Tim Blackman, Publisher: Routledge
2. Public Policy: Art and Craft of Policy Analysis, R. K. Saprú, PHI Learning Pvt. Ltd-New Delhi
3. Public Policy Analysis, William N. Dunn, Pearson Education
4. Public Policy, Analysis and Design, VK Agnihotri, Concept Publishing
5. Approaching Public Policy Analysis: An Introduction to Policy and Programme Research, Kent E. Portney, Prentice Hall- Gale
6. <http://urbanindia.nic.in/policies/TransportPolicy.pdf>
7. <http://envfor.nic.in/nep/nep2006.html>
8. <http://urbanindia.nic.in/programme/uwss/NUSP.pdf>
9. [http://mhupa.gov.in/w\\_new/sug\\_npustv.pdf](http://mhupa.gov.in/w_new/sug_npustv.pdf)
10. <http://wrmin.nic.in/writereaddata/linkimages/nwp20025617515534.pdf>
11. [http://mowr.gov.in/writereaddata/linkimages/DraftNWP2012\\_English9353289094.pdf](http://mowr.gov.in/writereaddata/linkimages/DraftNWP2012_English9353289094.pdf)

### **MPUR0403: Seminar on Emerging Planning Concerns**

#### **Course Objective:**

To undertake work on contemporary topics of relevance to the planning profession. Students would be encouraged to select topics of relevance in contemporary context and undertake research on past initiatives and future possibilities in the area. The work would include literature review of previous initiatives in the area of research, tools and techniques developed, survey of stake holders' and expert opinions and reporting of findings in a technical report format.

#### **Course Contents:**

- Identification of topic of interest having relevance to planning profession.
- Book reviews and journal article reviews to establish the body of work existing in the selected area of work
- Exposure to multiple view points and colloquial arguments by the stakeholders, decision makers, urban managers, advocates, technocrats, user groups, etc. on the same topic.
- Identification of key issues related to the area of work.
- Development of future possibilities and scenarios to enrich the existing body of work.

The student will be required to make three seminar presentations and submit a report at the end of the semester.

### **MPUR0404: General Proficiency**

#### **Course Objective:**

The emphasis will be on grooming the students into well-rounded individuals who are fully aware and sensitized towards their responsibilities and local environ/conditions. The students will have to move beyond academics and actively engage themselves into various other activities so that they evolve as mature and confident professionals.

#### **Course Contents:**

A viva-voce would be conducted at the end of the semester, in which a candidate is required to furnish particulars of his other achievements, outside academics along with relevant support documents. The students will receive credits for their participation into extracurricular activities covering any or all of the following areas:

- At the Post Graduate level of education, a student is required to participate in seminars, workshops, paper publications and other events outside the core curriculum to enhance ties with the profession. All technical presentations/papers beyond the curriculum on professional and academic forums adds to the students' professional capabilities.
- Community services: On an individual basis or as a group activity.
- Physical fitness: This can be achieved either through competitive sports and/or activities like yoga etc. The students will have to conclusively demonstrate their endeavours towards this goal.
- Personality development: Activities where the student emerges as a great team member, focus on development of excellent communication skills ( verbal and written), ability to lead a team towards a goal, positivity in approach and attitude , ability to withstand and work under pressure with stiff timelines
- Pursuit of creative art viz, either of fine arts or performing arts. This may include workshops on dance, drama, painting, sketching, art appreciation and creative writing; performance-based creativity like theater, music, and dance etc.