

# UNIVERSITY OF MUMBAI



## Syllabus

For

## Master of Urban and Regional Planning

(As per Choice based Credit System  
with effect from the academic year 2016–2017)

**Cover Page**

AC \_\_\_\_\_  
Item No. \_\_\_\_\_

**UNIVERSITY OF MUMBAI**



**Syllabus for Approval**

<b>Sr. No.</b>	<b>Heading</b>	<b>Particulars</b>
1	Title of the Course	Master of Urban and Regional Planning
2	Eligibility for Admission	Graduate from engineering, architecture and technology faculty and Post-graduates from science, social sciences, commerce and management can join this course.
3	Passing Marks	50%
4	Ordinances / Regulations (if any)	
5	No. of Years / Semesters	4semesters / 2 years
6	Level	P.G. / U.G. / <del>Diploma</del> / <del>Certificate</del> (Strike out which is not applicable)
7	Pattern	<del>Yearly</del> / Semester (Strike out which is not applicable)
8	Status	New / <del>Revised</del> (Strike out which is not applicable)
9	To be implemented from Academic Year	From Academic Year : 2017-2018

Date:

Signature :

Name of BOS Chairperson / Dean :

\_\_\_\_\_

## **Urban and Regional planning and its significance**

Rapid pace of urbanization has been one of the hallmarks of contemporary times. Though urban form of spatial development has been one of the most dominating spatial forms since centuries, the present scale, nature and form of urban development is drastically different and hence invites serious attention. With the advent of globalisation, there has been 'recentralisation' of 'development'. While divorcing from the earlier policies of 'decentralisation', there has been a significant policy shift in post 1980s that advocated and emphasised upon the role of megacities as 'engines of growth' and in linking and integrating the 'national' economies with the global one. Following these developments there have been various policy initiatives in urban planning in India and abroad. In fact, with increasing interaction between various economies there has been larger sharing of planning experiments and experiences. The role of global agencies also has become highly significant in the process as they are the ones who have been propagating specific capital-intensive spatial imagination shaping particular policies of urban restructuring. In Indian context too, these transformations become significant as the global planning discourse has decisively affected planning perspectives and mechanisms. The same has also introduced newer visions in urban planning. The role of the city is redefined to incorporate these newer visions. On the one hand, such incorporations are making the cityscapes more attractive and creative, on the other, the same is also bringing in stark spatio-social contradictions and inconsistencies in the pattern of urban development. Such inconsistencies have already introduced socio-cultural stratification and polarisation in urban social space leading to the whole trajectory of urban issues that revolve around the question of right to the city. Interestingly, these are not just the cities that are not getting reselected to work as global nodes but their regions too. Thus, the cities and city-regions have been envisaged as centerpieces of recent spatial development. Nonetheless, regions have received equally serious attention to that of cities as these are the vast regions that are expected to absorb the various types of older, newer and varied type of economic activities that their mother cities are supposed to perform. Especially, the peri-urban regions of megacities are undergoing massive transformations and require to have a balanced and sustainable planning approach. Thus regional development also becomes one of the most vital areas of inquiry. The rural hinterlands too are experiencing major shifts in their space-economy responding to these larger politico-economic and socio-cultural changes. At this backdrop, a deeper inquiry into various spatial forms, their planning and management is vital. As rightly commented by UN-Habitat Director Dr. John Cloke, Urban planning is an important source of development and a tool for reducing inequality (2014). The revelations suggest that the proper approach to better urban planning is ought to be holistic and integrated with equal significance given to peri-urban and rural areas. Such approach certainly provides guidelines and incentives for steering towards not only balanced pattern of regional development but also a dignified social life. Such efforts can emerge in enhanced manner only through academic and research contributions. The proposed course of Masters in Urban and Regional Planning looks forward to propose an academic deliberation that will offer a comprehensive understanding vis-à-vis regional and urban developmental issues.

## **Objectives**

The continents of Asia, Africa and Latin America are experiencing rapid pace of urbanization resulting in the development of huge urban regions. In the highly urbanized regions the main challenge is to prevent the developmental models generating negative externalities like congestion, segregation, inefficiency and insecurity. Hence it is the time to address these issues that are acting as major hurdles in the sustainable development of human settlements. It can help in achieving urban, social and economic development as well as contribute towards environmental sustainability. Through urban and regional planning, not only short term remedies are offered but also long term solutions are provided.

The job of a planner is to plan for the creation and management of the physical, economic and social elements of the urban and rural environments. A good planner would look into the equitable and just distribution of infrastructural facilities like housing and transportation, health and educational services, air and water quality, sewage and waste disposal on the one hand as a part of essential civic services. On the other, she/ he would also engage into long term planning deliberations like pattern of energy utilization, urban disaster management, sustainability and so on. Finally, a good planner would be the one who will take up specific issues witnessed in a planning region and design for a livable and inclusive form of spatial development where the issues of poverty, socio-spatial segregation, polarization and Diasporas are taken into consideration. The planner can also contribute significantly in the appropriated implementation of the newer perceptions of urban heritage and its preservation, urban tourism, gentrification, peri-urbanization, technological transience and city development. Community and area based developments, economic and employment programmes are also some of the areas where the planners can contribute significantly.

Keeping this in mind this course *Urban and Regional Planning* aims to cover

- 1) Developing a critical understanding towards the processes that are shaping various spatial forms, their planning and development
- 2) Identifying planning problems and questions in Indian context and suggesting alternative models of urban, rural, regional and community and area planning
- 3) Developing a critical understanding towards the contradictions in urban, rural and regional spaces and its implications in planning
- 4) Using primary and secondary data to address contemporary issues, planning problems and questions
- 5) Application of latest technology (GIS, GPS, etc. ) in urban and rural planning and management
- 6) Critical perceptions about research problems and research design, learn what kinds of problems planners address in day-to-day life, and recognize the role of theory in shaping both questions and research design
- 7) Exploring on the issues related to governance and urban legislation, land management, dignified and sustainable housing, urban image, urban poverty reduction, social risk prevention, adaptation and climate change mitigation, risk management for human settlements etc.
- 8) Designing and implementing a research project in response to a planning problem or questions

This course intends to give students a real world experience with urban and regional planning. By focusing on (a) selected area(s) the students will learn about the various aspects and scopes of planning as well as various socio-economic and politico-cultural aspects of urban and rural living. Issues ranging from physical building and street design issues, environmental impacts, analysis methods, legal framework, city government, politics, and community dynamics to

psychological dimensions and physical dimensions to the limit of the city and urban living. The course offers insights into regional development, rural planning and integrated regional development. During the course the students will go for field work along with activities in the laboratory/studio as part of their assignments and all that finally culminate in the preparation of a plan for the study area.

### **Essential Qualifications for Admissions**

The course looks forward to have a lively mix of students from diverse academic background and all cross-section of the society. Graduate of engineering, architecture and technology and Post-graduates from sciences, social sciences, commerce and management can join this course. In all, there will be 30 seats will be available and admission will be given as per the rules and regulations laid down by the university of Mumbai from time to time. The fee structure is as follow:

<b>Sr. No.</b>	<b>Semester</b>	<b>Fees</b>
1	Semester I& II	45000
2	Semester III& IV	45000

### **Structure of the Course:**

The course will act as a bridge for connecting citizens /civil society and decision makers as it aims at enlightening and spreading the knowledge about the processes of planning and decision making. The course aims at initiating interactions between various stakeholders that are involved in spatial planning. Especially, the dialogue between the government officials, planners, citizens and the academician and researchers will be encouraged through the course.

Through the course the students will exposed to the ongoing debates between experts, professionals and researchers in the fields of urban planning and policy and henceforth they themselves can be a participant and contribute and influence the planning process through their researches. The students will gain the know-how of planning techniques and also how to critically evaluate the existing planning techniques and processes with suggestions regarding alternative methods.

An intensive interaction with classmates and the instructor will be encouraged to produce a larger and meaningful content as the end product.

The structure of the course is based in the new pattern known as Choice Based Credit System Syllabus from the current academic year 2016-17.

#### **Choice Based Credit System Syllabus, 2016-17**

- Total No. of Credits offered: 96
- Electives on offer in a particular academic year in each group could vary.
- Semester is 15 weeks duration. Credit is defined for a semester

**Semester I : Core Courses (Four Courses)**

<b>Subject Code (326)</b>	<b>Course Title</b>	<b>Credits</b>	<b>No. of Hours</b>
101	History of Urban Space and Evolution of City Forms	4+2*= 6	60+60+ 120
102	Basic Elements of Regional and Urban Planning	4+2*= 6	60+60+ 120
103	Landuse and Landscape- Sociological and Economic Perspectives	4+2*= 6	60+60+ 120
104	Environmental Planning	4+2*= 6	60+60+ 120
105	<b>*Practical components</b> Tools and Techniques of Socio-Spatial Analysis	*	60+60+ 120
106	<b>*Practical components</b> Basic tools in urban planning and designing : Area Planning Lab	*	60+60+ 120
Total		24	720

**Semester II : Core Courses (Four Courses)**

<b>Subject Code</b>	<b>Course Title</b>	<b>Credits</b>	<b>No. of Hours</b>
201	Spatial Dynamics of Regional and Urban Development	4+2*= 6	60+60+ 120
202	Urban legislation and Governance	4+2*= 6	60+60+ 120
999203	Introduction to Municipal Budget and Finance	4+2*= 6	60+60+ 120
204	Cities and City-regions : A New Regionalism	4+2*= 6	60+60+ 120
205	<b>*Practical components</b> Computer applications and Urban Information System	*	60+60+ 120
206	<b>*Practical components</b> Project Management Tools	*	60+60+ 120
Total		24	720

**Semester III: (Two Optional Courses)**

<b>Subject Code</b>	<b>Course Title</b>	<b>Credits</b>	<b>No. of Hours</b>
301	Infrastructure Planning and Management	4+2*= 6	60+60+ 120
302	Public Policies and Citizens' Engagement	4+2*= 6	60+60+ 120
303	1) The Experience of Urban	4+2*= 6	60+60+ 120

	Regeneration – Indian Cities 2) Urban Housing and Neighbourhood Planning 3) Smart Cities and Future Urbanism 4) Urban Transportation Systems 5) Rural resource development and planning		
304	1) Inclusive, Sustainable and Resilient Cities – Global Perspectives 2) Climate Change and future planning 3) Psychological Dimensions and City Planning 4) Culture, Creativity and Planning 5) Integrated Rural Development	4+2*= 6	60+60+ 120
305	<b>*Practical components</b> City Development Plan and Regional Development Plan	*	60+60+ 120
306	<b>*Practical components</b> Geo-Informatics for Urban/Rural management	*	60+60+ 120
Total		24	720

#### Semester IV

#### 24 credits will be offered for Semester Four.

Each Student is expected to choose a research theme approved by the department and submit a thesis. The thesis will be given a weightage of 18 credits. The remaining six credits will be given for the End Exam (Viva-Voce). The general format and guidelines shall be laid down by the department. The research work is expected to contain original work.

**Note :** The practical component based on core and elective papers will be examined by external and internal examiners.

## Semester I

### 101 :History of urban Space and Evolution of City Forms

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### Unit I :The origin and growth of cities

(15)

- 1.1 Preconditions for Urban Growth – pre-industrial city -industrial revolution and its effects on European urbanism- theories of urban origins
- 1.2 Early Urban hearths-the spread of urbanism and emergence of town planning- urban revival in western Europe- emergence of medieval towns and early modern urbanism- new urbanisation
- 1.3 Industrial cities and their forms -zoning and building regulations-residential segregation- residential sorting by class-socio-spatial segregation- development of slums-housing for the urban poor
- 1.4 Post-industrial urbanism- quartering of urban space- post-industrial /postmodern cities and their changing form.

#### Unit 2 : Urbanization and urban change

(15)

- 2.1 Urbanization and economic growth- urbanization cycle- stages of differential urbanization- law of primate city
- 2.2 Stages of urban development- reurbanisation, counterurbanisation, suburbanisation, exurbanisation
- 2.3 Types of urbanised regions- city regions- conurbation- urban field- megalopolis – ecumenopolis
- 2.4 Urban change- process and underlying factors- demographic change- economic changes- functional types of cities

#### Unit 3 : Urban Land use

(15)

- 3.1 Urban morphogenesis- urban landscape -land use- buildingforms -town plan- burgage cycle- fringe belt
- 3.2 Ecological models – Central Business District- classical models- Burgess’s model- Hoyt’s model- model of Harris and Ullman- modification of the classical models- criticisms
- 3.3 Political economic perspective- Harvey’s model –circuits of capital- over-accumulation crisis and post-war suburbanization- actors in the production of built environment- growth coalitions
- 3.4 Sociological perspective- urban architecture and urban meaning- social construction of urban landscape



#### **UNIT 4 :Influence of key Architects and planners and evolution of New Towns (15)**

- 4.1 Concept- garden cities - - neighbourhood unit- Ebenezer Howard, Barlow, Abercrombie, Milton Keynes- private sector new towns- New towns in Europe and Third World-New communities - New town in U.S.- green-field-brownfield debate- green belt towns -neo-traditional planned developments- new urbanism -master planned communities
- 4.2 City beautiful movement - Chicago, New Delhi, Canberra, Berlin (Albert Speer)- CIAM and the Modern Movement, Bauhaus, Corbusier's Radiant City
- 4.3 Urban renewal and post-war reconstruction, the picturesque city-the contribution of Geddes, Mumford, Corbusier, Doxiadis and Jane Jacobs
- 4.4 Emerging concepts- Global City, Inclusive City, Liveable City, Safe City, Future City - Impact of new town movement on post-independent Indian city planning -beginning of modern town planning in India

#### **Reference :**

1. Carter, H (1972): The Study of Urban Geography, Edward Arnold.
2. A. Latham, D. McCormack, K. McNamara, D. McNeill (2009): Key Concepts in Geography, Sage.
3. Harvey, D.(1973): Social Justice and the City, Arnold
4. Abu-Lughod, J. and Hay, R. Jr. (1977): Third World Urbanisation, Maarouta Press.
5. Gugler, J. (ed.)(1988): The Urbanisation of the Third World, O.U.P
6. Sassen, S. (1991): The Global City, Princeton University Press.
7. Clarke, D. (1982): Urban Geography: An Introductory Guide, Groom Helm.
8. Marcuse, P. and Kempen, R.V. (eds.),(2000): Globalizing Cities: A New Spatial Order, Blackwell,
9. Short, J. R. (1996): The Urban Order, Basil Blackwell.
10. Smith, N. (1996): The New Urban Frontier, Routledge
11. King A. D. (1990): Global Cities, Routledge.
12. Simmonds, R. and Hack, G. (2000): Global City Regions, Spon Press.
13. Markusen, A.R., et al. (1991): Second Tier Cities- Rapid Growth beyond the Metropolis, University of Minnesota Press.
14. Allen J. Scott (ed.), (2001): Global City Regions, Trends, Theory & Policy, Oxford University Press.
15. David Harvey (1985): The Urbanization of Capital, John Hopkins University Press.
16. Edward Soja (2000): Postmetropolis, Critical Studies of cities and Regions, Blackwell Publisher Ltd.
17. G. P. Chapman, A.K. Dutt and R.W. Bradnock (ed.) (1999): Urban growth & Development in Asia, Vol.2: Living in the Cities, Ashgate Publishing Ltd.
18. Pieterse E, (2008): City Futures, Confronting the Crisis of Urban Development, Zed Books Ltd, London and New York.
19. Latham A, et.al. (2009): Key Concepts in Urban Geography, Sage, Los Angeles, London, New Delhi, Singapore, Washington.

#### **Semester I**

#### **102 Basic Elements of Regional and Urban Planning**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

**Unit 1 : Planning Theory****(15)**

- 1.1 Meaning of Planning – needs of planning –Rationales and primary functions of planning-
- 1.2 theories of planning- types and levels of Planning -Political and ideological basis of planning in different contexts
- 1.3 Concept of Region – Physical, natural, functional, administrative and other types of region
- 1.4 Regional planning - ideas, process, problems, strategies and practices

**Unit II :Human and Environmental Impacts on Regional Planning****(15)**

- 1.1 Human Impacts – urban decay – urban blight
- 1.2 Environmental Factors – environment protection and conservation- sustainable urban infrastructure – assessment of microclimate – impacts of development on environment and urban design
- 1.3 Environmental and other constraints of rural development
- 1.4 Concept of Sustainable Development – green cities and ecologically healthy cities

**Unit III :Settlement Classification****(15)**

- 1.1 Definition of Urban and Rural areas- criteria for classification
- 1.2 Rurality and Urbanism
- 1.3 Rural –urban linkage
- 1.4 Levels of urban analysis – the neighbourhood –the city –the region – the national system of cities – the world system of cities

**UnitIV :Rural and Urban Planning and Policy****(15)**

- 1.1 Rural planning – rural community development strategies -Economic Environment and policy initiatives for rural areas
- 1.2 Urban policy and planning – origin , development and goals of planning- nature of urban policy - Neighbourhoods in planning, Birth and development of the neighbourhood idea, The Indian neighbourhood, Urban renewal and its aftermath -rise of advocacy planning- role of NGOs in planning- Urban social movements
- 1.3 Post-war developments –masterplan to structure plan and beyond – urban modelling – political influences and planning -nature of Urban programmes by international agencies like World Bank, UNCHS etc.
- 1.4 Institutional arrangements of urban planning with special reference to India– edicts, laws– New Towns and IDSMT, regional contexts of metropolitan plans, - Proposals of National Commission on Urbanization

**Reference :**

1. Adair, A., J. Berry, W. S. McGreal, W. Deddis, and S. Hirst. 1999 “Evaluation of Investor Behaviour in Urban Regeneration” *Urban Studies* 36 (12): 2031–45.
2. Adams, D., and S. Tiesdell 2010. “Planners as Market Actors: Rethinking State-Market Relations and Land and Property” *Planning Theory and Practice* 11 (2): 187–207.
3. Brenner, N., and N. Theodore, eds. 2002. *Spaces of Neoliberalism: Urban Restructuring in North America and Western Europe*, Oxford: Blackwell.

4. Brenner, N., and N. Theodore. 2005. "Neoliberalism and the Urban Condition." *City* 9: 101–107.
5. Byrne, M. 2008. "Picture Puzzle Shows Princesshay Is Public—But Only up to a Point." *Express and Echo* (Exeter), January 30.
6. Callon, M. 1998. *The Laws of Markets*. Oxford: Blackwell.
7. Campbell, H. 2006. "Just Planning: The Art of Situated Ethical Judgment." *Journal of Planning Education and Research* 26(1): 92–106.
8. Campbell, H. 2012a. "'Planning Ethics' and Rediscovering the Idea of Planning." *Planning Theory* 11 (4): 379–99.
9. Campbell, H. 2012b. "Planning to Change the World: Between Knowledge and Action Lies Synthesis." *Journal of Planning Education and Research* 32 (2): 135–46.
10. Campbell, H., and S. Fainstein. 2012. "Justice, Urban Politics and Policy." In *Oxford Handbook of Urban Politics*, edited by K. Mossberger, S. E. Clarke, and P. John, pp. 545–66. Oxford: Oxford University Press.
11. Campbell, H., and J. Henneberry. 2005. "Contradictions in the Operation of the Planning Obligations System." *Journal of Property Research* 22 (1): 37–59.
12. Communities and Local Government. 2006. *Barker Review of Land Use Planning: Final Report—Recommendations*. London: Stationery Office.
13. Innes, J. 1995. "Planning Theory's Emerging Paradigm: Communicative Action and Interactive Practice." *Journal of Planning Education and Research* 14 (3): 183–91.

## Semester I

### 103 Land use and Landscape- Sociological and Economic Perspectives

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit 1 : City and Village as an organism**

**(15)**

- 1.1 Physical entity– built forms, architectural forms
- 1.2 social, economic entity and political entity
- 1.3 Objectives and scope of land use planning – compositional elements of landscape - landscape design - General pattern of land use
- 1.4 Ecological models of the city – modifications – rural settlement morphology – land uses,

#### **Unit 2 :Reading Urban and Rural landscape**

**(15)**

- 2.1 Landscape as product of Culture
- 2.2 landscape as product of and economy
- 2.3 Role of physical environment – environmental factors in landscape planning – landscape as a product of combined impact of socio-economic practices and physical environment

2.4 Spaces – hierarchy and nature -open space –typologies of open space – primary functions - designing of open space– environmental and economical benefits – impact on quality of life

### **Unit 3 :Political –Economy perspective**

3.1 Interpretation of change in urban land use – underlying structural forces

3.2 City in advanced capitalist society – laws of capital accumulation – Harvey’s model of the “circulation of the capital”

3.3 Major actors in production of the built environment – speculators – real estate agents, financing institutions

3.4 Public space –types, uses and accessibility - Privatisation of public space

### **Unit 4 : Landscape production and Patterns of consumption (15)**

4.1 Socio-spatial dialectics- different patterns of consumption by different social groups-as symbolic expressions of the values, social behavior, and individual actions of people -its link in economic patterns, social behavior- technological innovations

4.2 Regeneration and suburbanization - market segmentation and polarization of the retailing landscape – residential segregation-ghetto, slum, gated community- ethnic segregation and ethnic areas in the city.

4.3 Landscape zoning – landscape planning – natural process plans –social process plans – visual plans – landform plans – waterspace plans - Habitat plans – Air plans

4.4 Landscape evaluation techniques – critical appraisal of historic examples of landscape plans – landscape conservation – principles and techniques

### **Reference :**

1. Carter, H (1972): *The Study of Urban Geography*, Edward Arnold.

2. A. Latham, D. McCormack, K. McNamara, D. McNeill (2009): *Key Concepts in Geography*, Sage.

3. Campbell, H. 2006. “Just Planning: The Art of Situated Ethical Judgment.” *Journal of Planning Education and Research* 26(1): 92–106.

4. Campbell, H. 2012a. “‘Planning Ethics’ and Rediscovering *the Idea of Planning*.” *Planning Theory* 11 (4): 379–99.

5. Campbell, H. 2012b. “Planning to Change the World: Between Knowledge and Action Lies Synthesis.” *Journal of Planning Education and Research* 32 (2): 135–46.

6. Pacione, M. 2005, *Urban Geography*, Routledge, New York

7. Communities and Local Government. 2006. *Barker Review of Land Use Planning: Final Report—Recommendations*. London: Stationery Office.

8. Innes, J. 1995. “Planning Theory’s Emerging Paradigm: Communicative Action and Interactive Practice.” *Journal of Planning Education and Research* 14 (3): 183–91.

### **Semester I**

### **104: Environmental Planning**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

**Unit I : Ecology and Ecosystem**

**(15)**

- 1.1 Evolution of Ecology – Man and ecosphere – components of environment - Urban and rural ecosystem - approach – evolution- significance
- 1.2 fundamentals of ecosystem – its structure, function, food chain and food web , ecological pyramids –
- 1.3 Energy flows – Bio-geochemical cycling - invasion, succession –regulatory forces
- 1.4 Natural resources – definition – types and classification – resource mobilization – resource conservation –resource planning – traditional and contemporary approaches – example from India and other countries

**Unit II Ecological Balance and Environmental Degradation**

**(15)**

- 2.1 Ecological balance - impacts of advanced agriculture, industrialization, urbanization
- 2.2 Environmental degradation and pollution – heat island - pollution – types, sources
- 2.3 Climate change - global warming – ozone depletion –resource depletion -impacts on air, water, land, human health, quality of life
- 2.4 Environmental hazards and disasters – causes, types - urban disasters and their impacts- magnitude and extent

**UnitIII : Environmental Planning, Environmental Impact Assessment and Environmental Management System**

**(15)**

- 3.1 Environmental planning – types of planning – planning processes and tools –indicators of sustainability in planning and development of settlements, natural resource utilization
- 3.2 Environmental Impact Analysis - Evaluation and its parameters – procedural and administrative aspects of EIA – methods and EIA matrices and networks – techniques of assessment– appraisal
- 3.3 Environmental ethics, laws and management –principles of ecological approach to urban and regional planning –environmental design in the context of natural resource management – public awareness and accountability
- 3.4 Environmental management systems –cleaner production and cleaner technologies – energy accounting and auditing – use of alternative sources – energy policies – norms and standards of clean air and water- reuse and recycling

**Unit IV :Environmental Policies and Programmes**

**(15)**

4.1 Environmental movements – Stockholm conference – Earth Summit and Agenda 21 – Commission on sustainable development - UN climate change conferences – Key United Nations Framework Convention on Climate Change - IPCC – Copenhagen Accord - Kyoto protocol –various rounds of earth summit

4.2 Environment policies in India – British reign – modern India – Constitutional framework – Legislative framework – EIA models – statutory and administrative model role of judiciary and environmental justice – court doctrines and legislative developments

4.3 Urban Environmental Planning and Management a) Case Study 1 (world ) b) Case Study 2 (India)

4.4 Rural Environmental Planning and Management a) Case Study 1 (world ) b) Case Study 2 ( India )

### References :

1. Adams, W.M. (2001): Green Development: Environment and Sustainability in the Third World, Routledge, London.
2. Agarwal, S.K. and Dubey, P.S. (2002): Environmental Controversies, A.P.H. Publishing Corporations, New Delhi.
3. Basu, D.(ed.)(1995): Environment and Ecology – The Global Challenge, Printwell, Jaipur.
4. Calvert P.S. (1999): The South, the North and the Environment, Pinter, London and New York.
5. Ewusie, J.Y. (1980): ‘Elements of Tropical Ecology’, Heinemann Educational Books Inc. London.
6. Gupta, A. (1988): ‘Ecology and Development in the Third World’, Routledge, London.
7. Krishna, S. (1996): Environmental Politics – People’s Lives and Development Choices, Sage Publications, New Delhi.
8. Mather, A.S. and Chapman, K. (1995): Environmental Resources, Longman Group Limited, U.K.
9. Odum, E.P. (1971): ‘Fundamentals of Ecology’, Third Edition, W.B.Saunders Company, Philadelphia.
10. Smithson, P., Addison, K. and Atkinson, K. (2002): The Fundamentals of Physical Environment, Routledge, London.
13. United Nations (1971): ‘ECE Symposium on Problems Relating to Environment’, U.N., New York.
14. UNFPA (1992): ‘Population, Resources and Environment – The Critical Challenges’, United Population Fund, London.
15. Her Majesty’s Treasury. 2007. *The Economics of Climate Change: The Stern Review*. Cambridge: Cambridge University Press.
16. Catney, P., and J. Henneberry. 2012. “(Not) Exercising Discretion: Environmental Planning and the Politics of Blame-Avoidance.” *Planning Theory and Practice* 13 (4): 549–68.

## 105 : Tools and Techniques of Socio-spatial Analysis

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

### **Unit I : Data Collection, Data Presentation, Analysis and Interpretation (10)**

Primary and Secondary sources of data, Survey design, Sampling; sample designs, size, types  
Observational methods; Triangulation, Types of observation, controlled observation. Mail  
questionnaire, personal and telephone interview; Sources of various data in India Census - A  
brief introduction and nature of organization- Tabulation, Classification, Graphical methods-  
Coding and its construction

### **Unit II: Simple Descriptive statistics (25)**

Measurement, Univariate analysis - Frequency tables and graphs, Central Tendency, Dispersion,  
Distribution, Bivariate analysis - concepts of relationship; Nominal, ordinal and interval  
measures of relationship – correlation, regression – linear and non-linear – multiple regression  
and correlation – linear and non-linear – partial correlation and regression

**Probability and Sampling** - Types of probability, Why Sample?, The Population, Sampling Unit  
and Frame, Sample Size, Sample Design, Non-response errors Probability and normal  
distribution - binomial and Poisson distribution

**Time Series Data Analysis** - Time-series analysis; trend, variation, business cycles.

**Index Numbers** - Price index, Quantitative index, construction, tests, types, problems and  
specific uses

**Linear Programming** - General introduction to Linear programming Methods for maximizing,  
Methods for minimizing, Transport problem

**Measures of Association and Hypothesis Testing** - Percentage difference, Nominal and ordinal  
measure, The Chi square Test, The Z-Score Test, The T-Test, Test for Proportion

### **Unit III Socio-spatial analysis and models (25)**

**Demographic Analysis : Population Projection** - Simplex population forecasting models - The  
linear model, Exponential curves., modified exponential, Gompertz growth curve, comparative  
method, ratio method. Composite population forecasting models - The cohort- survival model,  
Migration model.

**Economic Analysis** :- Multipliers, Input-Output Analysis, Brief introduction to projection  
techniques like ratio and econometric methods, .Analysis of labour force; sectoral shifts and  
employment.

**Spatial Analysis** : Comparative analysis techniques - Specialization, Concentration and  
Independence association Gini coefficients and Lorenz curves, Spatial distribution analysis using  
centrography techniques, Rent and Gradient models, Location equilibrium of the firm -  
transport and labour orientation., Market and supply area analysis and thresholds, Pure gravity  
model, Reilly's law and mapping of trade areas - constrained and unconstrained gravity model -  
methods for parameter estimation.

**Land Use and Transportation Models** : General approaches to land use and transportation  
Forecasting , Basic sector land use models., Residential distribution models, Retail and local  
service activity location models.

## **Decision making Models : General introduction to various decisions making models**

### **References :**

1. Yeates, M. (1974): An Introduction to Quantitative Analysis in Human Geography, McGraw Hill Book Co., New York.
2. Taylor, P. J. (1977): Quantitative Methods in Geography, Houghton and Mifflin Co., Boston.
3. King, L. J. (1969): Statistical Analysis in Geography, Prentice Hall, Inc., Englewood Cliffs, New Jersey.
4. Hammond, R. and McCullagh, P.S. (1974): Quantitative Techniques in Geography: An Introduction, Oxford University Press, London.
5. Mahmood Aslam (1977): Statistical Methods in Geographical Studies, Rajesh Publications, New Delhi.
6. Cole, J.P. and King, C.A.M.(1968): Quantitative Geography, John Wiley and Sons, London.
7. Berry, B.J.L. and Marble, D.F. (1968): Spatial Analysis – A reader in statistical Geography, Prentice Hall, Englewood Cliffs, New Jersey.
8. Levin, J. (1973): Elementary Statistics in Social Research, Harper and Row, New York.
9. Norcliff, G. B. (1982), Inferential Statistics for Geographers, Hutchinson, London.
10. Wilson A. G. and Bennet, R. J., (1985), Mathematical Methods in Geography and Planning, John Wiley and Sons, New York.
11. Cressie, N., (1991), Statistics for Spatial Data, John Wiley and sons, New York.
12. Wicox, P.R. (2003), Applying Contemporary Statistical Techniques, Academic Press, Amsterdam
13. Crang M. and Cook, I. 2007, Doing Ethnographies, Sage.
14. Rogerson P.A. (2010), 3<sup>rd</sup> Ed. Statistical Methods for Geography, a Students Guide, Sage.
15. Vallentine G. Clifford N. (2010), Key Methods in Geography, Sage
16. Berry, B.J.L. and Marble, D.F. (1968): Spatial Analysis – A reader in statistical Geography, Prentice Hall, Englewood Cliffs, New Jersey.

## **Semester I**

### **106 Basic tools in urban planning and designing: Area Planning lab**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

**Unit I : Perception Studies and mental mapping** - Various components of existing urban and suburban and rural areas (eg, housing typology and layouts, building and population densities, streets, junctions, open spaces and its hierarchy, heritage buildings, etc) will be studied – will include field visits followed by report writing.

**Unit II :Area Planning Problem**– any study area from the urban unit or rural unit can be selected for

a) *Data collection and analysis*- Identification of Problems and Design Issues – to be addressed for the planning of that area.



b) *Conceptual Plan* - Objectives and design parameters of the proposed development - Site analysis- Linkages of the study area with the city - Physical layout plan indicating the broad land use (residential, commercial, open spaces, industrial, institutional, etc).

c) *Circulation plan* Major infrastructure services - data tables and charts

d) *Master Plan* -Detailed land use - Detailed circulation plan with all levels of roads - Detailed infrastructure plan - Block cost estimates - Options of implementation strategy

e) *Final Plan*—refining the master plan which is related to governing the physical character of the plan -organisational arrangements for development - supporting financial analysis.

### **Unit III :Rural Area Planning**

Life and living of people in a village - study of a particular village - primary survey - research methodology - techniques of data collection. - identify the problems of rural life and evolve a strategy for the overall short and long term development of the village.

a) Demographic features b) Employment and Asset Structure - Nature of employment, land ownership, tenancy c) Agriculture and Allied Activities – total area, land use, Cropping pattern, irrigation, finance, marketing, Agriculture-labour, etc d) Social and Cultural Issues – Caste system, stratification, housing, settlement pattern, location of facilities, etc. e) Institutions – Panchayat, Mahila Mandal, Credit Co-operative, Bank, Schools, Medical, NGOs, etc. f) Government Programmes—Rural Development programmes like IRDP, JRY, rural housing schemes, road and drinking water related schemes g) Different schemes and its impacts h) Village Level Amenities and Linkage - List of existing amenities, distance for non-available amenities, transportation and related issues i) Energy utilization pattern - Source of energy, future prospect j) Peoples' perception, recent changes and development in the village and surrounding area.

---

## **SEMESTER II**

### **201 Spatial Dynamics of Regional and Urban Development**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I – Theories of Development and Underdevelopment**

**(15)**

1.1 Concepts of development and growth - Indicators of development –Ingredients of development - Economic base of cities and regions, Basic concepts of economic resources -

Basic concepts in macro-economic and economic analysis - Economics of scale and external economics.

- 1.2 Theories of development - Role of cities in regional and national development –Friedman and Myrdal – Top-down and bottom-up approaches and concepts of integrated regional development - classical and neo-classical theories of urban and regional development
- 1.3 Theories of under development - Dependency, imperialism – World system approach – hierarchical placements and positioning of regions and spatial forms
- 1.4 Dichotomy of North-South, Rich-Poor -Third world urbanization – Metropolitan Dominance and hegemony – patterns of urban and regional development and disparities

## **Unit II : Capital, city and development**

**(15)**

- 2.1 Critical links between capital and cities –feudal, industrial and financial capital -Theoretical Foundations - Historical, Sociological and Spatial Roots -Perspectives on Cities -
- 2.2Lefebvre and Production of Space – Dialectics of urban space –Neo-Marxists and cultural theorists including Castells, Harvey, Logan, Molotch and Zukin - Cities of Global North and Global South
- 2.3 The city and hinterland interconnections – Jefferson’s perspective on the interrelationship between city and region – role of capital in the regional development - Raymond Williams and the dialectics of *The Country and The city* – the changing nature between the city and the country – experience of Global North and Global South
- 2.4 Neoliberalism and Financialisation of capital – flexibalisation of capital investments and flows - neoliberal policies and newer spatial imaginations - networked global economy - remaking of future cities and regions

## **Unit III - The Urban Divide**

**(15)**

- 3.1 cities as places and spaces of inequalities - Sociological theories of conflict v solidarity - Theoretical perspectives of Marx, Weber and Durkheim inequalities and social conflicts
- 3.2 Socio-spatial segregation –theories of social segregation – experiences of cities in global south –urban poverty and living in ghettos- urban informality and inequality
- 3.3Politics of place and space – spatial identities and politics of accessibility –class conflicts-claims and counterclaims over the urban space
- 3.4 Neoliberal urban planning – urban restructuring and renewal– gentrification - shifting attitudes towards cities and city-regions – Global city theory –supportive and countering perspectives and its impact on planning visions – Global City-Regions

## **Unit IV - Challenging the System - Urban Social Movements and Inclusive Development(15)**

- 4.1 History of the labor movement, civil rights movement and environmental justice movements – its role in shaping urban landforms – resultant city forms
- 4.2 Right to the city – gender and city - women’s movement–Children and public spaces – differentially abled people and city planning - Benjamin and occupancy urbanism –new urban social movements -use insurgent practices to challenge place based inequalities
- 4.3 City-regions – city as an exploitative regime for its region - people’s movements and resistances – examples from Global South

4.4 Neoliberal policies - participatory approach – stakeholders - citizens’ forum and pressure groups - The changing metropolis - Case studies

**References:**

1. Harvey, D. (1982): *The Limits to Capital*, Basil Blackwell.
2. Johnston, R.J. and Taylor, P.J. (eds)(1986): *A World in Crisis*, Basil Blackwell.
3. Forbes, O.K. (1984): *The Geography of Underdevelopment*, The Johns Hopkins University Press
4. Brewer, A. (1980): *Marxist Theories of Imperialism*, Routledge and Kegan Paul.
5. Pacione, M. (1988): *Geography of the Third World*, Routledge.
6. Coates, B. E., Johnston, R. J. and Knox, P.L., (1977): *Geography and inequality*, Oxford University Press.
7. Taylor, M. J. and Thirst, N. J., (1981): *The Geography of Multinational Corporations*, Vol.I and II, Croom Helm.
8. Banerjee-Guha, S., (1997): *Spatial Dynamics of International Capital*, Orient Longman.
9. Armstrong, W. and McGee, T.G., (1985): *Theatres of Accumulation*, Methuen.
10. Frank, A.G., (1978): *Dependent Accumulation and Underdevelopment*, The MacMillan Press, London.
11. Mather, A.S. and Chapman, K., (1995): *Environmental Resources*, Longman Scientific and Technical.
12. Potter, R.B., Binns, T, Elliott, J.A. and Smith, D., (1999): *Geographies of Development*, Longman.
13. AmitBhaduri, (2006): ‘Development with dignity A case for full employment’, National book trust of India.
14. Andre Gunder Frank, (1975): ‘On capitalist Underdevelopment’, Oxford University Press.
15. Caroline Thomas and Peter Wilkin (ed.) (1997): ‘Globalization and South’, Macmillan Press Ltd.
16. Desai Vandana and Potter B. Robert, (eds.) (2011): ‘The Companion to Development Studies’, AHodder – Viva Edition, London.
17. Power Marcus, (2003): ‘Rethinking Development geographies’, Routledge, London.
18. Summer Banks, *Developmental Geography*, (2010): Apple Academic press.
19. Stuart Corbridge, 1995, *Development Studies A Reader*, Arnold.
20. George Ritzer, 2010: *Globalization – A Basic Text*, Wiley-Blackwell
21. R.J. Johnston, Peter J. Taylor and Michael J. Watts, (eds.) (2002): *Geographies of Global Change*, Blackwell Publishing

**Semester II**

**202 :Urban legislation and Governance**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

**Unit I – Introduction to basic concepts**

**(15)**

- 1.1 Evolution of Planning legislation in India - An overview of legal tools connected with urban planning and development, Town and country planning act
- 1.2 Economic concept of land - economic principles of land use - economic rent land use pattern and land values - location economics - financial balance sheet of land development – Land and its different uses
- 1.3 Registration of land and land record procedure - factors influencing land value - assessment and prediction of land value and its prices - economics of Town Planning decisions effects of legislation on land development and urban land economics.
- 1.4 Institutions and Urban planning - Typology of institutions - their role, powers and significance (legal, political, social, cultural and economic institutions), formal and informal institutions – their interface, conflicts, classified work, and their effectiveness in planning: Analysing the institutions: Methods, process and evaluation.

## **Unit II – Urban Legislation and Land regulations**

**(15)**

- 2.1 Introduction to laws, basic concepts - law, legislation, ordinance bill, act, regulations and bye-laws - sources of law (i.e. custom, legislation and precedent) - Judiciary, legislature and executive powers and rule of law - its relationship to urban planning – Hierarchical System of governance and planning – Central, State and Urban Local Bodies – Consequences vis-à-vis urban planning
- 2.2 Legislation related to use and control of land - Land Acquisition Act of 1894 – Interpretation of LAA in recent times - Betterment charges and compensation provisions in various planning laws; and judicial precedents - Valuation of real estate - concept of ownership - rights and associated features
- 2.3 Legislation controlling use of land parcels like non-agricultural permissions, building permission - use of permissions, etc. Significance of land development control objectives and legal tools
- 2.4 Zoning law relating to slum clearance, housing, landscape and traffic. Approach for formulating rules and bye-laws Policies, laws, acts pertaining to urban land, ceiling on urban land and property, Urban land (ceiling and regulations) act, 1976 - differences in the interpretation across the states and important provision, problems.

## **Unit III : Housing and Planning regulations and laws**

**(15)**

- 3.1 Housing related legislation – residential cooperative housing societies - other forms like non-trading corporations - Slums related legislation – commonalities and variations across the Indian states - Important sections - their implications - Planning law and the poor
- 3.2 Legislation on related to property transactions (Transfer of Property Act, Income Tax related, etc.) - India and overview of framework of rules regulations and provisions made in the ITPI chapter – Detailed understanding of Urban Planning and Development Authorities Acts – Procedures and methodology of preparation and implementation of regional plans.
- 3.3 Legislation relating to urban conservation and restoration, heritage, architecture - archaeological sites – and remains of National importance.
- 3.4 Environmental Laws and Urban Planning - National Environmental Policy Act Pollution Control Acts - Air, Water and EP Acts - A critical appraisal – Urban Environment and related regulations – wetlands, CRZ, etc – Sustainable Urban development – Problems and Prospects

#### **Unit IV :Recent Trends in Urban Planning and Legislation**

**(15)**

- 4.1 Characteristics and features of neoliberal urban planning – Impact on urban legislation – detailed account of amendments and modifications - Neoliberal urban governance – forms and structures – modus operandi - its explicit implications
- 4.2 73rd and 74th Constitutional amendments - environment and the modified role and functions of local bodies, local authorities, district - authorities and state level agencies - The institutional frame and mechanism for urban governance as envisaged in 73rd and 74th CAA -Transfer of Power from Centre to State and State to Local government - role of the existing planning and development agencies in various states - role of various institutions in the process of governance and access to government by various stakeholders
- 4.3 Redefined role of other Stakeholders - NGOs, Private Sector, Scientific Network and international institutions –Role of donor agencies - Advanced Locality Management, Resident Welfare Associations, elite groups, industrial and commerce chambers as pressure groups – their role in governance system. Role of People’s participation in planning process - inclusion and exclusion in urban governance - E- Governance and Grievances Redressal system.
- 4.4 Impact of amendments on various sections of urban economy and Society- CaseStudies

#### **Reference :**

1. Carrithers, D. F., and D. Peterson. 2006. “Conflicting Views of Markets and Economic Justice.” *Journal of Business Ethics* 69:373–87.
2. Christensen, K. 1985. “Coping with Uncertainty in Planning.” *Journal of the American Planning Association* 51 (1): 63–73.
3. Commission of the European Community. 1999. *European Spatial Development Framework (ESDP)—Towards Balanced and Sustainable Development of the Territory of the EU*. Luxembourg: Office for Official Publications of the European Communities.
4. Mäntysalo, R., and I. Saglie. 2010. “Private Influence Preceding Public Involvement: Strategies for Legitimizing Preliminary Partnership Arrangements in Urban Housing Planning in Norway and Finland.” *Planning Theory and Practice* 11 (3):317–38.
5. Marcuse, P., J. Connolly, I. Olivo Magana, J. Novy, C. Potter, and J. Steil, eds. 2009. *Searching for the Just City*. New York: Routledge.
6. Marquand, D. 2004. *Decline of the Public: The Hollowing Out of Citizenship*. Cambridge: Polity Press.
7. McMaster, R. 2002. “The Analysis of Welfare State Reform: Why the ‘Quasi-markets’ Narrative Is Descriptively Inadequate and Misleading.” *Journal of Economic Issues* 36 (2): 769–94.
8. Miller, M. 1998. *Princesshay Exeter: Concept, Development and Context*. Report commissioned by English Heritage.
9. O’Neill, O. 2000. *Bounds of Justice*. Cambridge: Cambridge University Press.
10. Osborne, D., and T. Gaebler. 1992. *Reinventing Government*. New York: Plume.

11. Peck, J. 2003. "Geography and Public Policy: Mapping the Penal State." *Progress in Human Geography* 27 (2): 222–32.
12. Peck, J., N. Theodore, and N. Brenner. 2010. "Postneoliberalism and Its Malcontents." *Antipode* 41 (1): 94–116.
13. Sager, T. 2013. *Reviving Critical Planning Theory: Dealing with Pressure, Neo-liberalism and Responsibility in Communicative Planning*. Routledge: Abingdon.
14. Sandel, M. 2009. *Justice: What's the Right Thing to Do?* London: Allen Lane.

## Semester II

### 203 : Introduction to municipal Budget and Finance

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I : Municipal Tax System (15)**

- 1.1 Evolution of Municipality tax system – basic structure and elements
- 1.2 Variations in the tax related regulations and norms as per the municipal categories-  
Municipal tax structure for resource mobilization
- 1.3 Main sources of revenue for local authorities: property tax, issues and imperatives - variations
- 1.4 Municipal councils and municipal corporations – case studies

#### **Unit II :Financial Planning (15)**

- 2.1 Financial Planning and techniques - Public finance and resource mobilization: Some basic principles
- 2.2 Review of centre, state and local financial relationships – fiscal and financial freedoms - limitations – role of finance commission - procedures and method of financing
- 2.3 Review of accounting practises, budgetary procedures for capital works - Policies and procedure for raising financial resources
- 2.4 Techniques of monitoring the development of specific works - standard oriented costs control, turnkey system, vertical production method, inventory cost control techniques, and unified status, index techniques -

#### **Unit III : Municipal Budget (15)**

- 3.1 Annual operating budget - capital budget - the enterprise or utilities budget - Revenues local government budgets - own source, external, debt - Tax and non-tax sources of revenues
- 3.2 Income and expenditure categories - Classification of budgets and accounts of municipalities - budget cycle - institutional responsibility for creating a data base on the finances of municipalities.

3.3 Municipal Budgeting and Financial Reporting System: An Overview - Municipal Budget Classification and Budget Formats - The Finances of Municipalities A Statistical Profile - Municipal Finance Data System

3.4 Key Financial indicators - Conditions for alternation and approval of Municipal Budgets

**Unit IV Impact of Financial Reforms on Urban Finance (15)**

4.1 Property Tax Reforms, Accounting Reforms - Credit Rating of Bonds - Pooled Financing of projects: Standards and regulations.

4.2 Financial capital – capital and financial reforms – privatization, liberalization and structural reforms - foreign direct investments

4.3 Mandate for Public Private Partnership model of investments, Contract Architecture, Public Private Partnership Design and execution – sharing of responsibilities and accountabilities – legal aspects

4.4 Critical evaluation of policy initiatives like JNNURM, AMRUT, Smart City paradigm – impact on municipal finance

**References:**

1. Bagchi, S (2000): Financial Implications of Decentralisation: Issues Concerning Resource Mobilisation by Urban Local Bodies; *ArthVijnana* Vol.XLII; No.4.

2. Bagchi, S (2001): Financing Capital Investments in Urban Infrastructure: Constraints in Accessing Capital Investments in Urban Basic Services; *Economic and Political Weekly*; Vol.XXXVI; No.4.

3. Bagchi, S (2001): Private Provision of Public Utilities: Some Issues and Evidences from Indian Water and Sanitation Sector; *Nagarlok*; Vol.XXXIII; No.3.

4. Bahl, Roy. W (1998): Implementation Rules for Fiscal Decentralisation; Paper presented at the International Seminar on Land Policy and Reform; Taiwan Institute of Land Policy.

5. Bahl, R.W and J.F.Linn (1992). Urban Public Finance in Developing Countries, A World Bank Book, OUP Publication, New York.

6. Bennet, R (1994): “An Overview of Development in Decentralisation” in Robert Bennet (ed.) Local Government and Market Decentralisation: Experiences in Industrial, Developing and Former Eastern Block Countries; United University Press, Tokyo, New York and Paris.

7. Blore, I.C (1991): Calcutta: Two Small Municipalities in a Large Metropolis; Institute of Local Government Studies; University of Birmingham.

8. Aguilar L. (2015), Statement on Making the Municipal Securities Market More Transparent, Liquid, and Fair, U.S. Securities and Exchange Commission

9. Asian Development Bank (2003), Local Government Finance and Bond Markets, Edited by Yun-Hwan Kim

10. CARE Ratings (2012), Urban Local Bodies and potential for Municipal Bond Market

11. Chakrabarti, M. (2014), Municipal Bond Market in India, Indian Journal of Applied Research, Volume 4, Issue 3, ISSN - 2249-555X

12. Government of India (2003), Policy Option Paper for Framing Municipal Law in India, Ministry

of Urban Development & Poverty Alleviation, Part IV: Municipal Revenue, Sources of Internal Revenue

13. Government of India (2006a), Population Projections for India and States 2001-2026, Report of the Technical Group on Population Projections constituted by the National Commission on Population, Census of India 2001
14. Government of India (2006b), Training Module on Audit of Urban Local Bodies, Comptroller & Auditor General of India, Regional Training Institute, Kolkata
15. Government of India (2007), National Municipal Accounting Training Manual for Elected Representatives and Top Management, Ministry of Urban Development, Supported by Office of The Comptroller & Auditor General of India, National Institute of Urban Affairs (NIUA) and USAID (FIRE-D) Project.
16. Government of India (2009), Thirteenth Finance Commission (2010–2015), Finance Commission, India.
17. Government of India (2010), Report of the Committee on Slum Statistics/Census, Ministry of Housing and Urban Poverty Alleviation, National Buildings Organisation.
18. Government of India (2011), Report on Indian Urban Infrastructure and Services, The High Powered Expert Committee (HPEC) for Estimating the Investment Requirements for Urban Infrastructure Services.
19. Government of India (2012), Report of the Sub-Committee on Financing Urban Infrastructure in the 12th Plan, High Level Committee on Financing Infrastructure, Ministry of Urban Development.
20. Government of India (2013a), 20th Conference of Central and State Statistical Organisation, 10-11 January 2013.
21. Government of India (2013b), Planning Commission, Twelfth Five Year Plan (2012–2017), Economic Sectors, Volume II.
22. Khan, H.R. (2013), Financing Strategies for Urban Infrastructure: Trends and Challenges, Inaugural address at the Conference on Financing Strategies for Urban Infrastructure organized by the Centre for Advanced Financial Research and Learning, Mumbai.
23. National Institute of Public Finance and Policy (NIPFP, 2011), Municipal Finance Matters: India Municipal Finance Report (ADB TA 7334 IND).
24. National Institute of Urban Affairs (NIUA, 2002), Pooled Financing Structures for Financing Urban Infrastructure Projects of Small and Medium Urban Local Bodies, Quarterly Newsletter of the NIUA, Vol. 5, No. 1, Urban Finance.
25. Rao, N.R. (1986), "Municipal finance in India: Theory and Practice", Inter-India Publications. Reddy, Y.V. (2015), Fourteenth Finance Commission, Continuity, Change and Way Forward, Economic & Political Weekly, May 23, 2015 Vol L no. 21.
26. Reserve Bank of India (RBI, 2007), Municipal Finance in India: An Assessment, Development Research Group, Department of Economic Analysis and Policy, Mumbai.



## Semster II

### 204 : Cities and City-regions : A New Regionalism

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I : Evolution of City and Region interrelationship (15)**

- 1.1 The interrelationship between regions and cities – backward and forward linkages and reciprocity – various theoretical perspectives
- 1.2 Evolution of concept of metropolitan region – composition of metropolitan region – functional and positional hierarchy – historical background of development
- 1.3 Metropolitan regional organisation and planning – dispersal and decentralisation policies – industrial, population dispersal and planning regional growth
- 1.4 Planning of early metropolitan regions – case studies from Western and Eastern countries

#### **Unit II : Evolution of Metropolitan Regions in India (15)**

- 2.1 Evolution of metropolitan regions in India – various processes and forces influencing the metropolitan development - historical background of colonization and regional imbalance
- 2.2 Rhetoric of 'overurbanisation' - Metropolitan regional development and planning in India - Five Year Plans and urban and regional planning – establishment of various metropolitan regional development agencies (1970s & 1980s)
- 2.3 Establishment of metropolitan regional planning agencies – influence of various metropolitan regional plans – twin towns policy of London – Industrial Location Policy of South Korea – Finger Plan of Copenhagen
- 2.4 First metropolitan regional development plans- Delhi, Mumbai and Calcutta metropolitan regional development plans – important features and policy initiatives undertaken

#### **Unit III : Critical Evaluation of Regional Development Policies (15)**

- 3.1 Impact of regional plans on urban and regional planning
- 3.2 Schemes for development of small and medium cities – successes and failures – impact on regional development
- 3.3 Impact of regional plans on the inner and outer peripheries – influence of economy, society and culture – status of infrastructure and other services – the dichotomy - city vs. peripheries - Critical evaluation of regional development policies – Mumbai, Delhi, Calcutta
- 3.4 Seventh Five Year Plan and sifting perspectives on cities and regions – globalization, liberalization and changing planning visions

#### **Unit IV : Emergence of Global City-Regions (15)**

- 4.1 Transformed role of cities – cities as nodes in global economy
- 4.2 making of global/ globalizing cities – transformation of city-regions into global city-regions
- 4.3 The draft regional plans – vision documents – Status of inner and outer peripheries
- 4.4 Transformations in the space-economy of inner and outer peripheries – contradictions and stress – Future planning

**Reference :**

1. Abdul Razak, M. (2004) Mobility patterns and strategies used for spatial access to work of the squatter households in the peri-urban Delhi, India. Paper presented at the International Workshop on 'Peri-urban Dynamics', National University of Singapore, December.
2. Abu-Lughod, J. L. (1999) New York, Chicago, Los Angeles: America's Global Cities. Minneapolis, MN: University of Minnesota Press.
3. AILSG (All India Institute of Local Self Government) (2004) Transforming Mumbai into a world class city. AILSG, Mumbai.
4. Banerjee-Guha, S. (1997) Spatial Dynamics of International Capital. Hyderabad: Orient Longman.
5. Banerjee-Guha, S. (2002a) Metropolitan dominance and regional disparity in India: observations from relevant planning measures of Japan, Visiting Research Fellow Series No. 358, Institute of Developing Economics, Japan External Trade Organization.
6. Banerjee-Guha, S. (2002b) Shifting cities: urban restructuring in Mumbai, Economic and Political Weekly, pp. 121–128.
7. Banerjee-Guha, S. (2008) Space relations of global capital and significance of new economic enclaves: SEZs in India, Economic and Political Weekly, 43(47), pp. 51–61.
8. Beaverstock, J. V., Smith, R. G. and Taylor, P. J. (1999) A roster of world cities, Cities, 16, pp. 445–458.
9. Cadene, P. and Marius-Gnanou, K. (2004) Periurban dynamics: around the Indian metropolises: some findings from the Chennai experience, Paper presented at the International workshop on 'Peri-urban Dynamics', National University of Singapore, December.
10. CIDCO (City and Industrial Development Corporation of Maharashtra) (1973) A report on the development of New Bombay, Bombay
11. D'Monte, D. (2002) Ripping the Fabric: The Decline of Mumbai and Its Mills. New Delhi: Oxford University Press.
12. Dea'k, C. and Schiffer, S. (2007) Sa' Paulo: the metropolis of an elite society, in: K. Segbers (Ed.) The Making of Global City Regions: Johannesburg, Mumbai/Bombay, Sa' Paulo, and Shanghai, pp. 85–112. Baltimore, MD: Johns Hopkins University Press.
13. Dupont, V. (2004) Peri-urban dynamics: population, habitat and environment on the peripheries of large Indian metropolises. Introductory paper at the International Workshop on 'Periurban Dynamics', National University of Singapore, December.
14. Dupont, V. (2005) Peri-urban dynamics: population, habitat and environment on the peripheries of large Indian metropolises: review of concepts and general issues. Occasional Paper No. 14, Centre de Sciences Humaines, New Delhi.
15. Friedmann, J. (1995) Where we stand: a decade of world city research, in: P. L. Knox and P. J. Taylor (Eds) World Cities in a World-system, pp. 21–47. Cambridge: Cambridge University Press.

16. Harvey, D. (1989) *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Blackwell: Oxford.
17. Jacobi, P. (1997) Two cities in one: diverse images of Sa~o Paulo, in: K. Segbers (Ed.) *The Making of Global City Regions: Johannesburg, Mumbai/Bombay, Sa~o Paulo, and Shanghai*, pp. 279–294. Baltimore, MD: Johns Hopkins University Press.
18. Krishnakutty, M. and Burte, H. (2004) Defining the urban fringe through population mobility: the case of Madhapur and its information technology (HITECH City—Hyderabad). Paper PERI-URBAN CHANGE IN MUMBAI 17 Downloaded from [usj.sagepub.com](http://usj.sagepub.com) at Glasgow University Library on January 30, 2014 presented at the International Workshop on 'Peri-urban Dynamics', National University of Singapore, December.
19. Lefebvre, H. (1991) *The Production of Space*, transl. by Smith D. N. Cambridge, MA: Blackwell.
20. Mabin, A. (1997) Johannesburg: (South) Africa's aspirant global city, in: K. Segbers (Ed.) *The Making of Global City Regions: Johannesburg, Mumbai/Bombay, Sa~o Paulo, and Shanghai*, pp. 32–63. Baltimore, MD: Johns Hopkins University Press.
21. McGee, T. G. (1971) *The Urbanization Process in the Third World*. London: Bell and John.
22. MMRDA (Mumbai Metropolitan Region Development Authority) (1995) Draft regional plan for Bombay metropolitan region 1996–2011. MMRDA, Mumbai.
23. Myrdal, G. (1966) *Economic Theory and Underdeveloped Regions*. London: Charles Duckworth & Co.
24. Oliveal, S. (2005) Peri-urbanisation in Tamil Nadu: a quantitative approach. Occasional Paper No. 15, Centre de Sciences Humaines, New Delhi.
25. Parnell, S. (1997) Politics of transformation: defining the city strategy in Johannesburg, in: K. Segbers (Ed.) *The Making of Global City Regions: Johannesburg, Mumbai/Bombay, Sa~o Paulo, and Shanghai*, pp. 139–168. Baltimore, MD: Johns Hopkins University Press.
26. Patnaik, U. (2007) Neoliberalism and rural poverty in India, *Economic & Political Weekly*, 42(30), 28 July.
27. Petrella, R. (1995) A global agora vs. gated city regions, *New Perspectives Quarterly*, Winter, pp. 21–22.
28. Robinson, J. (2002) Global and world cities: a view from off the map, *International Journal of Urban and Regional Research*, 26, pp. 531–554.
29. Sassen, S. (1991) *The Global City: New York, London, Tokyo*. Princeton, NJ: Princeton University Press.
30. Scott, A. J. (2001) *Global City-regions: Trends, Theory, Policy*. Oxford: Oxford University Press.
31. Segbers, K. (Ed.) *The Making of Global City Regions: Johannesburg, Mumbai/Bombay, Sa~o Paulo, and Shanghai*. Baltimore, MD: Johns Hopkins University Press.

## **Semester II**

### **205 : Computer Applications and Urban Information System**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

### **Unit I : Basic Cartography**

Map Elements – Scale, Direction, measurements - Design as a plan of Execution - goals of cartographic Design – clarity, order, balance, contrast, unity and harmony

Formulating the plan - Purpose of the map, topic, format, scale, audience, production and Reproduction of the map

Cartographic Design Principals – legibility, visual contrast, figure-ground contrast, hierarchical organisation

### **Unit II : Fundamentals of Remote Sensing**

Concept of remote sensing - aerial & satellite remote sensing - principles of aerial remote sensing - Aerial photo-interpretation – photogrammetry, stereovision, measurement of heights/depths by relief displacement and parallax displacement - principles of satellite remote sensing, spatial, spectral, temporal resolutions - applications in planning, population estimation, identification of squatter/unauthorized areas, sources of pollution, vegetation, solid waste management, etc.

### **Unit III : Introduction to the basic concepts of GIS**

Introduction to basic ArcGIS functions - Databases for GIS - concepts, error modeling and data uncertainty, decision making through GIS - GIS Data Structures - Querying, selecting, joining, and calculating data - Census Data for GIS & GIS data and analysis for planning and public policy - Mapping Data & Data acquisition and preparation - Creating and Editing GIS data, Geocoding - vector data structure and algorithms, raster data structure and algorithms - Georeferencing - Scale, Projection and Coordinate Systems - Spatial data processing - National Urban Information system

### **Unit IV : Analysis with GIS**

Spatial distribution of select elements like population - Change detection using vector and raster data – site suitability analysis using GIS - Location-Allocation Problems – spatial distribution of basic infrastructural facilities – critical evaluation – practical solutions

### **References :**

1. Robinson, A. H. and Others (1995): Elements of Cartography, VI Edition, John Wiley & Sons, New York.
2. Anson, R. W. and Ormeling, F. J., (Ed.) (1993): Basic Cartography for Students and Technicians, Vol.I, International Cartographic Association and Elsevier Applied Science Publishers, London.
3. Dickinson, G. C. (1977) Statistical Mapping and the Presentation of Statistics, Edward Arnold Ltd., London.
4. Monkhouse, F. J. and H. R. Wilkinson, (1971): Maps and Diagrams, Methuen & Co. Ltd., London.
5. Agrawal, N.K.(2006), Essentials of GPS (Second Edition), Book Selection Centre, Hyderabad
6. American Society of Photogrammetry (1983): Manual of Remote Sensing, ASP Palis Church, V.A.
7. Barrett, E.G. and Curtis, L.F. (1992): Fundamentals of Remote Sensing in Air Photo-interpretation, McMillan, New York. 7.
8. Bernhardsen, Tor (2002): Geographical Information Systems: An Introduction, Third Edition, John Wiley & Sons, Inc., New York.

9. Burrough, Peter A and McDonnell, R.A. (1998): Principles of Geographical Information Systems, Oxford University Press, Mumbai.
10. Campbell. J. (1989): Introduction to Remote Sensing, Guilford, New York.
11. Clarke, Keith C. (1998): Getting Started with Geographic Information Systems, Prentice-Hall Series in Geogl. Info. Science, Prentice-Hall, Inc. N.J.
12. Curran, Paul, J, (1988): Principles of Remote Sensing, Longman, London.
13. Heywood, I.et al (2002): An Introduction to Geological Systems, Pearson Education Limited, New Delhi.
10. Iliffe, J.C (2006), Datums and Map Projections for Remote Sensing, GIS and Surveying, Whittles Publishing, New York.
11. Jonson. R. J. (2003): Remote Sensing of the Environment-An Earth Resources Perspective, Pearson Education Series in Geographical Information Science, Keith C. Clarke (Series editor) Pearson Educators Private Limited. (Singapore), New Delhi.

## **Semester II**

### **206 Project Management Tools**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

- Unit I : Basic Concepts in Project Management (15)**  
 Project – Project life cycle – scale, scope and nature of the project – various elements in project planning – finance – economics – institutional arrangements – feasibility report
- Unit II : Technical and Financial Appraisal (15)**  
 Materials required – infrastructure – technical feasibility - factors of production – scheduling and phased installation of the project  
 Financial planning and fund raising – techniques of financial appraisal - financial sustainability – risks and viability – Internal Rate of Return and sensitivity analysis
- Unit III- Economic and Social Appraisal (15)**  
 Effective pricing – market distortions – capital investments and per capita returns – risk calculations – Methods of Risk calculation and apprehension – Capital Asset Pricing Model – Decision Tree Analysis and other models – Economic Rate of Returns  
 Social dimensions and impact assessment – calculating social cost – cost of rehabilitation and redevelopment - Use of social assessment methods: PRA, SARAR, Social-Cost-Benefit Analysis, UNIDO and Returns (SRR)
- Unit IV - Environmental and Institutional Appraisal (15)**  
 Identifying the impact on various environmental elements - environmental costs – Environmental Impact Assessment - replacement cost, bequest pricing, hedonic pricing, contingent valuation, land values, preventive/mitigation expenses, benefit transfers, productivity changes.  
 Capacity Enhancement Need Assessment (CENA) - various aspects of institutional appraisal – Policies and legality

## References :

1. "Introduction to Project Management Skills". [http://www.mindtools.com/pages/main/newMN\\_PPM.htm](http://www.mindtools.com/pages/main/newMN_PPM.htm). Last update time unknown. Accessed Nov. 2, 2002.
2. The Numbers Group. "Project Management". <http://www.snc.edu/socsci/chair/333/numbers.html>. Last update time unknown. Accessed Nov. 4, 2002.
3. "What is Project Management?". [http://www.esi\\_intl.com/Public/projectmanagement/whypm.asp](http://www.esi_intl.com/Public/projectmanagement/whypm.asp). Last update time unknown. Accessed Nov. 4, 2002.
4. "Project Management Techniques". [http://www.tifb.state.tx.us/Handbooks/Project\\_Management.htm](http://www.tifb.state.tx.us/Handbooks/Project_Management.htm). Last update time unknown. Accessed Nov. 4, 2002.
5. "Project Management Tools". <http://www.dbm.state.md.us/mdplan/apdx-bt.htm>. Last update time unknown. Accessed Nov. 6, 2002.
6. Georgia State University - CIS 330. "Project Management". <http://www.cis.gsu.edu/~dtruex/courses/cis330/cis330PDF/wk7/ProjMgtp.pdf>. Last update time unknown. Accessed Nov. 6, 2002.
7. NetMBA. "PERT". <http://www.netmba.com/operations/project/pert>. Last update time unknown. Accessed Nov. 6, 2002.
8. The Gantt Group. "Using Gantt Charts". <http://204.144.189.70/index.htm>. Last update time unknown. Accessed Nov. 6, 2002.
9. Trepper, Charles H. "A Project Management Primer". [http://www.aisc.com/us/lang\\_en/press\\_room/in\\_the\\_news/adtMag\\_August01.pdf](http://www.aisc.com/us/lang_en/press_room/in_the_news/adtMag_August01.pdf). Last update August 2000. Accessed Nov. 6, 2002.
10. Vanhooren, Axel. "Project Management". [http://itprojmngt.8m.net/projman/pm\\_what.html](http://itprojmngt.8m.net/projman/pm_what.html). Last update time unknown. Accessed Oct. 31, 2002.
11. Adams, John R. "Principles of Project Management". (c)1997 by the Project Management Institute.
12. Craig, H Kent. "PM 101: Assess Your Aptitude, Mindset, Potential." *Contractor*. Sep. 2002. Vol. 49. Issue 9.
13. Crawford, J Kent; Pennypacker, James S. "Put an End to Project Management". *Optimize*. Oct. 2002. Pages 73-78.
14. Friedlein, Ashley. "Web Project Management". (c)2001 by the Presentation Company Limited. Morgan Kaufmann Publishers.
15. Hartman, Francis; Ashrafi, Rafi A. "Project Management in the Information Systems and Information Technologies Industries." *Project Management Journal*. Sep 2002. Vol. 33. Issue 3. Pages 5-15.
16. Hoffer, Jeffrey A; George, Joey F; Valacich, Joseph S. "Modern Systems Analysis & Design". (c)2002 by Pearson Education, Inc. Prentice Hall.

17. Kioppenborg, Timothy J; Opfer, Warren A. "The Current State of Project Management Research: Trends, Interpretations, and Predictions." *Project Management Journal*. June 2002. Vol. 33. Issue 2. Pages 5-18.
18. Payne, John & Shirley. "Management Basics". (c)1998 by the Adams Media Corporation.
19. Quick, James Aaron; New, Cheryl Carter. "Grant Winner's Toolkit: Project Management and Evaluation". (c)2000 by Cheryl Carter New and James Aaron Quick. Published by John Wiley & Sons, Inc.
20. Schimmoller, Brian K. "The Changing Face of Project Management." *Power Engineering*. May 2001. Vol. 105. Issue 5. Pages 28-30.

-----

### SEMESTER III

#### 301 : Infrastructure Planning and Management

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I : Infrastructure and Urban Development (15)**

- 1.1 Role of infrastructure in development - Elements of Infrastructure - Physical, Social, Utilities and services
- 1.2 Basic definitions, concepts, significance and importance - required for provision and planning of networks and services –
- 1.3 Collection and compilation of data – Use of data for infrastructure planning and organization of services –
- 1.4 municipal set ups - associated functions- responsibilities and rights - Land requirements – acquisitions and rehabilitation – community involvement

#### **Unit II : Basic Infrastructure and Services (15)**

- 2.1 Water– sources, treatment and storage, transportation and distribution and quality - Establishing networks, Water budget and assessment - Institutional arrangements - Planning water supply - water system design choices of alternatives Issues related to the choice of centralized city water supply versus decentralized systems – Water accessibility, affordability and availability – challenges to meet increased demands – creation of benchmarks of water demand, per capita water consumption and supply - recent amendments – water conservation and sustainable development
- 2.2 Power – Sources of power procurement, distribution networks and grids, demand assessment - creation of benchmarks of energy demands, per capita energy consumption

and supply – Pricing and just distribution – Newer trends in urban energy – renewable energy

- 2.3** Sanitation and sewerage – Sanitary and sewerage system – features – issues related with generation, collection and management - DEWATS, institutional arrangements, planning provisions and management issues - Basic Design Parameters and Appurtenances - Sanitation technologies, their relevance to incremental growth of urban areas. Low cost sanitation technologies and concepts as related to Indian and third world country contexts - Sewage Treatment Plant and Water Treatment Plant (Components, Planning Considerations, Basic Design Parameters).
- 2.4** Storm water – Spatial pattern of distribution of precipitation and interpretation – Physiographic, altitudinal features and physical surface characteristic features – planning of drainage system - provisions and management issues - Basic Design Parameters and Appurtenances

**Unit III : Basic Infrastructure and services (15)**

- 3.1** Waste Generation – processing of waste – from origin to disposal – financial provisions – budgetary provisions - municipal act – waste management – environmental concerns – community participation – role of other agencies
- 3.2** Fire protection and Planning - norms and standards - Prevention fire requirements, fire classification of construction, fire fighting – building architecture and design – road accessibility and neighbourhood mapping
- 3.3** Transportation - types of transport systems - evolution of various types of transport modes – complementarity between various types of transport modes - hierarchy, capacity and geometric design -elements of roads and intersections - basic principles of transport and infrastructure design – transport cycle, concept of accessibility – characteristic features of traffic – elements of urban transport planning process
- 3.4 Other Infrastructure:**  
Concepts and theories for design and operation of electricity networks, power generation (conventional and non-conventional) communication networks like telephone facilities, WLL, cable TV, Fibre optic and other broadband communications networks, etc.

**Unit IV : Social Infrastructure (15)**

- 4.1** Educational facilities – type, location, availability and accessibility
- 4.2** Health facilities – Hierarchy, type, affordability and accessibility
- 4.3** Technology - technological choices - problems of operation, maintenance and implementation
- 4.4** The concept of asset management – significance in planning

**References:**

- 1. Anas, A., R. Arnott, K. Small (1998). 'Urban Spatial Structure,' *Journal of Economic Literature*, 36, pp. 1426–64.
- 2. Auzins, Armands (2004). 'Institutional Arrangements: A Gate Towards Sustainable Land Use', *Nordic Journal of Surveying and Real Estate Research*, 1(1), pp. 57–71.



3. BDA (2005). *Bangalore Master Plan 2015*, Bangalore Development Authority and SCE–CREOCEAN (India) Private Ltd., Bangalore.
4. CPR (2001). *The Future of Urbanization, Spread and Shape in Selected States*, Centre for Policy Research, New Delhi
5. D'Monte, Darryl (2002). *Ripping the Fabric: The Decline of Mumbai and its Mills*, Oxford University Press, New Delhi.
6. Dupont, Véronique (2002). *The World of Towns :Population and Development in India*, Institut de Recherche pour le Développement et Centre d'Etude de l'Inde et de l'Asie du Sud.
7. GOI (1988). *Report of the National Commission on Urbanization*, Ministry of Urban Development, New Delhi.
8. GOI (1996). *Urban Development Plans: Formulation and Implementation*, Ministry of Urban Development, Government of India.
9. GOI (2001). *Census of India 2001*, Government of India Publications, New Delhi.
10. GOI (2005a). 'Urban Infrastructure', *Economic Survey 2004–5*, Ministry of Finance, New Delhi.
11. GOI (2005b), *Mid-term Appraisal of the Tenth Five Year Plan (2002–2007)*, Planning Commission, New Delhi.
12. Gordon, Peter and Harry W. Richardson (1997). 'Are Compact Cities a Desirable Planning Goal?', *Journal of the American Planning Association*, 63(1), pp. 95–106.
13. Jain, A.K. (2005). *Vision for Delhi 2021: A Restructured City*, Delhi Development Authority, Delhi.
14. Jurong (2003). *IT Corridor Project. Structure Plan Report*, Jurong Consultants, Singapore, January.
15. Kothari, B. (2002). 'Transfer of Development Rights: An Alternative to Conventional Land Acquisition', in *3iNetwork, India*
16. *Infrastructure Report 2002: Governance Issues for Commercialization*, Oxford University Press, New Delhi.
17. Lewis, Paul and Mary Sprague (1997). *Federal Transportation Policy and Metropolitan Planning Organizations in California*, Public Policy Institute of California, USA.
18. Lewis, William, W. (2001). 'Unlocking Potential: Removing Barriers to India's Growth', *Wall Street Journal*, 11 September.
19. McKinsey (2003). *Vision Mumbai, Transforming Mumbai into a World-class City*, A Bombay First—McKinsey Report, Mumbai.
20. MSDI (2004). *City Diagnosis*, Report for BDA, Metropolitan Spatial Data Infrastructure, Bangalore.
21. Newman, Peter and Jeffery Kenworthy (1999). *Sustainability and Cities: Overcoming Automobile Dependence*, Island Press, Washington, DC.
22. Sirkantia, S.V. (2000). 'Restriction on Maps: A Denial of Valid Geographical Information', *Current Science*, 79(4), August.
23. UITP (1995). *The Millennium Cities Database for Sustainable Transport*, Union Internationale des Transports Publics, Brussels.
24. UN (2005), *World Urbanisation Prospects: The 2003 Revision*, Population Division, United Nations, New York.

## Semester III

### 302 Public Policies and Citizens' Engagements

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I : Political Economy of Indian State (15)**

- 1.1 Hierarchical positioning and power structure: Center, State and Local political economy – Powers and limitations of federal state
- 1.2 Planning commission and Five Year Plans – Financial Commission – CAG – powers and limitations
- 1.3 Transformation of Indian state – welfare state to neoliberal state – characteristics and contradictions
- 1.4 Changing role of state - state as a facilitator – various forms of public-private partnerships – neoliberal policies – critical appraisal - regulatory state, reforming state, rent-seeking state and their influence on spatial development

#### **Unit II : Introduction to Basic Elements in Public Policy (15)**

- 2.1 Identification of the socio-cultural and economic issues – constitutional and legal arrangements
- 2.2 Making of the policy – policy analysis – various approaches to address the issues – functional and operational difficulties
- 2.3 Defining and establishing the role of various institutions – structural arrangements and coordination between various governmental agencies – involvement of private sector, voluntary organizations and citizens group
- 2.4 Policy Process Analysis – life course approach to policy analysis – multi-stream approach and possible areas of integration in planning

#### **Unit III : Policy Planning and Management (15)**

- 3.1 Overview of post-liberal Structural Adjustment Programs and its impact on policy making – ‘travelling policies’ and global commitments - Newer trends of Mission statements and goal-setting techniques - centre, state and district level policy planning and operational hegemony - various vision documents and policy initiative
- 3.2 Policy and actual service provision mechanism – Politics of provision - public service organizations - Market based arrangements, Multiservice provider arrangements in public sector setting
- 3.3 Sectoral policy analysis – policies meant for various economic sectors – environmental policies – Integration of various policies – policy synergism
- 3.4 Role of technology in service provision – application of information and communication technologies in faster governance - E-Governance, E-Panchayat, E-Market, etc. - Transparency, Accountability, Accessibility, and participatory mechanisms.

#### **Unit IV : Policy and Politics**

**(15)**

- 4.1** 73<sup>rd</sup> and 74<sup>th</sup> constitutional amendments and decentralized governance – implications on local self governance – panchayat raj system – analysis of effectiveness of decentralized governance on urban, peri-urban and rural areas – output vis-à-vis various states governed by various political parties
- 4.2** Right to land – land use policies and land acquisition policies and politics of land – peri-urban areas and land transactions – dispossession – rehabilitation packages – promises and betrayals – case studies
- 4.3** Housing policies – slum rehabilitation and redevelopment schemes – affordable and rental housing – right to live in the city – rural housing policies and implementation – real estate and pressure politics – case studies
- 4.4** Policies of poverty eradication – concept of poverty line and identification of beneficiaries – politics of poverty – urban and rural poverty – politics of subsidized access to basic infrastructural facilities – political space and execution - economically weaker section – place and space – spatial identities - case studies

#### **References:**

1. Campbell, Tim; George Peterson and Jose Brakarz (1991): Decentralisation to Local Government in Latin American Countries: National Strategies and Local Response in Planning, Spending and Management; The World Bank
2. Chelliah, Raja. J and O.P.Mathur (1995): Operationalising Article 243Y of the Constitution (Seventyfourth)Amendment Act, 1992; National Institute of Public Finance and Policy; New Delhi.
3. Crook, Richard. C (1999): To What Extent Can Decentralised Forms of Government Enhance theDevelopment of Pro- Poor Policies and Improve Poverty- Alleviation Outcomes.
4. Davey, Kenneth (1989): Strengthening Urban Governance; Discussion Paper; Urban DevelopmentDepartment, The World Bank.
5. Devas, Nick (2002) Issues in Fiscal Decentralisation: Ensuring Resources Reach the (Poor at) thePoint of Service Delivery; International Development Department; School of Public Policy; University of Birmingham
6. Dillinger William (1993): Decentralisation and its Implications for Urban Service Delivery; UrbanManagement Program; UNDP/ UNCHS/ World Bank Publications.
7. Dutta, Abhijit (1999): Institutional Aspects of Urban Governance in O.P. Mathur (ed.) India- TheChallenges of Urban Governance; National Institute of Public and Policy, New Delhi.
8. Jha, Shikha (2002): Strengthening Local Governments’ Rural Fiscal Decentralisation in India; Economic and Political Weekly; Vol. XXXVII; No. 36.
9. Kundu Amitabh, S. Bagchi& D. Kundu (1999): Regional Distribution of Infrastructure and BasicAmenities in Urban India- Issues Concerning Empowerment of Local Governments; Economic andPolitical Weekly; Vol. XXXIV; No.28.
10. Litvak, J, J. Ahmad and R. Bird (1998): Rethinking Decentralisation in Developing Countries; SectorStudies Series; The World Bank; Washington DC.
11. Lister, Stephen & Mary Betley (1999): Approaches to Decentralisation in Developing Countries;Background Paper for the MEFMI/ DFID Workshop on Good Practice in Public ExpenditureManagement, Capetown

12. NIPFP (1995). Redefining State-Municipal Fiscal Relations- Options and Perspectives for the State Finance Commissions, Vol. I & Vol. III; NIPFP, New Delhi.
13. Rondinelli, D.A (1988): Increasing the Access of Poor to Urban Services: Problems, Policy Alternatives and Organisational Choices, in Rondinelli and Cheema (ed.) Urban Services in Developing Countries- Public and Private Roles in Urban Development; The Macmillan Press Limited.
14. Rondinelli, D.A (1990): Decentralising Urban Development Programmes- A Framework for Analysing Policy; Published by Office of Housing and Urban Programs of the USAID.
15. Sivaramakrishnan, K.C (2000): Power to the People: Process and Progress of Decentralisation; Konark Publishers, New Delhi.
16. Singh, Kulwant (2001): Trends in Decentralisation and Urban Governance; Paper Presented at the National Seminar on "Emerging Perspectives of Urban Governance" at New Delhi during 8-9 February (Publication details not available with the author)
17. Wolman, Hall and Sharon McCormic (1994): Effects of Decentralisation, in R.J. Bennet (ed.) Local Government and Market Decentralisation: Experiences in Industrial, Developing and Former Eastern Block Countries; United University Press; Tokyo, New York and Paris.
18. Government of India (2014), Fourteenth Finance Commission (2015-20), Finance Commission, India.
19. Government of Tamil Nadu (1996), Historical background, First State Finance Commission Report, Rural Development and Panchayat Raj Department
20. Oommen, M.A. (2015), Implications for Local Governments, Economic & Political Weekly, May 23, 2015, Vol L no 21.

### Semester III

#### 303 A : The Experience of Urban Regeneration - Indian Cities

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I : Residential Mobility and Inner city problem**

**(15)**

- 1.1 Why people move - factors influencing their decision to move-----lifecycle concept and value expectancy model of migration decision making
- 1.2 Problem areas of the city – inner city –the process of decline – multiple deprivation - ageing and obsolescence – inner city congestion
- 1.3 Socialist interpretation of the inner city problems

1.4 Suburban and peripheral growth

**Unit II : Gentrification**

**(15)**

2.1 Gentrification – definition - process – history of gentrification

2.2 Politics, Ideology and theories of gentrification - agents of gentrification -difference from redevelopment and neighbourhood revitalization

2.3 Gentrification – product of operation of land and housing market – as state sponsored initiative as a part of town and regional planning - institutionalized ethnic segregation

2.4 Costs and benefits – critical review

**Unit III : Urban Regeneration**

**(15)**

3.1 Urban Regeneration - process and evolution –policies and strategies-----practice, delivery and impact

3.2 Regeneration and housing policy and practice: residential policy at city/regional/national scales----historical and contemporary development of policy-----practice, delivery and impact.

3.3 Sustainable urban regeneration – prism of urban sustainability- actions, policies and processes - link between new urban economies, green economies and environmentally sustainable urban regeneration

3.4 Urban regeneration – stake holders and actors – clashes of interests and agendas — good governance - more horizontal, multi-stakeholder coordination and cooperation approach

**Unit IV : Urban Regeneration and Conservation**

**(15)**

4.1 Urban regeneration and conservation of heritage and cultural assets - Historic cities and areas, heritage buildings and heritage zones –traditional architecture, unique streetscapes international charters, national and international guidelines – standards of conservation

4.2 Urban Conservation – principles- economic, legal, aesthetic aspects – identification of heritage buildings and zones – conservation of historic landscapes and natural settings – urban tourism

4.3 Urban revitalization through conservation of cultural heritage and infrastructure – cultural heritage in Transportation projects – cultural heritage in water and environmental management projects

4.4 Urban revitalization and economic development - – cities as focal point for development on these basis – sources of urban revitalization – increased income earning opportunities – economic development – symbiotic nature of tourism and urban development

**Reference :**

1. Carter, H (1972): *The Study of Urban Geography*, Edward Arnold.
2. A. Latham, D. McCormack, K. McNamara, D. McNeill (2009): *Key Concepts in Geography*, Sage.
3. Campbell, H. 2006. "Just Planning: The Art of Situated Ethical Judgment." *Journal of Planning Education and Research* 26 (1): 92–106.
4. Campbell, H. 2012a. "'Planning Ethics' and Rediscovering the Idea of Planning." *Planning Theory* 11 (4): 379–99.
5. Campbell, H. 2012b. "Planning to Change the World: Between Knowledge and Action Lies Synthesis." *Journal of Planning Education and Research* 32 (2): 135–46.
6. Pacione, M. 2005, *Urban Geography*, Routledge, New York
7. Communities and Local Government. 2006. *Barker Review of LandUse Planning: Final Report—Recommendations*. London: Stationery Office.
8. Innes, J. 1995. "Planning Theory's Emerging Paradigm: Communicative Action and Interactive Practice." *Journal of Planning Education and Research* 14 (3): 183–91.

**Semester III**

**303 B : Urban Housing and Neighbourhood Planning**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

**Unit I : Introduction (15)**

- 1.1 Urban planning and housing – housing as a basic need – definition –
- 1.2 housing tenure and home ownership
- 1.3 housing availability, affordability– housing demand – qualitative and quantitative aspects
- 1.4 growth of slums and squatter settlements

**Unit II : Housing and Its Implications (15)**

- 2.1 Significance of housing in National Development Goals
- 2.2 Impact on economy -role of housing in the growth and function of urban productivity - effects on labour markets and, human capital development
- 2.3 Housing types and quality – residential layouts, housing densities - urban congestion, neighbourhood unit and community facilities - impact on the urban landscape

2.4 Major actors in the production of the built environment – role of real estate agents

**Unit III : Housing Market**

**(15)**

3.1 Housing market: concept of housing class and housing groups – social aspects of housing

3.2 Housing market process - private rental markets –process of public and private sector housing development – public private partnership in housing sector

3.3 Socio-economic diversity and housing market performance - housing market and socio-spatial disadvantage -- role of financial institutions and practice of red-lining –

3.4 Housing abandonment and neighbourhood decline - factors underlying neighbourhood decline and revitalization

**Unit IV : Housing Problems and Solutions**

**(15)**

4.1 Housing poverty – concepts of housing shortage – housing need - homelessness – supply and demand for affordable housing

4.2 Financing affordable housing – housing assistance and social policy - strategies and schemes to overcome housing shortage

4.3 Strategies to improve housing quality – filtering – clearance – rehabilitation – critical appraisal – alternative strategies

4.4 Housing policies in India – housing for the low income groups – cooperative housing –management and financing housing projects – investment in housing in public and private sector

**References**

1. Archer, R.W. (1989), An Outline of Urban Land Policy for the Developing Countries of Asia (Asian Institute of Technology, Bangkok).
2. Arimah, B.C. (1992a). "An empirical analysis of the demand for housing attributes in a Third World City", Land Economics 68:366-379.
3. Arimah, B.C. (1992b), "Hedonic prices and the demand for housing attributes in a Third World city: the case of Ibadan, Nigeria", Urban Studies 29:639-651.
4. Baer, W.C. (1991), "Filtering and third-world housing policy", Third World Planning Review 13:69-82.

5. De Leeuw, F. (1971), "The demand for housing: a review of the cross-section evidence", *Review of Economics and Statistics* 53:1-10.
6. De Leeuw, E and L. Ozanne (1981), "Housing", in: H. Aaron and J. Pechman, eds., *How Taxes Affect Economic Behavior* (The Brookings Institute, DC).
7. De Soto, H. (1989), *The Other Path: The Invisible Revolution in the Third World* (Harper and Row, New York).
8. Diamond, D.B. Jr. and M.J. Lea (1992), "The decline of special circuits in developed country housing finance", *Housing Policy Debate* 3:747-778.
9. Diamond, D.B. Jr. and M.J. Lea (1993), "Housing finance in developed countries: an international comparison of efficiency", in B. Turner and C. Whitehead, eds., *Housing Finance in the 1990s* (Gavle, Sweden: The National Swedish Institute for Building Research).
10. DiPasquale, D. and W.C. Wheaton (1992), "The markets for real estate assets and space: a conceptual framework", *Journal of the American real Estate and Urban Economics Association* 20:181-198.
11. Follain, J.R. and E. Jimenez (1985b), "The demand for housing characteristics in developing countries", *Urban Studies* 22.
12. Follain, J.R. and S. Malpezzi (1980), *Dissecting Housing Value and Rent* (Urban Institute).
13. Carter, H (1972): *The Study of Urban Geography*, Edward Arnold.
14. Pacione, M. 2005, *Urban Geography*, Routledge, New York

### **Semester III**

#### **303 C :Smart Cites and Future Urbanism**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I Introduction**

**(15)**

- 1.1 Smart cities – concept - origin - ideology
- 1.2 Typologies and different meanings - Wired city – Virtual city – Intelligent city – Information city – Digital city – Smart community – Knowledge city – Learning city – Sustainable city - Green city
- 1.3 Characteristics of smart cities - smart economy – smart people – smart governance – smart mobility – smart environment – smart living
- 1.4 Strategies and policies

#### **Unit II Global experiences**

**(15)**



2.1 Approaches towards smart cities in various countries

2.2 Smart city planning in advanced economies – economic , financial viability – social implications

2.3 Smart city planning in Global South– economic , financial viability – social implications

2.4 Case Study – Tel Aviv – the smartest city

### **Unit III Smart City Mission in India**

**(15)**

3.1 Smart city mission - Objectives – features – coverage and duration

3.2 Preconditions and criteria for the selection of smart city - actions and tools for smart cities

3.3 Strategies – retrofitting, redevelopment, greenfield, brownfield, pan-city

3.4 Governance and management – special purpose vehicles - smart solutions – arranging finance and funds – PPP model of urban governance and development

### **Unit IV Critical Evaluation of Smart City Concept**

**(15)**

4.1 What is so ‘smart’ about the smart city - Critical evaluation of the smart city concept

4.2 The contradiction of being ‘smart’ – smart vs. dull – fast vs. slow – the urban and digital divide – social divide

4.3 Financial and economic viability of smart city in the Global South

4.4 Critical evaluation of smart city development projects in India

### **Reference**

1. Allwinkle, S., & Cruickshank, P. (2011). Creating smart-er cities: An overview. *Journal of Urban Technology*, 18(2), 1–16.
2. Amin, A., & Thrift, N. (2002). *Cities: Reimagining the Urban*, London: Polity, Bates, J. (2012). “This is what modern deregulation looks like”: Co-optation and contestation in the shaping of the UK’s Open Government Data Initiative. *The Journal of Community Informatics*, 8(2). <http://www.ci-journal.net/index.php/ciej/article/view/845/916>. Accessed 6 Feb 2013.
3. Batty, M., Axhausen, K. W., Giannotti, F., Pozdnoukhov, A., Bazzani, A., Wachowicz, M., et al. (2012). Smart cities of the future. *European Physical Journal Special Topics*, 214(1), 481–518.
4. Bowker, G., & Star, L. (1999). *Sorting things out: Classification and Its consequences*. Cambridge: MIT Press.
5. Boyd, D., & Crawford, K. (2012). Critical questions for big data, *Information, Communication and Society*, 15(5), 662–679.

6. Caragliu, A., Del Bo, C., Nijkamp, P. (2009). Smart Cities in Europe. Series Research Memoranda 0048. VU University, 12 GeoJournal (2014) 79:1–14 123 Amsterdam, Faculty of Economics, Business Administration and Econometrics.
7. Dodge, M., &Kitchin, R. (2004). Flying through code/space: The real virtuality of air travel. Environment and Planning A, 36(2), 195–211.
8. Dodge, M., &Kitchin, R. (2005). Codes of life: Identification codes and the machine-readable world. Environment and Planning D: Society and Space, 23(6), 851–881.
9. Dodge, M., &Kitchin, R. (2007a). The automatic management of drivers and driving spaces. Geoforum, 38(2), 264–275.
10. Dodge, M., &Kitchin, R. (2007b). Outlines of a world coming in existence': Pervasive computing and the ethics of forgetting, Environment and Planning B, 34(3), 431–445.
11. Dutton, W. H., Blumler, J. G., & Kraemer, K. L. (1987). Wired cities: Shaping future communication. New York: Macmillan.
12. Farber, D. (2013). Counting the internet of things in real time, C|Net, July 30th. [http://news.cnet.com/8301-11386\\_3-57596162-76/counting-the-internet-of-things-in-real-time/](http://news.cnet.com/8301-11386_3-57596162-76/counting-the-internet-of-things-in-real-time/), Accessed 18 Sep 2013.
13. Ferro, E. &Osella, M. (2013). Eight business model archetypes for PSI re-use. Open Data on the Web workshop. [http://www.w3.org/2013/04/odw/odw13\\_submission\\_27.pdf](http://www.w3.org/2013/04/odw/odw13_submission_27.pdf). Accessed 10 May 2013.
14. Haque, U. (2012). What Is a City that It Would Be 'Smart'? Volume #34: City in a Box. <http://volumeproject.org/blog/2012/12/21/volume-34-city-in-a-box/>.
15. Hill, D. (2013). On the smart city: Or, a 'manifesto' for smart citizens instead. City of Sound, 1st Feb 2013. <http://www.cityofsound.com/blog/2013/02/on-the-smart-city-a-callfor-smart-citizens-instead.html>. Accessed 5 Feb 2013.
16. Hollands, R. G. (2008). Will the real smart city please stand up? City, 12(3), 303–320.
17. Ishida, T., &Isbister, K. (2000). Digital cities: Technologies, experiences, and future perspectives. LNCS: Springer, 1765.
18. Brook D. (2013): A History of Future Cities, W.W. Norton & Company, New York

## Semester III

### 303 D : Urban Transportation Systems

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### Unit I : Introduction

(15)

- 1.1 Transport and urban form – transport modes and technology – transport design and operating characteristics
- 1.2 Classification of roads – road layout and design - road network and connectivity –location of routes and efficiency of networks – structuring nodal hierarchies – regional network of

roads – characteristics of national, state and district highways – By-pass design factors of highways through towns

1.3 Competition and complementarity between modes of transportation and networks – examples from developed and developing countries

1.4 Patterns of travel demand – transport and work pattern – demand and supply of public transport traffic volume – congestion - parking and pedestrian issues

## **Unit II : Urban Transport**

**(15)**

2.1 Transport and urban design – broad pattern of rail, road, water and air transportation

2.2 transport and land uses- changing urban economic base, land use and urban structures – consequent dynamics of transport development – uneven transport development

2.3 transport problems – traffic movement and congestion – crowding – off-peak inadequacy – difficulties for pedestrian – parking problems – accidents – poor quality of public transport -

2.4 Role of public and private transport – conflicts and clashes – people’s preferences – state policies and institutional regulations

## **Unit III : Transport Costs**

**(15)**

3.1 Transport cost – determinants – comparative cost structures of major modes and systems of transportation

3.2 Different responses to transport problems – supply-fix approach – vehicle oriented policy – people-oriented non –capital- intensive policy –non transportation initiatives

3.3 Environmental concerns- air quality, sound pollution - vehicular emission - patterns of energy consumption – adoption of alternative fuels – environmental assessment – measures adopted

3.4 Transport system management – road pricing , auto-restraint, ride-sharing, - transport and urban structure – full motorization , weak- centre strategy, strong–centre strategy, low-cost strategy - – sustainable transport systems

## **Unit IV : Transport and Regional Development**

**(15)**

4.1 Transport and Sustainable Urban development – transit-oriented development-transit village – post-edge city - transport approaches - better processes – intelligent transportation systems –congestion pricing –infrastructure reconstruction

4.2 transport systems in India – colonial transport systems and regional patterns – metropolitan dominance and core-periphery imbalance

4.3 Institutional transport regimes and transport planning during the post- independence period in India – privatization and liberalization – changed policy perspectives – Implication of JNNURM in Indian cities – Golden Quadrilateral

4.4 Issues of transport development in Mumbai and MMR

**Reference Books:**

1. Rodrigue Jean-Paul, Comtois Claude and Slack Brian, 2006, 'The Geography of Transport Systems', Routledge.
2. Black, W., 2003, 'Transportation: A Geographical Analysis', New York, Guilford.
3. Hoyle B. and R. Knowles, 1998, 'Modern Transport Geography, 2<sup>nd</sup> Edn.', Wiley, London.
4. Tolley R. and B. Turtle, 1995, 'Transport systems, Policy and planning, A Geographical Approach', Harlow: Longman.
5. Taffee, E.J. and Gauthier, H.L. and M.E. O' Kelly, 1996, 'Geography of Transportation', Upper saddle River, NJ Prentice Hall.
6. Rimmer, P., 'Transport Geography', *Progress in Human Geography*, 10, 271-77.
7. Lowe, J C. and Moryadas, S, (1975): *The Geography of Movement*, Houghton Mifflin, Boston.
8. Hurst, E., 1974, 'Transport Geography-Comments and Readings', McGraw Hill, New York
9. Gatrell, A. (1983): *Distance and Space: A Geographical Perspective*, Clarendon Press, Oxford.
10. Hay, A.(1973): *Transport for the Space-Economy*, MacMillan, London.
11. Chapman, K., 1980, 'People, Pattern and Processes', Arnold Hememann, New Delhi.
12. Abler, R.(1971): *Distance Intercommunications and Geography*, *Proceedings of the Association of American Geographers*.
13. Abler, R Janelle, D, Philbrick, A. and Sommer, J. (1975) *Human Geography in a Shrinking World*, Duxbury Press.
14. Johnston, R.J. (1973): *Spatial Structures*, Methuen & Co. London
15. Abler. J.S., Gould, P. R. (1971): *Spatial Organisation*, Englewood cliffs, N. J, Prentice Hall.
16. Low N., and Gleeson, B. (2003): *Making Urban Transport Sustainable*, Palgrave-Macmillan, U.K
17. Raza M and Aggarwal, Y. (1986): 'Transport Geography of India- Commodity flows and the regional structure of the Indian Economy', Concept, New Delhi.
18. Munshi S. (1980); 'Geography of Transportation in Eastern India Under the British Raj', Centre for Studies in Social Sciences, Monograph 1, Bagchi, Calcutta.
19. Vasconcellos Eduardo A., 2005, 'Urban Transport Environment and Equity – The Case for Developing Countries', Earthscan.
20. Swapna Bannerjee-Guha 'Developing Urban Transport in Indian Cities: towards a Sustainable Future' 165-183
21. Sheppard Eric and Barnes Trevor, J, 2000, 'A Companion to Economic Geography', Blackwell.

22. Hansen Susan, 2000, 'Hooked on Speed, Eyeing sustainability', in Shepperd Eric and Barnes Trevor, J, 2000, 'A Companion to Economic Geography', Blackwell, pp. 468-83.
23. Hansen Susan, 2004, 'The Geography of Urban transportation', Guilford Press. 3<sup>rd</sup> edn.
24. Muller, Peter, O., 2004, 'Transportation and Urban Form - Stages in the Spatial Evolution of the American Metropolis', Guilford press.
25. DekaDevjyoti, 2004, 'Social and Environmental Justice Issues in Urban Transportation', in Hansen Susan, 2004, 'The Geography of Urban transportation', Guilford Press. 3<sup>rd</sup> edn.
26. Taylor, Brian D., 2007, 'Geography of Urban Transportation Finance', in Hansen Susan, 2004, 'The Geography of Urban transportation', Guilford Press. 3<sup>rd</sup> edn.

### **Semester III**

#### **303 E : Rural Resource Development and Planning**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I : Village System (15)**

- 1.1 Village as an organic entity – physical, social, economic
- 1.2 Administrative structure of village - Administrative framework of rural areas – village administration – district block – panchayats
- 1.3 Rural land use and morphology – theoretical perspectives
- 1.4 Rural resources – resource mobilization - social and economic implications

#### **Unit II : Rural Development (15)**

- 2.1 Rural development and planning – theories – indicators of development
- 2.2 Rural Infrastructure development and associated issues
- 2.3 Rural community development strategies link with rural planning
- 2.4 Rural entrepreneurship

#### **Unit III : Problematic of Rural Areas (15)**

- 3.1 Rural Poverty – factors and processes – social and economic dimensions

3.2 Rural urban linkages – dichotomy or symbiosis

3.3 Rural urban divide in terms of infrastructure facilities

3.4 Challenges faced by rural areas –economic, social, environmental, fiscal

**Unit IV : Rural Policy and Planning**

**(15)**

4.1 Rural development and planning – experiences of countries from Global South

4.2 Various international, national and regional policies

4.3 Strategies adopted and rural development programmes with special reference to India.

4.4 Critical appraisal of rural development programmes

**References**

1. Carew-Reid J., Prescott-Allen R., Bass S. and Dalal-Clayton D.B. (1994): *Strategies for National Sustainable Development: A Handbook for their Planning and Implementation*. International Institute for Environment and Development (IIED) and World Conservation Union (IUCN), in association with Earthscan Publications Ltd, London.
2. IIED (1994): *Whose Eden ? An Overview of Community Approaches to Wildlife Management*. International Institute for Environment and Development, London.
3. Roe D., Dalal-Clayton D.B. and Hughes R. (1995): *A Directory of Impact Assessment Guidelines*. IIED, London.
4. Dalal-Clayton D.B. and Sadler B. (1995): *Strategic Environmental Assessment: A Briefing Paper*. Environmental Planning Group, IIED.
5. Dalal-Clayton D.B. (1996): *Getting to Grips with Green Plans: Recent Experience in Industrial Countries*. Earthscan Publications Ltd., London, 288 pages.
6. Barry Dalal-Clayton, David Dent and Olivier Dubois (January 2000) :*Rural Planning in the Developing World with a Special Focus on Natural Resources: Lessons Learned and Potential Contributions to Sustainable Livelihoods: An Overview*

**Semester III**

**304 A : Inclusive, Sustainable and Resilient Cities – Global Perspectives**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

**Unit I :Globalisation and Inequalities**

**(15)**

- 1.1 Contemporary Cities – advanced economic activities vs. conventional industries sunrise and sunset industries - the ‘fast’ world and the ‘slow’ world –resulting economic disparities and social segregations – theories of social segregation
- 1.2 Creative Destruction – Joseph Schumpeter – Critical perspective by Harvey, McLeod, Smith and others - grandiose scale of planning – displacement, polarization and spatial purification
- 1.3 Geography of exclusion - forms, patterns and terrains of exclusion – spatial exclusion, social exclusion and economic exclusion
- 1.4 Exclusion vs. inclusion – Various approaches towards inclusive and sustainable development

**Unit II : Inclusive Cities (15)**

- 2.1 Spatial inclusion – affordable housing – infrastructural development – accessibility to basic services and facilities – involvement of disadvantaged groups in planning - land titles and ownership
- 2.2 Social and economic inclusion – right to equality – equal status – participation and representation - identification of conventional and newer skills – skill based training and education – skill based employment generation – inclusion of disadvantaged groups – appropriate knowledge and technology
- 2.3 Strategies – multi-sector solutions - preventive and curative solutions –prioritizing investments - pro-poor policy initiatives – involvement of communities - participatory approach – partnerships at various levels - local capacity building – decentralized governance
- 2.4 Case Studies – Vietnam, Tanzania, Jamaica, Town and Village Enterprises (TVEs) China, India, etc.

**Unit III :Resilient and Sustainable Cities (15)**

- 3.1 The concept of resilience – need and significance in the contemporary time – city preparedness – adaptations – risk reduction and mitigation
- 3.2 Climate change and resilience – green infrastructure – green architecture – resource efficiency and sustainability – international efforts and networking - USAID’s CityLinks Climate Partnership Program - City Strength Resilient Cities Program - Cities Development Initiative for Asia – diverge experiments – successes and failures
- 3.3 Concept of Sustainability – financial, economic and environmental sustainability – city, region and sustainability Resource identification, identification of spatial functional linkages, identification of conventional economic activities with acquired and traditional skills of people and identification of newer economic activities - hierarchical framework to incorporate interests and ideas of various socio-economic groups - Selection of activities, spatial allocations for the same by involving the affected groups in the decision making - blending and integration of conventional and modern planning experiments
- 3.4 City to city networking –‘travelling policies’ - production and exchange of knowledge – capacity building and involvement of various stakeholders – local, regional and international collaborative efforts - training programmes – intra-city and inter-city governance panels - networking and funding opportunities - accelerating their urban resilience efforts – case studies from Global North and Global South

#### **Unit IV : Livable Cities**

**(15)**

- 4.1 Urban space and gender – concept of gender budgeting – special infrastructural development for women – urban design and women safety and security – gender sensitive urban planning
- 4.2 Public spaces – accessibility, affordability and livability - public spaces and urban poor – right to space – planning public spaces as corridors of freedom –
- 4.3 Planning for all – various users of public space – maintaining public goods and services – street shopping and weekly markets – neighborhood planning and mixed landuse - applying Jane Jacobs and her analysis
- 4.4 Differentially abled population – including the special needs in planning for the cities – examples from Global North and Global South

#### **References :**

1. Florian Steinberg and Michael Lindfield (2011): *Inclusive Cities*, Urban Development Series, Asian Development Bank
2. United Nations International Strategy for Disaster Reduction, 2012  
<http://www.unisdr.org/we/inform/disaster-statistics>
3. J. da Silva, Moench. M. 2010. The Urban Resilience Framework (URF), ISET. Arup, ISET International, Thailand Environmental Institute, Mercy Corps Indonesia, Gorakhpur Environmental Action Group. 2013. Actions on Urban Climate Resilience. ISET.
4. S. Kernaghan and J. da Silva. 2014. Initiating and sustaining action: Experiences building resilience to climate change in Asian cities, *Urban Climate* 7, pp. 47-63.
5. Arup. 2014, Understanding networks for cities and climate change. The Rockefeller Foundation, ACCCRN Network, Asian Development Bank.
6. A. Bahadur and T. Tanner. 2014. Transformational resilience thinking: putting people, power and politics at the heart of urban climate resilience, *Environment and Urbanization*, vol. 26 no. 1. pp. 200-214.
7. W. McBain, D. Wilkes, and M. Retter. 2010. Flood Resilience and Resistance for Critical Infrastructure. CIRIA C688. London, New York State Governor's Office. 2013. NYS 2100 Commission Report: Building Resilience in New York.
8. H. Reid, J. Phillips, and M. Heath. 2009. Natural resilience: healthy ecosystems as climate shock insurance. The International Institute for Environment and Development (IIED). IIED Briefing.
9. Siemens, Arup, RPA. 2013. Toolkit for Resilient Cities: Infrastructure, Technology and Urban Planning. Siemens, Arup, RPA.
10. The World Bank. 2012. Building Urban Resilience: Principles, Tools and Practice. The World Bank, Australian AID.
11. The World Bank. 2013. Building Resilience: Integrating Climate and Disaster Risk into Development. The World Bank, The Global Facility for Disaster Risk Reduction and Recovery (GFDRR).



## Semester III

### 304 B : Climate Change and Future Planning

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I: Environment and Development (15)**

- 1.1 The ideology of Creative Destruction – consequences – ‘big is beautiful’ idiom – resultant patterns of spatial development in industrial and post-industrial era –Capitalist development and state of environment – Neoliberalism, MNCs and commodification of environment – compromised environment in developing and underdeveloped countries
- 1.2 Environmental movements – origin, evolution and achievement – peoples movement, case studies – Ngoisation of environmental movements and associated contradictions – the present ‘state’ and status of movements
- 1.3 Environmental issue – local, regional and international – Global Warming and climate change – consequences
- 1.4 Environmental politics – the climate change debate – Geo-politics of resources – international efforts – Kyoto Protocol and environmental summits – successes and failures

#### **Unit II Climate change, Cities and Regions - I (15)**

- 2.1 The urban system – geographical location of major urban systems – consequences in the light of sea-level change – Impact of other environmental issues – vulnerable groups
- 2.2 Indicators of urban environmental quality – air quality, water quality, terrestrial systems and solid waste pollution – case studies from Global North and South – direct and indirect impact of climate – vulnerabilities – shocks and stresses – responses of various socio-economic groups
- 2.3 Urban natural disasters – geographical factors – planning induced disasters – urban landuse, morphology, faulty planning of infrastructure, building constructions, layout , architecture, drainage and sanitations system – consequences of inefficient city planning – case studies – urban heat islands - weather and micro climatic changes
- 2.4 Rapid pace of urbanization and population densities – stresses and pressures on natural resources – scarcity and unequal access - land as a resource – rapid conversion of land into artificial city-scapes - consequences and contradiction – present urban planning, concretization and status of urban environment – urban and community health – diseases, epidemics and general deterioration – psychological stress and mental health

#### **Unit III : Climate change, cities and regions –II (15)**

- 3.1 Climate change and impact on agricultural systems – droughts and floods - impact on rural population – vulnerability, displacement and dispossession
- 3.2 Contemporary form of spatial development – ‘urban’ oriented pattern of development - Rapid conversion of agricultural lands into non-agricultural for various purposes – land scams and politics – state sponsored and other forms of land acquisitions - loss of resources and livelihoods – state - food security – community health - induced rural –urban migration and pressures on cities

3.3 International legislation – IPCC – Greenpeace - UNEP conventions and regulations - repercussions on urban and regional planning  
3.4 The climate change risk calculation and equation – planning of disaster resilient communities and cities – resilient planning and designing – street, drainage, sewerage, building, architectural planning – bench marks – disaster management and GIS – case studies

**Unit IV : Environmental Policies, Legislations and movements (15)**

4.1 Urban and other local governmental bodies - legislation – environmental legislations regarding industries, Developmental projects, green spaces, agricultural lands, coastal lands, salt pans, etc. – newer policies of sustainable urban development – rainwater harvesting, solid waste management – Environmental Impact Assessment

4.2 Role of State, Centre and other constituted bodies in environmental planning – powers and limitations – implication on urban environment – Impact of new economic policy on urban environment – new regionalism and environmental deterioration

4.3 Funding climate change prevention: market and non-market based approaches, role of institutional actors: Government, NGOs, Multilateral agencies and citizen groups – elitist environmentalism – environmental management vs. ecological restoration

4.4 Indian planning visions to climate change and building resilient cities - Climate action plan – schemes and policies – vision plans hi-tech, eco-friendly cities – policy and implementation – case studies

**Reference :**

1. Asian Cities Climate Change Resilience Network. 2011. Surat City Resilience Strategy, The Rockefeller Foundation, Surat Municipal Corporation, The Southern Gujarat Chamber of Commerce and Industry, TARU Leading Edge.
2. Asian Cities Climate Change Resilience Network. 2013. ACCCRN City Projects, The Rockefeller Foundation Asia Office.
3. Arup. 2014. City Resilience Framework. The Rockefeller Foundation, City Resilience Index.
4. G. Bhat, U. Raghupathi, and U. Rajasekar. 2013. Urbanisation – Poverty – Climate Change: A Synthesis Report, India, Volume I and II.
5. A. Brown, A. Dayal, and C. Rumbaitis Del Rio, 2012, From practice to theory: emerging lessons from Asia for building urban climate change resilience, Environment and Urbanization. pp. 24–531.
6. A. Brown and S. Kernaghan, 2011, Beyond Climate-Proofing: Taking an Integrated Approach to Building Climate Resilience in Asian Cities. UGEC Viewpoints, No. 6. Challenge to Change and Hue University. 2009. Hazard, Capacity & Vulnerability Assessment in Da Nang. ACCCRN, The Rockefeller Foundation.
7. J. da Silva, S. Kernaghan, and A. Luque. 2012. A systems approach to meeting the challenges of urban climate change, International Journal of Urban Sustainable Development. pp.1-21.
8. UN Habitat. 2013. Planning for Climate Change – Toolkit. A strategic, values-based approach for urban planners Cities and Climate Change Initiative. UN Habitat.

## Semester III

### 304 C : Psychological Dimensions and City Planning

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I : Urban Society (15)**

- 1.1 Being and becoming – a dialectical analysis – perceptions studies and making of mind – the process of socialization – factors and processes
- 1.2 Urban populations – ethnic and cultural diversity – segregation and/ or acculturation
- 1.3 intergroup relations – social and cultural harmony and / or socio-cultural conflict
- 1.4 social and cultural segregation – ethnicity , gender , sexuality, etc – the resultant mental spaces and maps – inclusion and exclusion

#### **Unit II : Urban Issues and Stresses (15)**

- 1.1 urban poverty and inequality – ‘have’s and have not’s’ – scarcity and competition – resultant perspectives towards individual and life
- 1.2 Issues of crime and violence – drug and substance abuse – euphoria and utopia
- 1.3 Urban regeneration and gentrification – neighbourhood replacements – identity crisis – displacement, dispossession and neurological problems
- 1.4 Urban systems and everyday stress – psychosomatic disorders and malfunctioning – increasing incidences of depression

#### **Unit III Transience and the city (15)**

- 3.1 *Future Shock* and Alvin Toffler – transience and city life – modular man – spaces as nomads – globalisation and new class of international migrants
- 3.2 Man- space relations – a disconnect - individual and social discontinuities – erosion of place attachment in local Communities - Place attachment in the working class under threat - Complexities in understanding community - behavior and experience – metropolitan consciousness
- 3.3 Changing cities – geography of ethics and morals – cognitive and emotional responses – indifferences - technological transience - rise of the Internet and virtual forms of communication – simulations – cognitive and emotional responses and behaviours – individual and social wellbeing
- 3.4 Analysis of how changing global conditions (economic, social, societal and individual) affect psychological processes such as environmental cognition, information processing and are responsible for stress - coping strategies and defence mechanisms at gross and individual level – its impact on individual and community life

#### **Unit IV : Planning the Healthy Cities (15)**

- 4.1 Psychology and institutions :neighbourhood planning and youth development, improved parental practices in urban context, institutional interventions to support urban communities – case studies

- 4.2** community efforts and citizens groups as a catalyst in creating healthy and supportive environment – case studies - experiments of mohalla committees in Bhiwandi city
- 4.3** Initiatives by voluntary associations and faith-based associations – dealing with drug abuse, substance abuse – slum improvement and moral education
- 4.4** Intergroup Relations, Acculturation, and Identity Formation in Urban Multiethnic Contexts - Advocate for Services for the Urban Poor - Develop New Programs and Services In Critical Areas – counselling centres and helplines

### References :

1. Aldwin, C.M., 2007. *Stress, Coping, and Development: An Integrative Approach*. Guilford, New York.
2. Appleton, J., 1975. *The Experience of Landscape*. John Wiley, London.
3. Atkinson, R.L., Atkinson, R.C., Smith, E.E., Bem, D.J., Nolen-Hoeksema, S., 1996, Hilgard's *Introduction to Psychology*. Harcourt Brace College Publishers, FortWorth.
4. Ayres, J.A., 1983. *Sensory Integration and the Child*. Western Psychological Services, Los Angeles.
5. Bell, S., 1999. *Landscape. Pattern, Perception and Process*. E&FN Spon, New York.
- van den Berg, A.E., Koole, S.L., van der Wulp, N.Y., 2002. Environmental preference and restoration: (How) are they related? *J. Environ. Psychol.* 23, 135–146.
6. Björk, J., Albin, M., Grahn, P., Jacobsson, H., Ardö, J., Wadbro, J., et al., 2008. Recreational values of the natural environment in relation to neighbourhood satisfaction, physical activity, obesity and wellbeing. *J. Epidemiol. Commun. H62*, e2.
7. Cowen, T. (2002). *Creative destruction: How globalization is changing the world's cultures*. Princeton, NJ: Princeton University.
8. Crane, J. (1991). The epidemic theory of ghettos and neighborhood effects on dropping out and teenage childbearing. *American Journal of Sociology*, 96, 1226-1259.
9. Culhane, D. P., & Lee, C. M. (1997). *Where homeless families come from: Toward a prevention-orientation approach in Washington, DC*. Washington, DC: Fannie Mae Foundation.
10. Dankelman, I., & Davidson, J. (1988). *Women and environment in the Third World: Alliance for the future*. London: Earthscan Publications.
11. Darley, J. M., & Latane, B. (1968). When will people help in a crisis? *Psychology Today*, 12, 54-57, 70-71.
11. Darling-Hammond, L. (1997a). *The right to learn: A blueprint for creating schools that work*. San Francisco: Jossey-Bass.
12. D'Augelli, A., & Garnets, L. (1995). Lesbian, gay, and bisexual communities. In A. D'Augelli & C. Patterson (Eds.), *Lesbian, gay, and bisexual identities over the lifespan: Psychological perspectives* (pp. 293-320). New York: Columbia University Press.
13. D'Emilio, J. (1983). *Sexual politics, sexual communities: The making of a homosexual minority in the United States, 1940-1970*. Chicago: University of Chicago Press.
14. R. F. Ferguson & W. T. Dickens (Eds.), *Urban problems and community development* (pp. 381-435). Washington, DC: Brookings Institution Press.
14. Dinh, K. T., Roosa, M. W., Tein, J. Y., & Lopez, V. A. (2002). The relationship between acculturation and problem behavior proneness in a Hispanic youth sample: A longitudinal mediation model. *Journal of Abnormal Child Psychology*, 30, 295-309.

16. Drake, R. E., Osher, F. C., & Wallach, M. A. (1991). Homelessness and dual diagnosis. *American Psychologist*, 46, 1149-1158.
17. Neighborhoods and adolescent development: How can we determine the links? In A. Booth & A. C. Crouter (Eds.), *Does it take a village? Community effects on children, adolescents, and families* (pp.105-136). Mahway, NJ: Lawrence Erlbaum.
18. Dunlap, E. (1992). Impact of drugs on family life and kin networks in the inner-city African-American single-parent household. In A. V. Harrell & G. E. Peterson (Eds.), *Drugs, crime, and*
19. Report of the APA Task Force on Urban Psychology Toward an Urban Psychology: Research, Action, and Policy, year not defined
20. Toffler, A. (1967) : *Future Shock*, ABC Books, US

### **Semester III**

#### **304 D : Culture, Creativity and Planning**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

#### **Unit I : Culture, creativity and city (15)**

- 1.1 Culture and Creativity – culture as a product , commodity and tourist package
- 1.2 Elements of culture – reflections on the composition of spatial forms – production of cultural landscape
- 1.3 Cultural consumption – individual and social cultural consumption
- 1.4 Elements of cultural landscape – archaeology, architecture, monuments, heritage, art, museums, food, music, drama, etc.

#### **Unit II : Cultural Planning – European Experience (15)**

- 1.1 History and Evolution of cultural planning – strategies – cultural districts – cultural tourism
- 1.2 Role of cultural planning in economic and community development – neighbourhood, community and downtown revitalisation
- 1.3 Cultural regeneration and Cultural Policies in Europe: From a State to a City Centered Perspective on Cultural Generativity
- 1.4 Case studies of European cities

#### **Unit III : Geography of Consumption (15)**

- 1.1 cultural consumption and visualisation – virtual experiences - sensory satisfactions and consumptions – making of space of consumptions
- 1.2 cultural imperialism – Americanisation and McDonaldisation of culinary cultures – Creolization and hybridity of commercial cultures – fusions and experiences of glocalisation – discotheques, liquor, sex and the city – consequent cultural space -
- 1.3 Spatial imaginations and investment in cultural regeneration – art as an export based industry – economic and financial feasibility – social cost – local cultures and communities – their stake
- 1.4 Institutional support and development – City cultural affair department, Regional Arts Council and various institutional networks

#### **Unit IV : Learning and Application in Indian Context**

**(15)**

- 1.1** Identification of cultural resources – spatial character of cultural diversity and uniqueness
- 1.2** Role of governmental agencies – Ministry of cultural affairs – preservation, promotion of local cultures – various schemes and efforts
- 1.3** Cultural planning in Indian Context – Various views and approaches
- 1.4** Case Studies

#### **References :**

1. Mansvelt Juliana, 2005, 'Geographies of Consumption', Sage.
2. Leyshon Andrew, Lee Roger, McDowell Linda and Sunley Peter, 2011, The Sage Handbook of, 'Economic Geography', Sage, pp. 303-350- Part 7.
- 3) Barabasi, A. & E. Bonabeau. (2003) : Scale-Free Networks, Scientific American, 288 (5): pp.60–69.
- 4) Bathelt, H., Malmberg, A. & P. Maskell. (2004) : Clusters and knowledge :local buzz, global pipelines and the process of knowledge creation, Progress in Human Geography, n° 28, pp. 31-56.
- 5) Bianchini, F. & M. Parkinson. (1995) : Cultural Policy and Urban Generation: The West European Experience, Manchester: Manchester University Press.
- 6) Boudreau, J. A., Hamel, P., Jouve, B., & R. Keil. (2006) : Comparing metropolitan governance : The cases of Montreal and Toronto, Progress in Planning, vol. 66, n° 1.
- 7) Camagni, R. (1999) : The city as a Milieu: applying the Gremi approach to urban development, Revue d'Economie Régionale et Urbaine, 3, pp.591-606.
- 8) Camagni, R. (2004) : Uncertainty, Social Capital and Community Governance: the City as a Milieu, in R. Capello & P. Nijkamp, pp.121-152.
- 9) Florida, R. (2004) : Cities and the creative class, Londres, Routledge.
- 10) Florida, R. (2002) : The Rise of the Creative Class. And How It's Transforming Work, Leisure and Everyday Life, Basic Books.
- 11) Florida, R. (2005) : The Flight of the Creative Class: The New Global Competition for Talent, London: Harper Collins.
- 12) Gertler, M. (2003) : Tacit knowledge and the geographic economy of context or the undefinable tacitness of being there, Journal of economic geography, pp.75-99.
- 13) Glaeser, E. L. (2004) : Book Review of Richard Florida's "The Rise of the Creative Class", Harvard Business School, <http://www.creativeclass.com/rfcgdb/articles/GlaeserReview.pdf>
- 14) Bandarin, F. & R. Van Oers. (2012) : The Historic Urban Landscape. New York: Wiley & Blackwell.
- 15) Jackson, P., Lowe, M., Miller, D. and Mort, F. (2000) 'Introduction: transcending dualisms', in P. Jackson, M. Lowe, D. Miller and F. Mort (eds.), Commercial Cultures: Economies, Practices, Spaces, Oxford: Berg.
- 16) Bridge, G. and Smith, A. (2003) 'Guest editorial. Intimate encounters: culture - economy – commodity', Environment and Planning D: Society and Space, 21: 257-68.

## **304 E : Integrated Rural Development**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

### **Unit I : Introduction (15)**

- 1.1** Decentralised planning in India – concept of panchayat raj and hierarchical arrangements
- 1.2** Gandhian and Nehruvian visions – top-down and bottom approaches – trickle down process
- 1.3** Recent amendments and decentralized governance - 73rd and 74th constitutional amendment acts – implication in regional and rural planning – status of local self-government bodies
- 1.4** Participative district planning - role of Planning Commission & Finance Commissions

### **Unit II : District as a Unit of Planning (15)**

- 2.1** Identification of resources, skills, economic linkages and interconnections – socio-economic and spatial relations of production and consumption - interrelations and interdependencies between communities and micro-regions
- 2.2** Identification of micro-regions on the basis of functions – identifying and strengthening backward and forward linkages – establishing a connection between conventional and newer economic sector – introduction of supportive activities to that of already existing
- 2.3** Institutional and other support for District Planning Committee, Bridging gap through district planning, funds and finances, consolidation of urban and rural plans
- 2.4** Multi-Sector and multi-level integrated approach to planning (vertical and horizontal spatial integration) - Capacity Building for Decentralised Planning - involvement of various stakeholders

### **Unit III :Rural Development Programmes (15)**

- 3.1** Five Year Plans and rural development – globalization and shifting emphasis of planning from rural-centric to urban-centric - various approaches and perspectives towards rural development and planning – village development plan
- 3.2** Programmes/Policies/Schemes for rural development, their coverage and outcomes – investments, revenue and expenditure – funding from various bodies like centre, state and district
- 3.3** Rural Infrastructure Development - Bharat Nirman – A business plan for rural infrastructure, Rural Building Centers, PMGSY, IAY, Rajiv Gandhi Technology Mission, Central Rural Sanitation Programme, PURA, Asha Programme for rural health, ICDS for rural and tribal health, etc
- 3.4** Rural Employment Schemes - Mahatma Gandhi National Rural Employment Guarantee Act 2005, SampoornaGrameenYojana, National Food for work programme, SwarnaJayanty Gram Swarozgaryojana, National Social Assistance ProgrammeCommand Area Programme, Draought Prone Area Programme, Backward Area Development Programme, North Eastern Development Programme.

### **Unit IV : Problematic of Integrated Rural Planning (15)**

- 4.1** Rapid pace of urbanization and changing profile of rural and peri-urban areas – land transactions – loss of agricultural lands – changing work profile, loss of livelihoods and associated challenges - land conversions and its regulation/facilitation in peri-urban areas

**4.2** Various Issue in integrated planning – nature of investments in rural areas – productive and nonproductive – market economy and status of agriculture – socio-cultural stratifications and issues of participatory governance – politics of resources and urban dichotomy – placements of rural areas vis-à-vis urban – exploitative regime

**4.3** Technology in Rural Development – use of information technology in rural development, rural Information system, weather forecasting, disaster minimization, market information, etc. E- Panchayats, energy efficient technologies and alternative technologies

**4.4** Rural Development experiences of some Asian Countries – China, Malaysia, Sri Lanka, Bangladesh.

#### **References :**

1. Hughes R., Adnan S. and Dalal-Clayton D.B. (1994): *A Review of Approaches to Water Management in Bangladesh*. Research and Advisory Services, Dhaka, Bangladesh; and International Institute for Environment and Development, London.
2. Carew-Reid J., Prescott-Allen R., Bass S. and Dalal-Clayton D.B. (1994): *Strategies for National Sustainable Development: A Handbook for their Planning and Implementation*. International Institute for Environment and Development (IIED) and World Conservation Union (IUCN), in association with Earthscan Publications Ltd, London.
3. IIED (1994): *Whose Eden ? An Overview of Community Approaches to Wildlife Management*. International Institute for Environment and Development, London.
4. Roe D., Dalal-Clayton D.B. and Hughes R. (1995): *A Directory of Impact Assessment Guidelines*. IIED, London.
5. Dalal-Clayton D.B. and Sadler B. (1995): *Strategic Environmental Assessment: A Briefing Paper*. Environmental Planning Group, IIED.
6. Dalal-Clayton D.B. (1996): *Getting to Grips with Green Plans: Recent Experience in Industrial Countries*. Earthscan Publications Ltd., London, 288 pages.
7. Barry Dalal-Clayton, David Dent and Olivier Dubois (January 2000) :*Rural Planning in the Developing World with a Special Focus on Natural Resources: Lessons Learned and Potential Contributions to Sustainable Livelihoods: An Overview*

### **Semester III**

#### **305 :City Development Plan and Regional Development Plan**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

Students are expected to select specific cities and their regions. While understanding these cities and their regions, students are expected to prepare city and regional development plan considering all the aspects of planning and governance. Small and medium cities and their hinterland regions will be preferred for the same. The students are expected to develop a balanced vision that shall help them in having better



understanding of dynamic processes that shape cities and their regions. The understanding shall also help them in devising appropriate planning measures and interventions that would bring in the balanced pattern of development.

### **Semester III**

#### **306 :Geo-Informatics for Urban/Rural management**

No. of Credits: 4 Teaching Hours 60 + Notional Hours 60= Total hours 120

##### **Unit I : Image Registration and Processing**

Registration of aerial photographs and imageries from different time points - change detection - electromagnetic spectrum, band combinations, supervised and unsupervised Classification, data acquisition, radiometric resolution, temporal resolution, object-based image analysis - Analyzing & Presenting data in three dimensions - 3D Visualization—ArcScene&ArcGlobe- 3-D mapping of land and its use in city and regional planning. Geo visualization of landscapes: rural and urban.

##### **Unit II : Spatial Data Infrastructure Development in India**

Spatio-temporal data modeling and analysis -Spatial Data Infrastructure: conceptual framework, network development and hierarchy setup use ofSDI in urban and regional planning and decision making process - Open Geospatial Consortium –ISO standards (TC211).

##### **Unit III :Application of Spatial Data Infrastructure in Urban and Regional Management**

NRDMS and NSDI – a multi-level spatial data infrastructure – case studies of various state initiatives - NCT Delhi SDI - Karnataka and Kerala Portals – Bhoomi - Gujarat’s Tax programme- application to coastal area planning – Tamil Nadu coast.

##### **Unit IV : SDI application in Planning and Decision Support**

Application in Population Data Sets, Natural Resource Repository - Integrated Water Resource Management – application in agriculture & rural development, geospatial application in transportation - disaster management and conservation – solid waste management – case studies from India and abroad.

##### **References :**

1. Burrough, Peter A and McDonnell, R.A. (1998): Principles of Geographical Information Systems, Oxford University Press, Mumbai.
2. Campbell. J. (1989): Introduction to Remote Sensing, Guilford, New York.
3. Clarke, Keith C. (1998): Getting Started with Geographic Information Systems, Prentice-Hall Series in Geogl. Info. Science, Prentice-Hall, Inc. N.J.
4. Curran, Paul, J, (1988): Principles of Remote Sensing, Longman, London.
5. Heywood, I, et al (2002): An Introduction to Geological Systems, Pearson Education Limited,

New Delhi.

6. Iliffe, J.C (2006), Datums and Map Projections for Remote Sensing, GIS and Surveying, Whittles Publishing, New York.

7. Jonson. R. J. (2003): Remote Sensing of the Environment-An Earth Resources Perspective, Pearson Education Series in Geographical Information Science, Keith C. Clarke (Series editor) Pearson Educators Private Limited. (Singapore), NewDelhi.

8. Lilles and Thomand and RelphKiffer (1994). Remote Sensing and Image Interpretations, John Wiley and Sons, Inc., New York.

9. Parker, R, N. (2008),GIS and Spatial Analysis for the Social Sciences, Routledge, New York.

1. Paul Longley (2005), Geographic Information Systems and Science, John Wiley & Sons.

11. Pickles, John (2006), The Social Implications of geographic Information Systems, Rawat Publications, Jaipur.

12. Star, Jeffrey and John Estes (1996), Geographical Information Systems: An Introduction, Prentice-Hall, inc., N.J.

13. Shekar, S and Chawla, S, (2009), Spatial Databases: A Tour, Pearson Education, Delhi.

## **Annexure I**

**Department of Geography**

**University of Mumbai**

**Two Year Degree Course of Master of Urban and Regional Planning**

**As per Choice Based Credit System (CBCS)  
(With effect from the academic year 2016-2017)**

**Question Paper Pattern for Semester I and II**

**For semester I, II and III following pattern of examination will be followed : -**

**Theory Paper:** 100 marks for each paper (Total papers 4)

**Internal examination:** Total marks 40 (in each theory paper)

**External examination:** Total marks 60 (in each theory paper)

- i) Total no. of questions to be framed for theory paper in external examination: 6; 15 marks each.
- ii) Out of the 6 questions, students are required to attempt **any four** questions.

**Practical Paper:** 100 marks for each paper (Total papers 2)

**I & II End Semester Question Paper in Practicals-**

**A: External examination: Total Marks- 100**

- i) Students are expected to attempt **total four** questions of **20 marks** each i.e. **80 marks**
- ii) Marks for Journal – **10**
- iii) Marks for Viva-voice - **10**
- iv) **All questions are compulsory**
- v) No of questions would correspond with number of major modules in the respective practical Course syllabus.

**For Semester IV the pattern of examination will be as follows**

Each Student is expected to choose a research theme approved by the department and submit a thesis. The thesis will be given a weightage of 18 credits. The remaining six credits will be given for the End Exam (Viva-Voce). The general format and guidelines shall be laid down by the department. The research work is expected to contain original work.

.....