

**UNIVERSITY DEPARTMENTS**  
**ANNA UNIVERSITY: CHENNAI - 600 025**  
**REGULATIONS – 2015**  
**MASTER OF PLANNING (M. Plan) - FULL TIME**

**PROGRAMME EDUCATIONAL OBJECTIVES (PEOs):**

1. To educate Students about the social and economic, legal and political, environmental and physical, governance and management aspects of urban and regional planning. Students gain knowledge through class room learning, field visits, involve in industry and community collaborative work and also get opportunity to publish research paper, display exhibits, present papers in conferences and seminars.
2. Students are also exposed to build confidence and capacity to work in academic, professional, corporate and voluntary sector work environment towards preparation, execution, implementation and monitoring of Urban and Regional Planning assignments with appropriate knowledge in concepts, and theories, methods and techniques, social realities and technological advancement.
3. To acquire advanced knowledge in Urban and Regional Planning practices by exposed to multi disciplinary learning environment and also engage in individual and group work. The students study and learn with a group of selected discipline fresh graduates along with sponsor students from govt. departments, private companies and faculty members from educational institutions from India and other countries.
4. To create world class teaching, research, training and consultancy activities by (a) engaging experienced academics, professionals as part of teaching and evaluation of planning projects, dissertation and thesis and (b) student and faculty exchange program with a partnered university of the world.

**PROGRAMME OUTCOME:**

1. Learn to commit to the challenging social, economic, political and technological frontiers of urban and regional planning and create livable human settlements in rural, urban and regional areas.
2. Be a part of high performing academic, corporate and professionals of prestigious private, public and community organizations of socio-economic, environment and spatial planning relevance.
3. Possess ability, collective responsibility, leadership, decision making qualities and display to commitment towards adding knowledge through development of skills in relation to planning, analysis; interpret information and producing quality reports and maps.
4. Engage in undertaking socially useful activities related to urban and regional planning at home, neighbourhood, city, region and national levels with a globally exposed learning and front end technology.

Programme Educational Objectives	Programme Outcomes			
	PO1	PO2	PO3	PO4
I	√	√	√	√
II	√	√	√	√
III	√	√	√	√
IV			√	√

			PO1	PO2	PO3	PO4
YEAR 1	SEM 1	Demography and Statistics for Planning	√			
		Housing and Built Environment	√			
		Planning Theory and Techniques	√			
		Socio-Economic and Spatial Aspects of Planning	√			
		Traffic and Transportation Planning	√			
		Planning Project I	√	√	√	√
	SEM 2	City Planning	√			
		Environmental Planning	√			
		Planning Legislation and Professional Practice	√			
		Regional Planning	√			
		Elective I				
		Planning Project II	√	√	√	√
SEM 3	Project Formulation and Implementation	√				
	Urban Infrastructure and Network Planning	√				
	Elective II				√	
	Dissertation		√	√		
	Planning Project III	√	√	√	√	
	Internship Training				√	
SEM 4	Thesis		√	√	√	

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**MASTER OF PLANNING (M. Plan) - FULL TIME**  
**I TO IV SEMESTERS OF CURRICULA AND SYLLABI**

**SEMESTER I**

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	TP7101	Demography and Statistics for Planning	PC	3	3	0	0	3
2.	TP7102	Housing and Built Environment	PC	3	3	0	0	3
3.	TP7103	Planning Theory and Techniques	PC	3	3	0	0	3
4.	TP7104	Socio-Economic and Spatial Aspects of Planning	PC	3	3	0	0	3
5.	TP7105	Traffic and Transportation Planning	PC	3	3	0	0	3
6.	TP7111	Planning Project I	EEC	10	0	0	10	5
<b>TOTAL</b>				<b>25</b>	<b>15</b>	<b>0</b>	<b>10</b>	<b>20</b>

**SEMESTER II**

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C	Pre-requisites
1.	TP7201	City Planning	PC	3	3	0	0	3	<b>Pass in ----- Planning Project I</b>
2.	TP7202	Environmental Planning	PC	3	3	0	0	3	
3.	TP7203	Planning Legislation and Professional Practice	PC	3	3	0	0	3	
4.	TP7204	Regional Planning	PC	3	3	0	0	3	
5.		Elective I	PE	3	3	0	0	3	
6.	TP7211	Planning Project II	EEC	10	0	0	10	5	
<b>TOTAL</b>				<b>25</b>	<b>15</b>	<b>0</b>	<b>10</b>	<b>20</b>	

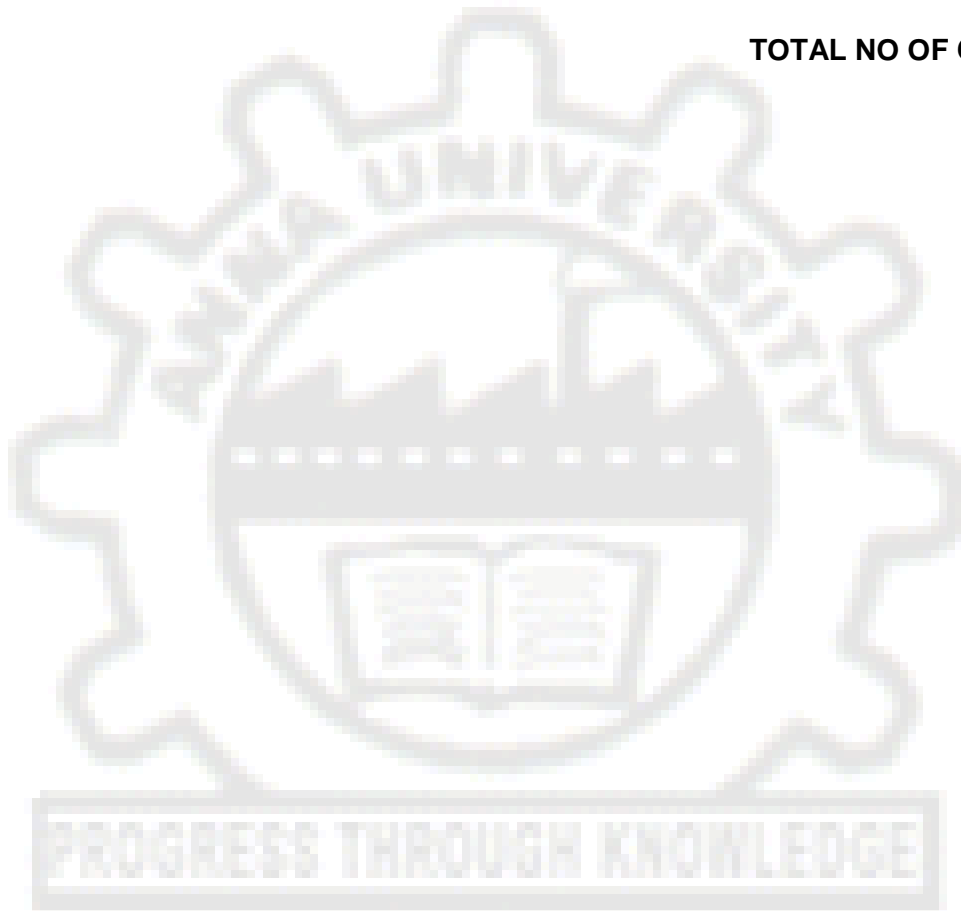
**SEMESTER III**

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C	Pre-requisites
1.	TP7301	Project Formulation and Implementation	PC	3	3	0	0	3	<b>Pass in ----- Planning Project II</b>
2.	TP7302	Urban Infrastructure and Network Planning	PC	3	3	0	0	3	
3.		Elective II	PE	3	3	0	0	3	
4.	TP7311	Internship Training	EEC	**	0	0	0	2	
5.	TP7312	Dissertation	EEC	10	0	0	10	5	
6.	TP7313	Planning Project III	EEC	10	0	0	10	5	
<b>TOTAL</b>				<b>29</b>	<b>9</b>	<b>0</b>	<b>20</b>	<b>21</b>	

**SEMESTER IV**

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C	Pre- requisites
1.	TP7411	Thesis	EEC	22	0	0	22	11	Pass in ----- Dissertation, ----- Planning Project III
<b>TOTAL</b>				<b>22</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>11</b>	

**TOTAL NO OF CREDITS : 72**



### PROFESSIONAL CORE (PC)

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
1.		Demography and Statistics for Planning	PC	3	3	0	0	3
2.		Housing and Built Environment	PC	3	3	0	0	3
3.		Planning Theory and Techniques	PC	3	3	0	0	3
4.		Socio-Economic and Spatial Aspects of Planning	PC	3	3	0	0	3
5.		Traffic and Transportation Planning	PC	3	3	0	0	3
6.		City Planning	PC	3	3	0	0	3
7.		Environmental Planning	PC	3	3	0	0	3
8.		Planning Legislation and Professional Practice	PC	3	3	0	0	3
9.		Regional Planning	PC	3	3	0	0	3
10.		Project Formulation and Implementation	PC	3	3	0	0	3
11.		Urban Infrastructure and Network Planning	PC	3	3	0	0	3

### PROFESSIONAL ELECTIVES (PE)

S. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
1.	TP7001	<u>Development Management Regulation</u>	PE	3	3	0	0	3
2.	TP7002	<u>Disaster Management</u>	PE	3	3	0	0	3
3.	TP7003	<u>E-Governance and Community Planning</u>	PE	3	3	0	0	3
4.	TP7004	<u>ICT Based City and Infrastructure Planning</u>	PE	3	3	0	0	3
5.	TP7005	<u>Real Estate Management</u>	PE	3	3	0	0	3
6.	TP7006	<u>Research Methodology in Planning</u>	PE	3	3	0	0	3
7.	TP7007	<u>Spatial Planning for Tourism Management</u>	PE	3	3	0	0	3
8.	TP7008	<u>Sustainable Development</u>	PE	3	3	0	0	3
9.	TP7009	<u>Urban Finance</u>	PE	3	3	0	0	3
10.	TP7010	<u>GIS Modeling in Urban and Regional Planning Lab</u>	PE	5	1	0	4	3
11.	TP7011	<u>Web Based Applications to Urban and Regional Planning Lab</u>	PE	6	0	0	6	3

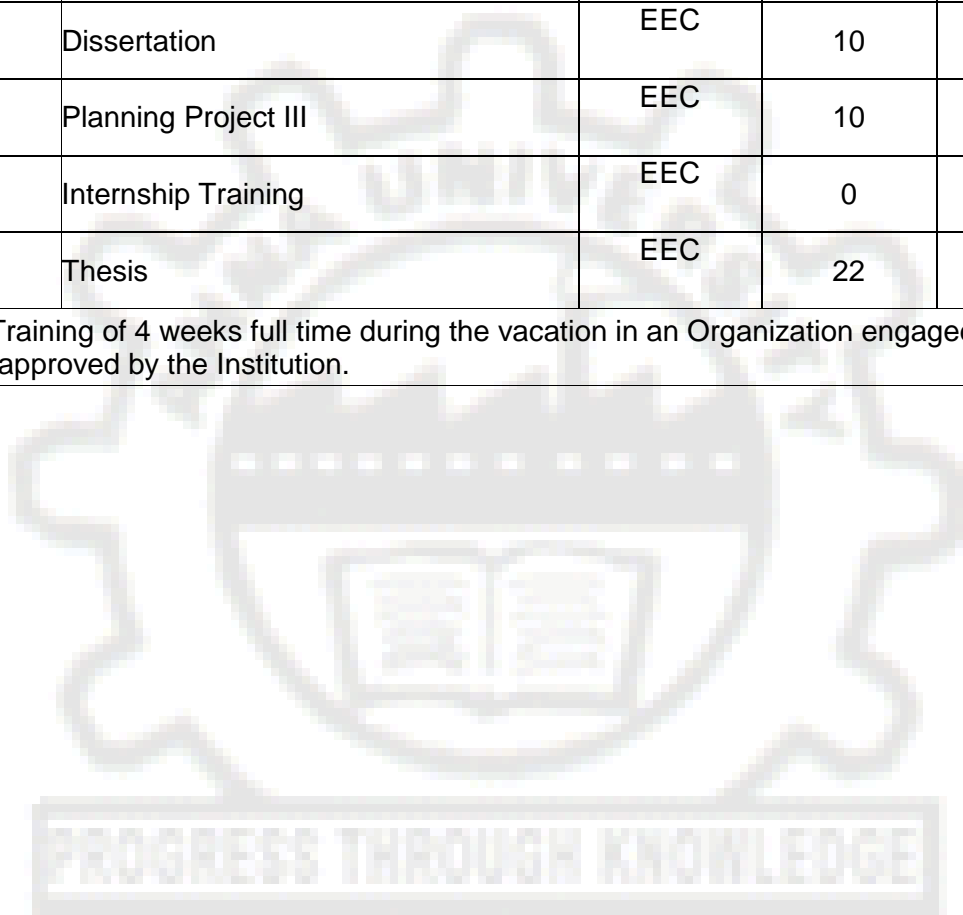
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*Sobhan*  
**DIRECTOR**

### EMPLOYABILITY ENHANCEMENT COURSES (EEC)

S. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
1.		Planning Project I	EEC	10	0	0	10	5
2.		Planning Project II	EEC	10	0	0	10	5
3.		Dissertation	EEC	10	0	0	10	5
4.		Planning Project III	EEC	10	0	0	10	5
5.		Internship Training	EEC	0	0	0	0	2
6.		Thesis	EEC	22	0	0	22	11

\*\* Internship Training of 4 weeks full time during the vacation in an Organization engaged in Planning activities and approved by the Institution.



**OBJECTIVE:**

To enhance the analytical skills of the students in capturing the planning issues, their analysis and drawing suitable inferences for decisions making.

**UNIT I DATA COLLECTION, COMPILATION AND CONDENSATION 9**

Scope and function of statistics in planning analysis - Data types and sources - Classification and tabulation of data - Measures of central tendencies - Arithmetic Mean, Median and Mode – Measures of dispersion – Pictorial representations of data

**UNIT II SAMPLING AND SURVEYS 9**

Methods of primary data collection – Principles in design of questionnaires – Principles of sampling – Types of sampling – Sampling of population and area – Sources of error – Sample size

**UNIT III STATISTICAL INFERENCE 9**

Elementary probability-concepts and definitions – Theories of addition and multiplication - Theory of estimation and testing of hypothesis – Tests for means and proportion – Non-Parametric tests – Correlation and regression analysis

**UNIT IV DEMOGRAPHIC CHARACTERISTICS & THEIR MEASURES 9**

Distribution and structure of population – Population change-causes and implications – Demographic characteristics of population and their measures – Data sources and limitations – Crude and specific rates – Methods of standardization

**UNIT V POPULATION PROJECTION & LIFE TABLES 9**

Population projection methods – Application contexts - Migration analysis – Description and construction of life tables

**TOTAL: 45 PERIODS****LEARNING OUTCOME:**

The students will gain skills in compilation and presentation of planning data. Also they will become capable of using fundamental statistical methods in analyzing planning data, drawing inferences and decision making. Further, the students will develop understanding over the demographic characteristics of population, various measures of demography and their measures useful in planning.

**REFERENCES:**

1. Gupta S.C, 'Fundamentals of Statistics', Himalaya Publishing House, New Delhi, 2004.
2. Juha Alho, Bruce Spencer, 'Statistical Demography and Forecasting' Springer, 2005.
3. Morris Hamburg, 'Statistical Analysis for Decision Making', Harcourt Brace Jovanovich, Inc., New York, 1977.
4. Paul H Garthwaite, I. T. Jolliffe, Byron Jones, 'Statistical inference' Oxford University Press, 2002.
5. Pollard A. H (et al), 'Demographic Techniques', Pergamon Press, Sydney, 1981.
6. Richard A. Johnson, 'Probability and Statistics for Engineers', Macmillan Business Books, New Delhi, 2000.
7. Santhosh Gupta, 'Research Methodology and Statistical Techniques', Deep & Deep Publications Pvt. Ltd, New Delhi, 2003.
8. Thomas Alexander Aleinikoff, 'International Legal Norms and Migration: An Analysis' United Nations Publications, 2002.

**OBJECTIVE:**

The objective of this course is (a) to expose students about origin, growth and development of human settlements from ancient times to the present context and (b) to understand changes in the housing character and patterns with reference to technology environment and culture of society.

**UNIT I HUMAN SETTLEMENTS 8**

Culture, civilization and human settlements - Physical form and growth of settlements during agrarian, industrial and modern society - Housing character and its information with reference to culture and technological changes and development.

**UNIT II HOUSING 9**

Types – design and planning – Typology of housing, family, community and housing - population growth and urban and rural settlement - Impact of industrialization and urbanization on housing and built environment – Housing design, standards, layout preparation, sanction and approval and concerned agencies – Green house and eco friendly housing.

**UNIT III HOUSING AND INFRASTRUCTURE 10**

Housing – utilities and services and community facilities - Socio-economic and spatial aspects of housing – Planning norms and standards - Housing, formal and informal settlements – Homelessness and Indian Society.

**UNIT IV HOUSING – RURAL AND URBAN CONTEXT 9**

Rural housing and urban housing in India and Abroad – Demand and supply of housing – Role of National, State and Local governments, NGO'S, corporate sectors in housing and built environment.

**UNIT V HOUSING - GOVERNANCE AND MANAGEMENT 9**

Housing market and housing finance – Housing-information system, governance system, technology and community – Gated community-emergence and management system.

**TOTAL: 45 PERIODS****LEARNING OUTCOME:**

Students are introduced to the historical evolution of housing and community living. It also facilitates students to explore the past and relate with the technology and culture towards living environment of modern society.

**REFERENCES:**

1. Bridget Franklin, 'Housing Transformations Shaping the Space of Twenty-First Century Living, Routledge Publishers, UK, 2006.
2. Constantinod A.Doxiadis, 'Ekistics', Hutchinson of London, 1968.
3. Graham Towers, 'Introduction to Urban Housing Design, Routledge, London, 2005.
4. Henry O. Pollakowski, 'Urban Housing Markets and Residential Location Lexington Books, UK, 1982.
5. Jain A.K., 'Urban Housing and Slums, Readworthy Publications, Delhi, 2009.
6. Jerome Rothenberg, George C. Galster, 'The Maze of Urban Housing Markets: Theory, Evidence, and Policy, Routledge Publishers, London,1991.
7. Mark Tewdwr-Jones, 'Spatial Planning and Governance, Palgrae Macmillan Publication, London, 2012.
8. Nair K. N. & G. Gopikuttan, 'Studies in Local-Level Development- Housing in Kerala: Impact of Investment, Technology and Institutions, Danish Books, Delhi, 2012.
9. Sabir Ali, 'Environment and Resettlement Colonies of Delhi, Har-Anand Publications. New Delhi, 1995.
10. Ya Ping Wang, 'Urban Poverty, Housing and Social Change in China, Rout ledge Publishers, New Delhi, 2004.



**OBJECTIVE:**

This course is an introduction to the history and theories of the planning profession. Selectively draw on the literature in planning theory and history to examine a series of questions fundamental to planning practice. The discussions, exercises, and readings on these questions will highlight alternative approaches to planning practice, and the approaches of current issues in the field of planning.

**UNIT I PLANNING PRINCIPLES AND PROCESS 9**

Process of evolution of human settlement planning - Principles in planning - Rationality in planning,- Blueprint and process mode - Disjointed incremental mode of planning - Normative versus functional mode of planning

**UNIT II PLANNING SYSTEM 8**

Planning system in India - Introduction to master plan, structure plan, detailed development plans, city corporate plan and smart plan - Comparison of planning systems in UK and USA.

**UNIT III PLANNING SURVEYS 10**

Type of planning surveys, data identification for various plan preparation - Aerial photo and remote sensing techniques in planning - Formulation of standards for various urban functions

**UNIT IV ANALYTICAL TECHNIQUES 10**

Delphi, trade off-game, simulation models, gravity analysis, and Lowry model - Threshold analysis and multivariate analysis - Techniques of delineation of planning areas and planning regions - Land use models.

**UNIT V OPTIMIZATION TECHNIQUES 8**

Optimization and economic analysis methods in project formulation and implementation, CPM, PERT, PBBS, Goal achievement matrix, Introduction to Cost-Benefit analysis

**TOTAL : 45 PERIODS****LEARNING OUTCOME:**

The above course introduces the history of spatial planning and the students will have the ability to understand various modes of planning. They will earn the skill to apply basic analytical and optimizing techniques needed.

**REFERENCES:**

1. Andreas Faludi, A Reader in Planning Theory. Pergamon Press Oxford, New York, 1973.
2. Belinda K P Yuen, 'Planning Singapore: from Plan to Implementation, Singapore Institute of Planners, Singapore, 1998.
3. Jonathan Barnett, 'Redesigning cities: Principles, Practice, and Implementation, Planners Press, Chicago, 2003.
4. Lee. C, 'Models in Planning; An Introduction to the use of Quantitative Models in Planning, Pergamon Press, New York, 1973.
5. Rabindra Nath Dubey and Bhim Rao, 'Urbanization and Urban Planning in India-Vision and Reality, Shree Nataraj Prakashan, New Delhi. 2010.
6. Ramachandran R, 'Urbanization and Urban Systems in India', Oxford University Press, Oxford. 1991.
7. Randall Crane and Rachel Weber, 'The Oxford Handbook of Urban Planning, Oxford University Press, New York, 2012.
8. Sundaram K.V, 'Urban and Regional Planning in India, Vikas Pub. House, New Delhi. 1977.
9. Viviana Kaminski, 'Urban Studies and Planning. World Technologies, New Delhi. 2012.

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Sobhan  
DIRECTOR

**OBJECTIVE:**

To teach the students the social sciences inputs (Urban and Rural Sociology, Urban and Regional Economics and Urban and Human Geography) for analyzing human settlements evaluation, growth & development and incorporating them while planning of human settlements at the rural, urban and regional levels.

**UNIT I SOCIO-SPATIAL ASPECTS****10**

Sociological concepts and social groups - Socio-spatial structures and Institutions related to urban and rural communities - Human and urban geography of urban areas – Human interaction and spatial form of cities- Ecological processes and socio-spatial structures in Indian Cities.

**UNIT II ECONOMIC BASE****8**

Economic concepts and frameworks - Macro and micro economics - Agglomeration economics - Economics of scale - Multiplier effect-concepts and scope - Economic base of cities and region - Understanding economic base and changing spatial structure of urban areas.

**UNIT III SOCIO - ECONOMIC, AND GEOGRAPHIC CONCERN AND DEVELOPMENT****10**

Geographical, sociological and economic aspects of rural and urban Development - Government, non-government and community participation in the local and regional area planning and development.

**UNIT IV URBAN LAND USE AND SETTLEMENTS ORGANIZATION****7**

Land use determinants - Location dynamics of urban Land use - Spatial organization of urban settlement - Social and economic Impacts of urban growth and expansion.

**UNIT V URBAN STRUCTURE & URBANIZATION****10**

City-region, urban sprawl, and urban fringe - Urbanization in the World and India at a glance - Urban development in Tamil Nadu and Chennai city with reference to settlements, population distribution, economic activities and governance.

**TOTAL : 45 PERIODS****LEARNING OUTCOME:**

The course illustrates that the students think and analyze the spatial planning attributes from the social and economic perspective. This subject facilitate graduates towards sensitize about society and environment.

**REFERENCES:**

1. Arthur Kohun, 'History Builds the Towns', Lund Humphries, London, 1953.
2. Bhatt Caste, 'Class and Politics', Manohar Book Service, Delhi. 1975.
3. Carter H, 'The Study of Urban Geography', Edward A Old, London. 1972.
4. Chapin F.S, 'Urban Land use Planning', Higg & brothers, New York, 1965.
5. Antony Giddens and Philip W Sutton, 'Sociology-Introductory Readings, Polity, Oxford. 2010.
6. Global Review of Human Settlements, Pergamon Press, London, 1976.
7. Xiangming Chen, 'Introduction to Cities: How Places and Space shape Human Experience, Wiley Blackwell, UK 2012
8. Sundaram K.V. (Ed), 'Geography & Planning', Concept Publishing Co., New Delhi, 1985.
9. Wilson R.A. & D.A. Schulz, 'Urban Sociology', Prentice Hall Inc., New Jersey, 1978.
10. Saskia Sassen, 'Cities in the World economy', Pine Forge Publishers UK.
11. Philip McGann, 'Modern Urban and Regional Economics' Oxford University press London.2013.
12. Frank Tonkins, 'Cities by Design: The Social Life of Urban Form' Polity Publications, UK. 2013.

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**OBJECTIVE:**

Traffic and transportation planning is an integral part of spatial planning at any level. Therefore, it is proposed to give an overall framework of this course to the students of M. Plan programme in the first semester itself. The objective of this course is to give an historical perspective of road development in India, salient features of road geometric and intersections, traffic surveys, planning aspects of different mass transportation systems and introductory part dealing with highway capacity.

**UNIT I TRANSPORT DEVELOPMENT IN INDIA 8**

Economic, political and social significance of transport development - Development of rail, water and air transport policies and programmes in India - Scope and content of Nagpur, Bombay and Lucknow road development plans - Current trends in the road development sector in India.

**UNIT II GEOMETRIC DESIGN 10**

Highway classification - Traffic characteristics – Horizontal and Vertical alignment – Sight distance – Cross-sectional elements – At grade and grade separated intersections.

**UNIT III TRAFFIC SURVEYS 10**

Volume Count – Origin and Destination – Parking and Public Transport Surveys – Inventory of Transport facilities – Methods of Survey – Analysis – Inferences.

**UNIT IV MASS TRANSPORTATION SYSTEMS 8**

Different modes – Capacities – Limitations – Planning aspects – Coordination – Para transit modes – Private transport.

**UNIT V HIGHWAY CAPACITY 9**

Concept of PCU and level of service – Capacity of uninterrupted flow conditions – Flow affecting capacity and level of service – Capacity of rural and urban roads.

**TOTAL :45 PERIODS****LEARNING OUTCOME:**

In the urban transportation planning process, discuss its relationship to transportation facilities development, treat specific techniques of analysis and evaluation for urban transportation planning, and discusses possible means of achieving project and societal objectives.

**REFERENCES:**

1. Dimitriou H.T, Urban Transport Planning, A Development Approach, Routledge, London, 1992.
2. Hutchinson, B.G., 'Principles of Urban Transport Systems Planning' McGraw – Hill Book Co., New York, 1980.
3. Johanna Zmud, Martin Lee-Gosselin, 'Transport Survey Methods: Best Practice for Decision Making' Emerald Group Publishing, 2013
4. John W. Dicky, 'Metropolitan Transportation Planning', McGraw – Hill Book Co., New York, 1980.
5. Kadiyali L. R, 'Traffic Engineering and Transportation Planning' Khanna Publications. New Delhi,1966.
6. Michael J.Bruton, 'An Introduction to Transportation Planning', Hutchinson, London, 1985.
7. Michael D. Meyer, Eric J. Miller, Urban Transportation Planning: A Decision-Oriented Approach, McGraw-Hill Higher Education, 2001
8. Vaidya B.C 'Geography Of Transport Development In India' Concept Publishing Company, 2003.
9. Vukan R. Vuchic, 'Urban Transit Systems and Technology' John Wiley & Sons, 2007.

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The Planning project I intends to expose the students to

1. Development of communication skills – Map preparation, report writing and presentation skills
2. Understanding of various surveys relating to preparation of plans for urban and rural Settlements
3. Preparation of plans for micro-level units
  - a) **Study at Village level** - Structure of village, problems, current rural improvement programmes and structure of administration.
  - b) **Study on Urban Land uses**  
Land use Zones – Land use activities – Their functional and spatial characteristics – Issues related to functions, spaces and Infrastructure
  - c) **Planning at Residential Layout Level**  
Review of literature, site analysis, and study of existing layouts - Design criteria's – Existing act and byelaws - Alternative designs - Finalization of designs, Cost of the projects and model.

**TOTAL : 150 CREDITS**

**OBJECTIVE:**

This course is planned to offer the students, the actual process of plan making at different levels i.e. city level and zonal levels and giving the case studies and their overview. The other aspects which are proposed to be dealt in this course are the development control rule which gives the required legal support to the city plans and also contain elementary aspects of urban renewal.

**UNIT I INTRODUCTION 8**

Contemporary theories and concepts in city planning - Political influence and polarization of economic, socio-cultural and administrative activities.

**UNIT II MASTER PLAN 12**

Plan making process, delineation of planning area, assessment of developmental issues - Plan period and phasing - Projection of requirements - Formulation of aim and objectives - Development proposals and land use planning - Delineation of zones - Resource mobilization - Implementation mechanism - Monitoring and review, Public participation - Deficiency of master plan.

**UNIT III ZONAL PLAN AND DEVELOPMENT CONTROL RULES 12**

Concept, priority in the preparation - Difference between master plan and zonal plan - Plan making process - Assessment of developmental issues - Projection of requirements - Land use zones and sub classification - Permissible activities, appellant activities, and prohibited activities - Appeals, appellant authority, and unauthorized developments.

**UNIT IV CASE STUDIES 6**

Method of preparation, issues and proposals, and critical appraisal.

**UNIT V URBAN RENEWAL 7**

Urban renewal as a part of metropolitan plan - Techniques of identification of urban renewal areas - Conservation, rehabilitation and redevelopment - Management of urban renewal areas - Incentive zoning and transfer of development rights.

**TOTAL:45 PERIODS**

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## LEARNING OUTCOME:

As an outcome of the above course the graduates will have the ability to conceptualize, analytically define, and treat master plan, zonal plans and detailed development plan professionally, They would earn skills in preparing and reviewing the above plan.

## REFERENCES:

1. Andreas Faludi and Sheryl Goldberg, 'Fifty years of Dutch National Physical Planning, Alexandrine Press, Oxford, 1991.
2. Daniel G. Parolek, AIA, Karen Parolek, Paul C. Crawford, FAICP, Form Based Codes: A Guide for Planners, Urban Designers, Municipalities, and Developers, John Wiley & Sons, 2008
3. Darren Robinson, 'Computer Modeling for Sustainable Urban Design: Physical Principles, Methods and Applications, Earth scan, Washington, DC, 2011.
4. John L. Taylor and David G. Williams, 'Urban Planning Practice in Developing Countries, Pergamon Press, Oxford, 1982.
5. Kaiser Edward J., 'Urban Land use Planning, University of Illinois Press, Urbana, 1995.
6. Lichfield N.,(Ed), 'Evaluation in Planning: Facing the Challenge of Complexity, Kluwer Academic Publications, Dordrecht. 1998.
7. Melville Campbell Branch, 'Comprehensive Planning for the 21st Century: General Theory and Principles, Westport, Conn. Praeger, 1998.
8. Randall Crane and Rachel Weber, 'The Oxford Handbook of Urban Planning, Oxford University Press, New York, 2012.
9. Stuart Chapin and Edward John Kaiser, 'Urban Land use Planning, University of Illinois Press, Urbana, USA., 1979.
10. Ananya Ray and Aitiwa Ong Eds, 'World of Cities: Asian Experiments and the Art of Being Global, Wiley Blackwell, US 2011.

TP7202

ENVIRONMENTAL PLANNING

L T P C  
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## OBJECTIVE:

Environmental planning plays a vital role in balancing the needs of society by creating and carrying out programs, policies and regulations which consider the current and future impact of human development on the natural environment. This course will expose you to conceptual tools for understanding the two principal avenues through which the natural and built environment are managed – the rule –making procedures of environmental policy and the future-imaging of environmental planning.

### UNIT I DEVELOPMENT CONSEQUENCES ON ENVIRONMENT 9

Components of environment – Classification of environmental resources - Purpose and objectives in environmental protection, planning and management – Consequence of development over urban and rural settlements – Environmental concerns at local, regional and global levels.

### UNIT II ENVIRONMENTAL MANAGEMENT AND STANDARDS 6

Institutional and legal support in management of environment – Environmental policies, and protocols - Global environmental initiatives - Environmental Indicators - Concepts and measures in environmental standards

### UNIT III ENVIRONMENTAL IMPACT ASSESSMENT 9

Overview of environmental impact assessment practice in India - Types, conceptual approach and phases of EIA – Impact identification methodologies – Prediction and assessment of social, cultural and economic environments

**UNIT IV ENVIRONMENTAL DECISION MAKING****9**

Generation and evaluation of alternatives – Decision methods – Mitigation and environmental management plan – Public participation in the process of environmental decision making process

**UNIT V ENVIRONMENTAL APPROACH IN PLANNING****12**

Environmental concepts – Sustainability and environmental carrying capacity – Environmental strategies in land use, transportation, infrastructure planning and management - Legislative requirements, public awareness and community participation – Environmental management options

**TOTAL : 45 PERIODS****LEARNING OUTCOME:**

The outcome of this course is to provide the students with professional knowledge, skills and techniques necessary to plan, manage and maintain a balanced, sustainable and productive environment.

**REFERENCES:**

1. Asesh Kumar Maitra, 'Urban Environment in Crisis', New Age International (P) Limited, Publishers, New Delhi. 1998.
2. Avijit Gupta and Mukul G. Asher, 'Environment and the Developing World', John Wiley & Sons, New York, USA. 1997.
3. Charles H. Eccleston, 'Environmental Impact Assessment: A Guide to Best Professional Practices' CRC Press, 2011
4. Charles H. Eccleston, NEPA and Environmental Planning: Tools, Techniques, and Approaches for Practitioners, CRC Press, 2010
5. Jerzey A. Filar, Alain Haurie, 'Uncertainty and Environmental Decision Making' Springer, 2010
6. Charles H. Eccleston, 'Environmental Impact Assessment: A Guide to Best Professional Practices' CRC Press, 2011
7. Charles H. Eccleston, NEPA and Environmental Planning: Tools, Techniques, and Approaches for Practitioners, CRC Press, 2010
8. Jerzey A. Filar, Alain Haurie, 'Uncertainty and Environmental Decision Making' Springer, 2010
9. Larry W. Canter, 'Environmental Impact Assessment', McGraw-Hill, Inc., New York, 1996
10. Pannirselvam R and Karthikeyan, 'Environmental Impact Assessment' SPGS Publishers, Chennai. 2005.
11. Rao P.K, 'Sustainable Development', Blackwell Publishers, Massachusetts, USA. 2001.

**TP7203****PLANNING LEGISLATION AND PROFESSIONAL PRACTICE****L T P C  
3 0 0 3****OBJECTIVE:**

To make the students aware and understand the relevance of constitution and legislation in relation to spatial planning. The course also facilitates students to experience implications of the existing legislations relating to planning and its importance and shortcomings. The students are exposed to problems and prospects of town planning in terms of professional practice.

**UNIT I CONCEPT OF PLANNING LEGISLATION****8**

The concept of law, Indian constitution. national goals - Rights of ownership and development of property - Statutory control as a positive tool in plan preparation and implementation - Evolution, scope and significance of planning legislation - History and survey of development of planning legislation in India.

**UNIT II ACTS AND RULES GOVERNING LOCAL BODIES 12**  
Panchayat Act, Municipality Act, Corporation Act, TNULB Act, - Provisions in the above acts related to functions, powers, role and responsibilities of local bodies including elected representatives and officers – The 73<sup>rd</sup> and 74<sup>th</sup> CAA and their implications on planning and development - Local government finance, revenue, expenditure and resource mobilization.

**UNIT III ACTS RELATED TO PLANNING AND IMPLICATIONS OF LAWS AND LEGISLATION ON DEVELOPMENT 10**  
Review of Town and Country Planning Act of Tamil Nadu, Urban Development Act, Public Health Act, Slum Improvement Act, Housing Act, and Pollution Act - Acts related to Environment - Legal aspects of ownership - Lease and tenancy transfers - Development management - Law relating to utilities and services - Implications of land ceiling, betterment levy and development charges - Concept of arbitration.

**UNIT IV PROFESSIONAL PRACTICE 9**  
Professional role responsibility and planning consultancy service - Professional ethics-code of conduct and professional charge - Role of inter disciplinary group - Consultancy agreements, and contracts - Project proposals formulation - Changing professional practice in India and abroad.

**UNIT V PROFESSIONAL INSTITUTIONS 6**  
Aim and objectives of professional institutions - Private and international town planning organizations - Institution buildings and setting up private practice and work - Career options and prospects – Case studies.

**TOTAL:45 PERIODS**

**LEARNING OUTCOME:**

Knowledge acquired in various Acts/Laws relating to spatial planning will enable the students to apply them in professional practice as well as apply in their day to day life. Orientation towards the significance of planning rules and regulations would help students to deal urban and regional planning issues within framework of human rights and environmental protection.

**REFERENCES:**

1. Anil Chaturvedi, 'District Administration', Sage Publications India Pvt. Ltd, New Delhi, 1988.
2. Ashok Kumar Jain, 'Low Carbon City: Policy, Planning and Practice' Discovery Publishing House, 2009
3. B.I.S., 'National Building Code of India', ISI, New Delhi. 1980
4. C.K.Bikseswaran, 'The Madras Building (Lease and Rent Control Act), 1960, Sitaraman and Co., Madras.1964
5. Gopal Bhargava, 'Socio-economic and Legal Implications of Urban Land Ceiling and Regulations', Abhinav Publishing Company, New Delhi.1983
6. Government of Tamil Nadu, 'The Tamil Nadu Town and Country Planning Act, 1971, Government of Tamil Nadu. 1976
7. Govt. of India, 'The Land Acquisition Act, Ministry of Housing and Urban Development, New Delhi. 1894
8. Joshi. A, 'Town Planning: Regeneration of Cities' New India Publishing, 2008
9. Patsy Healey, Robert Upton, 'Crossing Borders: International Exchange and Planning Practices' Routledge, 2010.

**OBJECTIVE:**

To make the students understand the concept of regional planning and make them skillful in applying various methods and techniques of regional planning.

**UNIT I CONCEPT OF REGIONAL PLANNING 9**

Concept and need for regional planning and regional development – Sustainable regional development and its components – Region & its types - Regionalization - Evolution of regional planning.

**UNIT II TECHNIQUES OF REGIONAL ANALYSIS 9**

Input-output analysis - Shift and share analysis - Concentration and dispersal - Industrial location theory.

**UNIT III GROWTH MODELS 9**

Growth pole and growth center - Core periphery concept - Central place theory - Agricultural land use model - Models of industrialization and regional development - Resource allocation models.

**UNIT IV REGIONAL DEVELOPMENT PATTERN 9**

Regional disparities - Resources in regional development - Multi-level planning - District planning - Special area development programmes and schemes - Rural development schemes.

**UNIT V CASE STUDIES 9**

Regional planning in India - Regional planning-National & International case studies.

**LEARNING OUTCOME**

The students will understand the need for Planning at various levels & especially the thrust and focus of regional planning. The students will become familiar with the contents, approach and methodology of preparation of regional plans. They will also learn important concepts & techniques in regional planning.

**TOTAL: 45 PERIODS****REFERENCES:**

1. Allen G.Noble, (Eds), 'Regional Development and Planning for the 21<sup>st</sup> Century: New Priorities and New Philosophies', Aldershot, USA, 1988.
2. Andy Pike, Andres Rodriguez-Pose, John Tomaney, 'Handbook of Local and Regional Development', Taylor & Francis, 2010
3. Chand Mahesh and U.K.Puri, 'Regional Planning in India', Allied Publishers, New Delhi, 1983
4. Dadao. Lu, Jie Fan, 'Regional Development Research in China: A Roadmap To 2050' Springer, 2010
5. David Mosse, 'Development Process: Concepts and Methods for Working with Complexity', Loutledge, London, 1998
6. Hamilton.F, (Ed), 'Industrialization in Developing and Peripheral Regions', Croom Helm, London, 1997
7. Isward Walter, 'Methods of Regional Analysis – An Introduction to Regional Science, MIT Press, Cambridge, 1960.
8. John Glasson, Tim Marshall, Tim Marshall, 'Regional Planning - Natural and Built Environment' Routledge, 2007
9. Roy Prodipto and Patil BR (Eds), 'Manual for Block Level Planning Mcmillan Company India Limited, 1977.



The Planning Project II attempts to train students in the preparation of development plan conceived within the framework of the approved perspective plan of a medium town having a plan period of 5 or 10 years.

The students are focused to learn to review and prepare plan for a medium urban settlement such as Development Plan / Master Plan / Structure Plan. The components such as physical characteristics, natural resources, demographic characteristics, economic base, employment, shelter, transportation, social and infrastructure facilities, finance, institutional set-up etc. are to be learned. Depending on the selection criteria an urban settlement would be selected and the information regarding the components stated above would be collected both from the primary and secondary sources and analyzed. Stockholders consultative meeting are also conducted during the field visit. A report / maps / charts are the media through which the case study is expected to be presented.

**TOTAL : 150 PERIODS**

TP7301

**PROJECT FORMULATION AND IMPLEMENTATION**L T P C  
3 0 0 3**OBJECTIVE:**

This course aims at examining techniques and procedures relevant for project planning and implementation in developing countries, including project identification, feasibility analysis, design and implementation monitoring. It also considers how to evaluate economic and distributive effects of completed or ongoing infrastructure development projects. Specific attention has been given to show how institutional setting and other practical influences affect the use of conventional analytical tools.

**UNIT I INTRODUCTION TO PROJECT FORMULATION 9**

Overview of the project cycle – Planning process and project planning – Search for project ideas – Strategies in capital allocation - Key elements in project formulation – Methods and tools for project formulation – Project identification and selection –Preparation of feasibility reports.

**UNIT II PROJECT ANALYSIS 9**

Capital cost estimation - Market and demand analysis – Technical analysis – Environmental analysis – Financial and economic analysis – Cash flow generation.

**UNIT III PROJECT APPRAISAL 10**

Time and value of money – Investment criteria-internal rate of return, net present value, cost-benefit analysis, and social cost benefit analysis – Project risk analysis – Appraisal of marketing strategy - Pricing and credit worthiness and management capabilities.

**UNIT IV PROJECT FINANCING AND IMPLEMENTATION 9**

Funding options for urban development projects - Tender procedure- Tamil Nadu transparency in tender rules - Organizational aspects in project management – Network techniques for project management.

**UNIT V PROJECT MONITORING AND EVALUATION 8**

Need and techniques for monitoring – Performance and process monitoring – Monitoring schedules

**TOTAL :45 PERIODS**

*Attested*

*Sobhan*  
DIRECTOR

Centre For Academic Courses  
Anna University, Chennai-600 025.

**LEARNING OUTCOME:**

Plan identifies projects and the success of plans depends on Implementation of identified projects. In this context, students will develop knowledge on important aspects of project formulation, criteria for project appraisal and project management.

**REFERENCES:**

1. Gudda, 'A Guide to Project Monitoring and Evaluation' Author House, 2011
2. Gray F.Cilford, Larsen W Erik, Desai V. Gautam, "Project Management" Tata McGraw Hill Edition, New Delhi, 2010.
3. Henderson PD, 'Investment Criteria for Public Enterprises, Penguin Books, New Delhi 1999.
4. Michael Bambarger and Eleanor Hewitt, 'Monitoring and Evaluating, Urban Development Programmes: A Hand Book for Program Managers and Researchers, The World Bank. 1988.
5. Kurowski Lech, David Sussman., "Investment Project Design - A Guide to Financial and Economic Analysis with Constraints" John Wiley & Sons publications. 2011
6. Prasanna Chandra, 'Projects', Tata McGraw-Hill Publishing Company Limited, New Delhi, 2009
7. Raghuram G, Rekha Jain, SidharthSinha, PremPangotra and Sebastian Morris, 'Infrastructure Development and Financing, Macmillan India, Delhi, 2000
8. Samuel Mantel, Jack Meredith, Scott Shafer, 'PROJECT MANAGEMENT CORE TEXTBOOK' John Wiley & Sons, 2006
9. Warren C. Baum, 'The Project Cycle', World Bank – Economic Development Projects, Washington, 1993.

**TP7302****URBAN INFRASTRUCTURE AND NETWORK PLANNING****L T P C  
3 0 0 3****OBJECTIVE:**

The broad objective of this course is to align land use planning along with Infrastructure planning such as water supply, sewerage, solid waste management, roads and street lighting etc.

<b>UNIT I</b>	<b>URBAN FORMS, SIZE AND INFRASTRUCTURE</b>	<b>10</b>
Obligatory and discretionary services - Implication of urban form and size on services - Norms and standards - National and Local guidelines - Recommendations of Rakesh Mohan Committee.		
<b>UNIT II</b>	<b>SITING OF SERVICES AND NETWORK</b>	<b>9</b>
Lay of urban area, siting of services Vs land use and efficiency - Basics of service network.		
<b>UNIT III</b>	<b>ESSENTIAL SERVICES</b>	<b>12</b>
Demand strategy, issues and tasks, operation and management aspects of each service—water supply, sewerage / drainage, solid waste management, roads and street lighting and living environment.		
<b>UNIT IV</b>	<b>NETWORK OF SERVICES</b>	<b>8</b>
Priority - Placement network options - Effective system analysis.		
<b>UNIT V</b>	<b>SERVICE PLANNING PROCESS</b>	<b>6</b>
Assessment of status, demand, and community participation - Corporate approach, investment and implementation mechanism.		

**TOTAL :45 PERIODS**

**LEARNING OUTCOME:**

The outcome of this course is to provide students an understanding of the infrastructure network like water supply, roads, sewer, solid waste and street lighting to enable them to evolve spatial strategy for cities and towns

**REFERENCES:**

1. CPHEERI, M/c UA, 'Manual on Water Supply and Sewerage', New Delhi, 1991.
2. Dhaliwal S.S, 'Urban Infrastructure Development in Small and Medium Towns' Deep and Deep Publications, 2004
3. Schubeler Peter , Participation and partnership in urban infrastructure management, World Bank Publications, 1996.
4. Simon Guy, Simon Marvin, Will Medd, Timothy Moss 'Shaping Urban Infrastructures: Intermediaries and the Governance of Socio-Technical Networks' Routledge, 2012
5. Steel E.W, 'Water supply and Sewerage', McGraw Hill Book Co.Inc., New York, 1984.
6. T.P.Salvats, 'Environmental Engineering and Sanitation', Wiley and Sons, New York, 1972.
7. United Nations, 'Solid waste Management' BSWM, Washington, DC, 1970.
8. Wellmann and Marcus, 'Urban Infrastructure and Finance Management, Wiley Blackwell, UK 2012.

**TP7311****INTERNSHIP TRAINING**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
*	*	*	2

The students shall undertake the Internship Programme, in an Organization engaged in activities relating to Urban & Regional Planning for a period of 4 weeks. The Internship Training is aimed at providing the necessary acumen and knowledge to the students to become employable by any Planning Organization. The Internship is also expected to make familiar the practical demands and complexities of planning. The students may also utilize the Internship Programme to strengthen the quality of their Dissertation/ Thesis works.

The students are expected to complete the Internship Training before the commencement of the fourth semester and enroll for the same in the fourth semester along with Thesis. The students shall submit a Internship Training Report, on or before the last working day of the fourth semester. The students shall be evaluated on the basis of the Report submitted and through a Viva Voce Examination conducted, as part of the End Semester Examinations of the fourth semester.

**TP7312****DISSERTATION**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
0	0	10	5

Dissertation is a formal report written systematically on a particular topic as related to town and country planning. This exercise is taken up as to widen and enrich the literature pertaining to a topic of research. It may focus upon cross section of literature of a topic of research. The material written systematically may be useful in fourth semester when the same topic with literature reviewed systematically be confined as a part of thesis. Also the outcome of literature review done during the dissertation could be helpful to formulate the Thesis during the IV<sup>th</sup> semester.

**TOTAL : 150 PERIODS**

Elaboration of the principals and techniques adopted and learnt themes and planning projects. Application of themes and techniques of planning in the preparation of development plans at regional, district, blocks, central village and village level, along with community action and participation plans. Review regional plan contents, methods and practices at local, national and international levels. Studies and analysis would consist of survey, local renewable development, settlement distribution pattern, environmental protection, institutional and implementation framework. Conducting Stake holders meeting to assess the community needs becomes very important input for the preparation of development plans. Identification of projects programmes and schemes with funding sources.

**TOTAL :150 PERIODS**

TP7411

**THESIS**

L T P C  
0 0 22 11

Students shall be required to undertake thesis work in the areas of relevance and concern in the urban and regional development process. The broad areas of study would include

1. Planning for region, urban development and renewal
2. Planning for infrastructure development
3. Urban governance, management and finance
4. Environmental and sustainable development
5. Housing, heritage conservation and tourism
6. Planning implications of Smart cities, Green cities, Digital Cities, Eco-Cities.
7. e-Governance and urban local governments and e-Participation of communities in city infrastructure planning and development
8. Any other emerging areas in the field of urban and regional planning

The thesis shall be submitted in the form of thesis report, presentation drawing sheets, slides and posters etc. Thesis work submission also includes all relevant information in a CD.

**TOTAL :330 PERIODS**

TP7001

**DEVELOPMENT MANAGEMENT REGULATION**

L T P C  
3 0 0 3

**OBJECTIVE:**

To familiarize the students on the concept of development and highlight the importance of regulated physical development. To acquaint the students on the importance of master plan approach, with particular reference to land use zones, and regulations relating to development of land and buildings.

**UNIT I INTRODUCTION TO DEVELOPMENT MANAGEMENT**

**3**

Urban development and management – Aspects of development-physical, social, and economic – Importance of physical development – Need for regulatory measures – Tools for regulating the development - Master plan, land use zoning and development regulations.

**UNIT II MASTER PLAN AND LAND USE ZONING**

**9**

Interface between master plan proposals and land use zoning – Classification of land use zones compatible and non-compatible uses - Basis for preparation of proposed land use plans, existing land use - Plan proposals - Physical characteristics and constraints - Demographic projections, linkages to transportation network and environmental issues – Need and methods for regulating the use within land use zones.

**UNIT III LAND DEVELOPMENT REGULATIONS 9**

Norms governing residential and industrial lay outs-linkage, hierarchy of roads, plot size, frontage, and open space reservations – Reservation of land for EWS - Allocation of land for public purposes - Provision of utilities and services – Environmental norms - Regulations relating to development of integrated townships, special economic zones, export processing zones, and IT Parks

**UNIT IV PLANNING NORMS FOR BUILDINGS 12**

Classification of buildings-ordinary buildings, special buildings including group development, multi storey buildings - Norms governing construction of buildings- road width, plot size, plot frontage, height, number of floors, floor space index - Parking - Open space reservation

**UNIT V CASE STUDIES 12**

Development regulations for Chennai Metropolitan Area, special economic zone and information technology parks developments in Tamil Nadu

**TOTAL : 45 PERIODS**

**LEARNING OUTCOME:**

The students will develop the skills required to prepare comprehensive land development proposals and gather requisite capabilities to scrutinize the land and building development proposals initiated by the public and private.

**REFERENCES:**

1. Govt. of Tamil Nadu, 'Second Master Plan for Chennai Metropolitan Area 2026' Chennai Metropolitan Development Authority Chennai 2008.
2. Government of India, 'Special Economic Zone Rules 2006', Ministry of Commerce & Industry, New Delhi. 2006.
3. Govt of Tamil Nadu, 'Town & Country Planning Act, 1971' Government of Tamil Nadu, Chennai
4. Government of India, 'Urban Development Project Formulation and Implementation Guidelines', Town & Country Planning Organization, New Delhi.2009.

**TP7002 DISASTER MANAGEMENT L T P C  
3 0 0 3**

**OBJECTIVE:**

To generate interest in students to understand the causes and consequences of disasters and its importance in planning and managing cities and towns towards mitigation and rehabilitation.

**UNIT I DISASTER 8**

Concepts and processes - Disaster cycle-myths and realities- Disaster-types, causes and consequences - Impacts of disasters on living things, properties, nature and community - Disaster- its importance towards multi-disciplinary perspective.

**UNIT II NATURAL AND MAN-MADE DISASTERS 12**

Disaster and natural environment - Disaster and man-made environment - Industrial pollution and health Hazards - Industrial pollution and natural resource damage - Social vulnerability and damage to people and property - Case studies related to natural disaster and man-made disasters at the national and international levels.

**UNIT III DISASTER: PHYSICAL PLANNING AND RESOURCE MANAGEMENT 12**

Physical planning imperatives on the development of villages, towns and cities and regions - Urban and regional land use planning and settlement growth - Planning standards, building bye-laws, legal, administrative and institutional support systems and disaster management - Disaster prevention and mitigation - Disaster preparedness and rehabilitation - National Disaster Management Act 2005.

*Attested*

*Sobhan*  
**DIRECTOR**

**UNIT IV      DISASTER AND TECHNOLOGY****6**

Technology-building materials, disaster prone design, planning and management of cities and villages - Communication systems and technological inputs towards disaster management.

**UNIT V      DISASTER EDUCATION AND COMMUNITY BUILDING****7**

Community awareness and action - Participatory management of community and disasters - NGO role and disaster preparedness and management, national and international perspectives – Government-roles and various levels in terms of proactive and reactive measures towards managing disasters - Gender perspectives-women, children, aged, physically disabled and disaster management.

**TOTAL:45 PERIODS****LEARNING OUTCOME:**

The topics of the subjects attempt to sensitize the students about the ill effect of the disasters as well as the importance of preparedness. It also inculcates the students that technology as well as community effects are important to mitigate disaster.

**REFERENCES:**

1. Cutter L. Susan, 'Environmental Hazards and Risks, Printice Hall of India Pvt. Ltd, New Delhi, 1999.
2. Horst Friedrich, 'Earthquake Disaster Management', Peter lang, London, 2005.
3. Journal of Socio Economic Development Record Vol.12 No.1 Jan-Feb. 2005.
4. Ian Davis, 'Safe Shelter within Unsafe Cities: Disaster Vulnerability and Rapid Urbanization, Open house International, UK, 1987.
5. Mary C. Comerio, 'Disaster Hits Home, New Policy for Urban Housing Recovery', Oxford University Press, London, 2001.
6. Naseem Ahmed, 'Disaster Management', Kilaso Books, New Delhi. 2003.
7. Parag Diwan, 'A Manual on Disaster Management', Pentagon Earth, New Delhi, 2007.
8. Satendra, 'Sustainable Rural Development for Disaster Mitigation', Concept Publishing Co. 1 New Delhi, 2004.
9. Shyam Divan and Armin Rosencranz, 'Environmental Law and Policy in India, Cases, Materials and Statutes, Oxford University Press New Delhi. 2001.
10. World Bank, 'Building Safer Cities, World Bank, Geneva, 2013.

**TP7003****E-GOVERNANCE AND COMMUNITY PLANNING****L T P C  
3 0 0 3****OBJECTIVE:**

Students understand that planning is public domain where in community has a significant role in planning, executing and managing development in their local areas. The subject mould students understanding about modern technology demands for the participation of stockholders from conventional and electronic mediums in decision making and the delivery of civic services.

**UNIT I      GOVERNMENT & GOVERNANCE****12**

Constitution and democracy - Government Vs Governance - The role of community in the formation of government - The involvement of people in governance of the Local government – Existing pattern of government and people relationships – Government system and public administration in India and other nations

**UNIT II COMMUNITY PLANNING 8**

Community-types and characteristics – Socio-economic and spatial planning and its influence in community planning in India – Community planning: theories, models and practice in India and abroad.

**UNIT III COMMUNITY PARTICIPATION 10**

Meaning, level, methods and approaches – Community centered participation Vs Government centered community participation - Experience from developed and developing countries towards community participation at social, economic, political and environment development

**UNIT IV E-GOVERNANCE AND E- GOVERNMENT 8**

e-Governance–concepts, practices and experience from India and other countries - e-Readiness and government - e-Governance in business, trade, industry, banking, NGO’s and people.

**UNIT V E-GOVERNANCE AND E- PARTICIPATION 7**

Role and practice of e-Governance in civic and social infrastructure service delivery by Urban Local Governments – myths and realities, success and failed e-Governance and e-Participation projects in India and other countries.

**TOTAL :45 PERIODS**

**LEARNING OUTCOME:**

The lessons attempts to mould students to develop responsibility as generates of livelihood and quality of life to the citizen though connect people, technology and local government.

**REFERENCES:**

1. Amartya Sen, and Jean Dreze ‘INDIA Economic Development and Social Opportunity’ OXFORD University Press. New Delhi, 1995.
2. Bosken F, ‘Knowledge, Innovation and Economic Growth: The Theory and Practice of Learning Regions, Edward Elgon, Cheltenham, 2000
3. Castells M, ‘The Information City’, Blackwell, Oxford, 2000
4. Clements D, Donald A , Earnshaw M and Williams A , ‘The Future of Community, Pluto Press, London, 2008.
5. Graham S and Marvin, S, ‘Telecommunication and the City: Electronic Spaces, Urban Places, Rent ledge, London, 1996.
6. John, Friedmann, ‘Empowerment the Politics of Alternative Development” Black well Publishers, Oxford UK, 1992.
7. Richards B, ‘Future Transport in Cities , Spon Press, London, 2002.
8. Read S, Rosemann J and Ildijk J V, ‘Future City’, Spon Press New York, 2005.
9. Mathias Finger and Sultana (Eds), ‘e-Governance a Global Journey’ Global Publications. London, 2012
10. Mohamed Abdul Razak, ‘Spatial Planning and Urban Governance issues of Jawaharlal Nehru Urban Renewal Mission’ in ITPI India, Tamil Nadu Regional Chapter Seminar Proceedings, 2006.
11. Mohamed Abdul Razak, ‘e-Governance Vs e-Readiness in Urban Municipal Governments in Tamil Nadu, India’. In Piaggeri, Americas, Sand & Castelnovo (Eds.) “Global Strategy and Practice of e-Governance, Examples around the World”, Global Publications, London, 2011
12. Sako Mustered and Zoltan Kovacs, ‘Place making and Policies for Competitive Cities’ Wiley Blackwell, Us, 2013.

**OBJECTIVES:**

To make students aware and exposed to changing scenario in the spatial order of cities and regions as well as the emergence of virtual societies in the world. Also the students will be in a position to understand the use and power of emerging new technologies and social networks among communities across the city, country and globe demand for paradigm shift in the spatial planning outlook and governance edge.

**UNIT I PLANNING VS TECHNOLOGY****10**

Tradition to modernity – Spatial planning and technology interface - Socio-economic planning and technology interface – Planning cities and local technologies - Technological innovations and responsive city planning - Planning responsive technology Vs technology responsive planning.

**UNIT II CITIES-TECHNOLOGY-INFRASTRUCTURE****12**

Transportation and technology, water, sanitation and technology, energy efficient technology for home, street, neighborhoods and city - Telecommunication, health and education – Security and safety for buildings and people in cities.

**UNIT III TECHNO CITIES****8**

Digital cities, virtual cities, technology parks - Smart planning and infill development – Planning, design and communication system - Socio-economic and environmental Impact of techno cities.

**UNIT IV GOVERNANCE****8**

Role of law and technology, administration and organization, industry and corporate, communities and people in building smart cities and smart communities.

**UNIT V CASE STUDIES****7**

Best practices in India and around the world.

**TOTAL:45 PERIODS****LEARNING OUTCOME:**

Students are able to cope up with the application technology and its impact on the infrastructure Planning and development at the house, neighborhood and city levels.

**REFERENCES:**

1. Brkovic, M. B., 'Planning in the Information Age: Opportunities and Challenges of e-Planning, CORP, 2004
2. City Government of Naga, 'The Naga City Citizen Chartes- A Guide Book of City Government Services. 2004
3. Elizabeth, S. Frans, V. 'IDENSITY: Planning Paradigms for the Information Communication Age', Isocarp Congress, 2001.
4. Intelligent Community forum, 'Innovation and Employment in the Intelligent Community", Intelligent Community forum, 2012
5. Komakech, D., 'Achieving More Intelligent Cities", Municipal Engineer, 2005.
6. Nohrstedt, 'Digital Planning : Integrating New Information and Communication Technologies in Urban Planning", [www.oruse.com](http://www.oruse.com), 2002.
7. Peng, L., Tao, Z., 'Establish the Intelligent City System and Realize its Level Analysis", Telematics and Informatics, 2010.
8. Wendy Sarkissian, 'Creative Community Planning' Earthsacn Ltd, London, 2010.

Attested


  
**SABINA**  
 DIRECTOR



**OBJECTIVE:**

This course applies the latest economic thinking and research to the task of analyzing real estate markets and forecasting supply or demand.

**UNIT I INTRODUCTION 9**

Introduction to real estate - Definition, principles of real estate - Value concepts - Methods of valuation - Introduction to real property ownership - Leasing property and succession - Methods of sale/purchase and title search

**UNIT II INVESTMENT AND LAWS 9**

Real estate investment analysis and portfolio management - Foreign direct investment (FDI) - Role of NRIs and PIOs in the investment market - Marketing and brokerage - Introduction to various laws related to real estate.

**UNIT III REAL ESTATE PROJECT FORMULATION 9**

Real estate project formulation - Real estate development process - Asset management, property insurance, taxation and fiscal incentives - Government policies and industry organization - Public-private partnerships and joint ventures, rating, and risk assessment.

**UNIT IV HOUSING MARKETS 10**

Concepts and definitions, housing market, area, the purpose - Nature of housing market studies-factors affecting housing prices, housing market behavior - Estimation of housing need, housing demand and identification of housing stress - Factors affecting local housing market - Housing demand and supply market process - Housing search residential mobility and filtering causes and consequences - Policy influence on housing market - The formal and informal housing markets and their impact on urban poor, public - Co-operative and private sector housing market, process and supply institutional frame work.

**UNIT V CASE STUDIES 8**

Case studies of real estate development in public, private, partnership sectors - Real Estate as facilitator of development - Development of real estate as a tool for controlling land and property prices - Transaction and renting of real estate - Lease deeds/ sale deeds, sale documents, registration - Mortgage and pledging.

**TOTAL : 45 PERIODS****LEARNING OUTCOME:**

The outcome of this course is to provide students with a comprehensive understanding of major functional areas of real estate, including legal aspects, finance, economics, real estate practice and appraisal.

**REFERENCES:**

1. David J. Lynn, 'Emerging Market Real Estate Investment: Investing in China, India, and Brazil'; John Wiley & Sons Inc, New Jersey, U.S.A. 2010
2. Fillmore W Galaty, 'Modern Real Estate Practice' Dearborn Trade Publishing, New York, U.S.A. 2002.
3. Gerald R Cortesi, 'Mastering Real Estate Principles'; Dearborn Trade Publishing, New York, U.S.A. 2001.
4. John Ratcliffe, 'Urban Planning and Real Estate Development' Routledge, Taylor & Francis Group, London, 2009.
5. Narayan Laxman Rao, 'Real Estate Deals'; Asia Law House, India. 2010
6. Rajkumar S Adukia, 'Real Estate: Law Practice & Procedures' Snow White Publications Pvt. Ltd, Mumbai, India. 2009

**OBJECTIVE:**

To develop a research culture among the students and study, use and understand appropriate methods in formulating problems and conduct surveys, analyze data and prepare a research report.

**UNIT I RESEARCH AND PLANNING 8**

Research- definitions, types, purposes and application - Research as a way of thinking - Research processes and planning processes - Commonalities and differences between research processes and planning processes - Research design-definition, types, features, and Ideal Research design - Planning projects Vs research projects.

**UNIT II SOURCES OF DATA 8**

Data and information - Access to Information-nature, types and sources. - Census and sample surveys and case studies - Secondary data sources and its availability in terms of form, time and reliability - Organizations deals with secondary data generation and dissemination - Primary data-types, sources and generation -Secondary data and Literature studies - Literature survey and formulation of theoretical framework – Hypothesis-definition, formulation and relevance to research studies

**UNIT III METHODS OF DATA COLLECTION 10**

Observation–participant and non-participant techniques of observation, Preparation for field observation of people, buildings, places and activities. Merits and Demerits of observation - Interview-structured and unstructured interviews, telephone interviews, rapport building, merit and demerits of Interview - Questionnaire-mailed questionnaire - Formation of questions, sequencing and constructing questions, merits and demerits – Schedule - Difference between questionnaire and schedule - Administration of field survey- pre requisites and preparations.

**UNIT IV DATA ANALYSIS 10**

Criteria for analysis–descriptive and comparative - Processing raw data-coding, tabulating and illustrative - Secondary data analysis and primary data analysis and making interface between the two - Univariate, bi-variate and multi-variate analysis of data - Draw conclusions and interpretation of the analysis - Link interpretation to policy, design and planning.

**UNIT V REPORT WRITING 9**

Contents, and preliminaries - Writing reports when to start and finish - Language structure, and report format - Presentation of graphs, tables, maps and illustrations - Citation, referencing and Indexing - Format for preparing bibliography - Production of report.

**TOTAL : 45 PERIODS****LEARNING OUTCOME:**

Students are able to (a) learn various methods and techniques on how to study and understand the problems of the urban and rural society in relation with environment (b) development skills to manage field work, data analysis and report working.

**REFERENCES**

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5. Good and Hatt, 'Methods in Social Research', Macgrow Hill, New York, 1952.
6. Khan, J.A, 'Research Methodology' APH Publishing, 2011

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9. Uwe Flick, 'Introducing Research Methodology: A Beginner's Guide to Doing a Research Project' SAGE, 2011
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**TP7007**

**SPATIAL PLANNING FOR TOURISM MANAGEMENT**

**L T P C**  
**3 0 0 3**

**OBJECTIVE:**

To make students aware of the methods and aspects concern towards preparation of tourism plan and managing environmentally sensitive areas.

**UNIT I**

**TOURISM**

**5**

Definition, concepts, sectors, and perspectives - Purpose of tourism planning - Planning view, scale and development.

**UNIT II**

**TOURISM AND ENVIRONMENT**

**8**

Environmental issues and tourism - Carrying capacity and sustainable development – Ecotourism - Landscape, environment and tourism - Natural and man-made heritage and tourism development.

**UNIT III**

**SOCIAL AND ECONOMIC IMPERATIVES OF TOURISM DEVELOPMENT**

**12**

Sociology of tourism – Leisure, recreation and society- Tourist and local community. - Community, culture, religion and visiting habits - Gender issues and tourism - Tourism and social problems - Economics of tourism – Tourism as an industry - Regional and urban economic development - Informal sector and tourism - Business and marketing aspects of tourism.

**UNIT IV**

**TOURISM AND SPATIAL PLANNING TOWARDS URBAN AND RURAL DEVELOPMENT**

**12**

Concepts related to tourism planning-urban and regional planning concepts - Destination planning-concepts, places, issues, and guides - Tourist site planning- processes and sustainability - Nature, scope and issues related to preparation of tourism plan - Sustainable tourism planning - Tourism planning methods and analysis - Transport and other Infrastructure planning and tourism development - Urban and rural based tourism.

**UNIT V**

**TOURISM COMMUNICATION AND MANAGEMENT SYSTEMS**

**8**

Tourism as a system-market, function and external factors - Government and tourism policy and priorities - Role of local community and tourism promotion - Private sector and tourism development - Information technology and tourism management - Tourism as local, regional, national and global perspectives.

**TOTAL : 45 PERIODS**

**LEARNING OUTCOME:**

Students obtain knowledge and skill to project environment of tourist places and make peoples leisure time safe and enjoyable.

**REFERENCES:**

1. Andrew Holden, 'Tourism, Poverty and Development', Routledge, London 2013.
2. Anthony S. Travis, 'Planning for Tourism, Leisure and Sustainability: International Case Studies' CABI, 2011
3. Bhatia.A.K. 'Tourism Development-Principles and Practice', Sterling Publishers, New Delhi, 1982.

4. David J. Telfer, Richard Sharpley, 'Tourism and development in the developing world' Routledge, 2008
5. David L. Edgell, 'Tourism Policy and Planning, Routledge, London, 2013.
6. Edgell D, 'Tourism policy and planning: yesterday, today and tomorrow' Routledge, 2008
7. Glare A. Gunn, 'Tourism Planning-Basics, Concepts, Cases', Taylor & Francis, London, 1994.
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11. Noel Scott and Eric Laws, 'Safety and Security in Tourism', Routledge, London, 2013.
12. Peter Mason, 'Tourism Impacts, Planning and Management' Routledge, 2012
13. Tej Vir Singh, 'Climatology of Recreation: An Appraisal of Climate Studies in Tourism, Wildlife and Park Conservation', Metropolitan Book Co. New Delhi. 1985.
14. Willam Allen, 'Heritage Tourism and Society', Manseel Publishing Ltd. England, 1990.

**TP7008**

**SUSTAINABLE DEVELOPMENT**

**L T P C**  
**3 0 0 3**

**OBJECTIVE:**

Students know the concept and basic principles of sustainable development. They understand physical form and the morphology of cities and comprehend resource conservation and infrastructure management.

**UNIT I PRINCIPLES OF SUSTAINABLE CITIES**

**9**

Balancing present and future needs – Integration of economic, social, spatial development with environmental approaches – Social and spatial equity and poverty alleviation – Political empowerment of disempowerment

**UNIT II SUSTAINABLE CITY FORMS**

**9**

Various sustainable urban forms-Its types and pattern - Desirable built forms – Density and thresholds – Physical forms and characterizations – Compact cities – High dense low rise development – Mixed land use – Multi-storied mixed use buildings.

**UNIT III RESOURCES CONSERVATION**

**9**

Land and housing resources - Sustainable policies and programs – Conservation of water resources - Optimal utilization of energy through mixed land uses and clustered developments – Protection of coastal resources and reduction of ecological footprint.

**UNIT IV MANAGEMENT OF BASIC AMENITIES & SOCIAL FACILITIES**

**9**

Role of government and people in generating resources.

**9**

**UNIT V SUSTAINABLE TRANSPORTATION**

Sustainable transport system and networks – Eco friendly public transport - Traffic Impact Assessment – Transport demand management

**TOTAL: 45 PERIODS**

## LEARNING OUTCOME:

Sustainable principles are considered the panacea for all problems of urban development. Therefore, students need exposure to sustainable cities will give the required courage and confidence in addressing urban and rural development issues

## REFERENCES:

1. Chetan Vaidya and Satmoohini Ray, 'Sustainable City Form in India', National Institute of Urban Affairs, New Delhi, 2001.
2. Portney, K.E., 'Taking Sustainable Cities Seriously', MIT Press, London, 2003.
3. Roger Zatter and Georgia Butina Watson, 'Designing Sustainable Cities in Developing World', Ashgate Publishing Ltd, London, 2006.
4. Warrenkarfenzia, 'Copenhagen and the Imperatives for Sustainable Cities in India', Featured Publication, Bombay, 2009.
5. Abdul Hhani Olabi and Sumsun Naher, ' Sustainable Environment Beyond 2020', Glasrevin Publiding, Dublin, 2009.

TP7009

URBAN FINANCE

L T P C  
3 0 0 3

## OBJECTIVE:

To give an understanding to the students of the institutional mechanism in place for the governance at the local level and their functional and financial powers, capabilities and opportunities.

### UNIT I AN OVER-VIEW

9

Organization of local self governments - The 74<sup>th</sup> CAA-context and implications - Election of local body governments-need and process - Urbanization process and its Impacts on civic services - Urban development through Five Year Plans - Status of civic services in urban Sector - Investment requirements - Limitation of funds in government and private Sectors.

### UNIT II MUNICIPAL FINANCE

9

Nature and composition of income and expenditure - Limitations and need for revenue enhancements - Expenditure control methods and mechanisms - Budgetary allocation from central and state governments for urban development - Assistance from foreign donors and multilateral agencies - Non traditional sources of funding – Market access – Pool finance-pre-requisite - Conditions for accessing non-traditional funds.

### UNIT III ADDITIONAL FUNDING SOURCES

9

Types of partnership approaches - Privatization of civic services - Public private partnership Mechanisms - Types of contracts and ownerships - Emerging cost- effective technology interventions - User charged projects – Pricing of services.

### UNIT IV RESOURCES BASED ON ACHIEVEMENT OF URBAN REFORMS

6

Role of state government and urban local bodies - City's challenge fund - Urban Reforms-implications on resources - Incentive fund - State level pooled - Finance development fund.

### UNIT V INSTITUTIONAL CAPACITY ENHANCEMENT

12

Better finance management and management process – Accounting and budgeting, Asset management and receivables management - Cost centre approach – Financial operating plan - City corporate plan - Development of urban indicators – Computerization and management information system.

TOTAL:45 PERIODS

## LEARNING OUTCOME:

The students will gain necessary skills to prepare financial operating plans for the municipal bodies and suggest appropriate approaches and financial resources for implementation of various city level projects.

## REFERENCES:

1. Narayanan, Access to Market Fund, EDATEN
2. Course Materials for Training Finance Officers of ULBs by TNUDP II at Anna Institute of Management, Chennai – Administrative Staff College, Hyderabad – HSMI, HUDCO, New Delhi.
3. Broadbent, 'Planning and Profit in the Urban Economy', Meuthen & Co. Ltd, U.K. 1997.
4. Edward J. Blakely, 'Planning Local Economic Development', SAGE Publications, New Delhi, 1994
5. Ian Blore, Nick Devas, R. P. Slater 'Municipalities And Finance: A Sourcebook For Capacity Building' Earthscan, 2004
6. L Joseph Oberman, 'Planning and Managing the Economy of the City', Praeger publishers. U.K., 1972

**TP7010 GIS MODELLING IN URBAN AND REGIONAL PLANNING LAB L T P C**  
**1 0 4 3**

## OBJECTIVE:

To train the candidate in building GIS models for urban and regional planning applications with hands on experience of spatial data, attribute data input and experiment with GIS analysis.

**Note:** This is offered as a practical in the computer lab and does not involve setting of question paper as in theory paper. Therefore, it is worked out as 5 modules as indicated below

**UNIT I INTRODUCTION 15**  
Classification of spatial and non-spatial data application of spatial data in urban and regional plans – objectives and functions of GIS models in urban and regional planning.

**UNIT II SPATIAL DATA INPUT 15**  
Defining the objectives of GIS planning problems – Identification of required spatial data layers – coding schemes – digitization of spatial data – editing spatial data usable for the given planning problem.

**UNIT III ATTRIBUTE DATA INPUT 15**  
Role of attribute data in defining geographic features – adding attribute data file – topology generation – Joining attribute data to its geographic features.

**UNIT IV SPATIAL ANALYSIS USING GIS 15**  
Performing overlay functions – manipulating attribute data – GIS modeling – map and report generation – case problems on regional analysis, impact assessment study, project formulation and land suitability analysis.

**UNIT V URBAN LAND USE MODELING 15**  
Need for model – Land suitability analysis – Urban land use modeling – Change demand modeling – Transition potential modeling and land allocation modeling

**TOTAL : 75 PERIODS**

## LEARNING OUTCOME:

The outcome of this course is to provide students with a comprehensive understanding of the concepts, techniques, methods used by an urban planner to treat spatially cities by preparing urban land use models using GIS.

## REFERENCES:

1. Brail K.R. 'Integrating GIS into Urban and Regional Planning. Alternative approaches for developing countries. Regional development Dialogue, Vol.11, No.3, UNCRD, Japan, 1990.
2. Cartwright T.J. 'Information Systems for Urban and Management in Developing Countries. The Concept and Reality, Computers, Environment and Urban Systems Vol.15, 1991.
3. David J. Maguire, Michael Batty, Michael F. Goodchild, 'GIS, spatial analysis, and modeling' ESRI Press, 2005
4. ERSI, 'Understanding GIS. The ARCI INFO. Methods, ERSI, USA. 1992
5. Fotheringham, Peter Rogerson, 'Spatial Analysis And GIS' CRC Press, 2004
6. Ian N. Gregory, Paul S. Ell 'Historical GIS: Technologies, Methodologies, and Scholarship' Cambridge University Press, 2007
7. Klosterman R.E., 'Micro Computer Packages for Planning Analysis', American Planning Association Journal, Autrenn, 1990.
8. Tomlin C.D., 'Geographic Information Systems and Cartographic Modeling, Prentice Hall, Englewood Cliffs, U.S.A. 1990.

TP7011

### WEB BASED APPLICATIONS TO URBAN AND REGIONAL PLANNING LAB

L T P C  
0 0 6 3

## OBJECTIVE:

To train the candidate in the use of web for urban and regional planning applications and to train them to build case based web development.

This course is designed based on advanced applications, and the candidates are expected to be through in INTERNET, Windows / NT OS, HTML etc.)

### UNIT I                      ROLE OF WEB BASED TECHNOLOGY IN PLANNING                      30

Information need and the role of web in planning – Public participation – Information transparency – Current trends.

### UNIT II                      INFORMATION DISSEMINATION THROUGH INTRA AND INTERNET                      30

INFOCITY – Knowledge sharing – e- Governance – Information kiosks – Digital planning

### UNIT III                      PLANNING INFORMATION ACROSS INTERNET                      30

Web sites and information sources in urban and regional planning.

**TOTAL: 90 PERIODS**

**Note:** This subject is offered as a practical using INTERNET resource including the assessments, and does not involve setting of question paper as in theory paper. Therefore, it is worked out 3 modules as indicated above

## LEARNING OUTCOME:

As an outcome of the above course the students will have the ability to independently develop web based solutions for the application of urban and regional planning.

## REFERENCES:

1. Abbate J., 'Inventing the Internet', MIT Press: Cambridge, MA.. 1999
2. Arnum E. & Conti S., 'INET'98: The Internet Summit,, Geneva, Switzerland, 1998
3. Carriere J. & Kazman R., 'Sixth International World Wide Web Conference. 1997.
4. Dodge, M & Kitchin, R., 'Atlas of Cyberspace', Addison-Wesley, London. 2001
5. Downey G, 'Technology and Culture', Vol. 42, No. 2, pages 209-235. 2001
6. Graham S. & Marvin S., 'Telecommunications and the City: Electronic Spaces, Urban Places', Rutledge:London 1996
7. Kim T.J., 'Expert systems : Applications to Urban Planning, Springer- Verleg, New York, 1999
8. [www.esri.com](http://www.esri.com) and number of such sites as and when developed would be used as the resource for the course.
9. [www.infocity.com](http://www.infocity.com)