

DEPARTMENT OF PLANNING

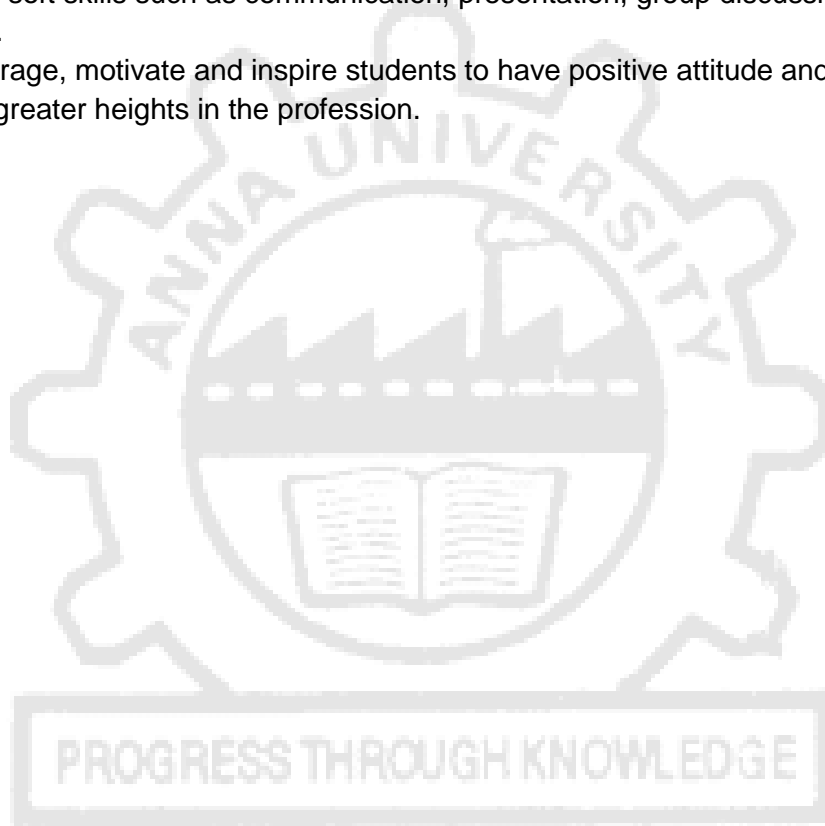
ANNA UNIVERSITY, CHENNAI

Vision:

We envision our Students get imparted planning education, which contributes ability to unlock their full potential to enable them to reach the pinnacle of the Profession.

Mission:

1. Change curriculum and syllabus to meet needs of service organisations and consultants in the planning profession.
2. Establish close collaboration with Departments and practising professionals in Planning /Alumni to get placements to Students, undertaking Thesis/Projects, offering guest lectures and organising Seminars/Workshops/Training Programs/Internships.
3. Impart soft skills such as communication, presentation, group discussion and decision taking.
4. Encourage, motivate and inspire students to have positive attitude and to aim high to scale greater heights in the profession.



Attested

ANNA UNIVERSITY: CHENNAI- 600 025
UNIVERSITY DEPARTMENTS
REGULATION- 2019
CHOICE BASED CREDIT SYSTEM
MASTER OF PLANNING (M.PLAN) - FULL TIME

1. PROGRAMME EDUCATIONAL OBJECTIVES (PEOs):

- i) Become an urban and regional planner with knowledge and understanding of the socio-economic, cultural, physical, environmental, political, legal and management aspects of urban and rural settlements.
- ii) Become part of urban and regional planning authorities, local governments, housing development agencies or other related public agencies.
- iii) Become a professional consultant who can independently/jointly offer support in planning and executing the various activities of the planning process.
- iv) Become a researcher to critically investigate planning concepts, theories, and techniques to advocate newer theories, innovative concepts and technology driven analytical tools for better management of human settlements.
- v) Become an activist to influence policies and strategies of the government at various levels for a sustainable development and enhancement in quality of life of the citizens.

2. PROGRAMME OUTCOMES (POs):

After going through two years of study, M.Plan Graduates will exhibit ability to:

No.	Programme Outcome
PO 1	An ability to independently carry out research /investigation and development work to solve practical problems in the field of urban and regional planning and development.
PO 2	An ability to write and present planning documents, technical reports including plan documents of urban and rural settlements.
PO 3	An ability to demonstrate a degree of mastery over the understanding of the functioning of human settlements at various levels and to articulate contextual planning interventions required for sustainable development.
PO 4	A willingness to engage in undertaking socially useful activities related to planning and development of neighbourhood, town/city and region with an exposure to best practices in the field of planning and latest technologies as planning tools.
PO 5	A level of understanding of socio-economic and environmental consequences of planning strategies and maturity to collectively work in groups and evolve consensual decisions towards achieving principle goals of development.
PO 6	A level of ability and knowledge to participate and strengthen the institutional mechanism for development of the planning education and practice.

Attested

PEO / PO Mapping:

Programme Educational Objectives	Programme Outcomes					
	PO1	PO2	PO3	PO4	PO5	PO6
I						
II						
III						
IV						
V						

Mapping of Course Outcome and Programme Outcome

			PO1	PO2	PO3	PO4	PO5	PO6
Year-1	SEM 1	Urban Economics and Sociology						
		Planning Theory and Practice						
		Planning Techniques						
		Urban and Rural Housing						
		GIS Modeling in Urban & Regional Planning						
		Planning Studio I						
	SEM 2	City and Metropolitan Planning						
		Regional Planning and Development						
		Traffic and Transportation Planning						
		Planning Legislation & Professional Practice						
		Planning Policies and Strategies						
		Planning Studio II						
Year-2	SEM 3	Project Formulation and Evaluation						
		Planning Studio III						
		Thesis – Phase I						
		Internship Training						
	SEM 4	Thesis – Phase II						

Attested

ANNA UNIVERSITY, CHENNAI
UNIVERSITY DEPARTMENTS
MASTER OF PLANNING (M.PLAN) – FULL TIME
REGULATIONS 2019
CHOICE BASED CREDIT SYSTEM
CURRICULA AND SYLLABI FOR I TO X SEMESTER

SEMESTER I

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P/S		
THEORY								
1	TP5101	Urban Economics and Sociology	PCC	2	1	0	3	3
2	TP5102	Planning Theory and Practice	PCC	3	0	0	3	3
3	TP5103	Planning Techniques	PCC	2	1	0	3	3
4	TP5104	Urban and Rural Housing	PCC	2	1	0	3	3
5	TP5111	GIS Modeling in Urban and Regional Planning	EEC	1	0	4	5	3
6	TP5112	Planning Studio I	EEC	0	0	10	10	5
7		Audit Course I*	AC	2	0	0	2	0
TOTAL				12	3	14	29	20

*Audit Course is Optional

SEMESTER II

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS	Pre-requisites
				L	T	P/S			
THEORY									
1	TP5201	City and Metropolitan Planning	PCC	2	1	0	3	3	Pass in Planning Studio I
2	TP5202	Regional Planning and Development	PCC	2	1	0	3	3	
3	TP5203	Traffic and Transportation Planning	PCC	2	1	0	3	3	
4	TP5204	Planning Legislation and Professional Practice	PCC	3	0	0	3	3	
5	TP5205	Planning Policies and Strategies	PCC	3	0	0	3	3	
6	TP5211	Planning Studio II	EEC	0	0	10	10	5	
7		Audit Course II*	AC	2	0	0	2	0	
TOTAL				14	3	10	27	20	

*Audit Course is Optional

Attested

SEMESTER III

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS	Pre-requisites
				L	T	P/S			
THEORY									
1	TP5301	Project Formulation and Evaluation	PCC	2	1	0	3	3	Pass in Planning Studio II
2		Program Elective I	PEC	3	0	0	3	3	
3		Program Elective II	PEC	3	0	0	3	3	
4	TP5311	Planning Studio III	EEC	0	0	10	10	5	
5	TP5312	Thesis – Phase I	EEC	0	0	10	10	5	
6	TP5313	Internship Training**	EEC	x	x	x	x	2	
TOTAL				8	1	20	29	21	

****Internship Training of 4 weeks full time during the vacation in an Organization, which is engaged in Planning activities and approved by the Department**

SEMESTER IV

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS	Pre-requisites
				L	T	P/S			
1	TP5411	Thesis – Phase II	EEC	0	0	22	22	11	Pass in Thesis Phase I & Planning Studio III
TOTAL				0	0	22	22	11	

TOTAL NO. OF CREDITS: 72

PROGRESS THROUGH KNOWLEDGE

Attested

PROGRAMME CORE COURSES (PCC)

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS	SEMESTER
			L	T	P/S			
1	TP5101	Urban Economics and Sociology	2	1	0	3	3	1
2	TP5102	Planning Theory and Practice	3	0	0	3	3	1
3	TP5103	Planning Techniques	2	1	0	3	3	1
4	TP5104	Urban and Rural Housing	2	1	0	3	3	1
5	TP5201	City and Metropolitan Planning	2	1	0	3	3	2
6	TP5202	Regional Planning and Development	2	1	0	3	3	2
7	TP5203	Traffic and Transportation Planning	2	1	0	3	3	2
8	TP5204	Planning Legislation & Professional Practice	3	0	0	3	3	2
9	TP5205	Planning Policies and Strategies	3	0	0	3	3	2
10	TP5301	Project Formulation and Evaluation	2	1	0	3	3	3
TOTAL CREDITS						30		

PROFESSIONAL ELECTIVES (PEC)

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS	SEMESTER
			L	T	P/S			
1	TP5001	Development Management Regulations	3	0	0	3	3	3
2	TP5002	E-Governance and Community Planning	3	0	0	3	3	3
3	TP5003	Planning for Resilience Human Settlements	3	0	0	3	3	3
4	TP5004	Real Estate Development	3	0	0	3	3	3
5	TP5005	Rural Development	3	0	0	3	3	3
6	TP5006	Tourism Planning and Development	3	0	0	3	3	3
7	TP5007	Urban Design	3	0	0	3	3	3
8	TP5008	Urban Finance	3	0	0	3	3	3
9	TP5009	Urban Sustainability	3	0	0	3	3	3
TOTAL CREDITS						6*		

*Credits for 2 Professional Electives to be chosen

Attested

EMPLOYABILITY ENHANCEMENT COURSES (EEC)

SL. NO.	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS	SEMESTER
			L	T	P/S			
1	TP5111	GIS Modeling in Urban and Regional Planning	1	0	4	5	3	1
2	TP5112	Planning Studio I	0	0	10	10	5	1
3	TP5211	Planning Studio II	0	0	10	10	5	2
4	TP5311	Planning Studio III	0	0	10	10	5	3
5	TP5312	Thesis – Phase I	0	0	10	10	5	3
6	TP5313	Internship Training	x	x	x	x	2	3
7	TP5411	Thesis – Phase II	0	0	22	22	11	4
TOTAL CREDITS							36	

AUDIT COURSES (AC)

Registration for any of these courses is optional to students

SL. NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			CREDITS	SEMESTER
			Lecture	Tutorial	Practical		
1.	AX5091	English for Research Paper Writing	2	0	0	0	1/2
2.	AX5092	Disaster Management	2	0	0	0	
3.	AX5093	Sanskrit for Technical Knowledge	2	0	0	0	
4.	AX5094	Value Education	2	0	0	0	
5.	AX5095	Constitution of India	2	0	0	0	
6.	AX5096	Pedagogy Studies	2	0	0	0	
7.	AX5097	Stress Management by Yoga	2	0	0	0	
8.	AX5098	Personality Development Through Life Enlightenment Skills	2	0	0	0	
9.	AX5099	Unnat Bharat Abhiyan	2	0	0	0	
Total Credits						0	

SUMMARY

Sl. No.	Subject Area	Credits per Semester				Credits Total
		I	II	III	IV	
1	PCC	12	15	3	0	30
2	PEC	0	0	6	0	6
3	EEC	8	5	12	11	36
	Total	20	20	21	11	72
	AC*	0	0	--	--	0

OBJECTIVES:

- Understand the way macro-economic processes such as de-industrialization, segregation, and sub-urbanization have interacted to create areas of concentrated urban poverty.
- Examine the character and consequences of social life in the inner-city neighborhood settings.
- Explore the role of built environment in shaping social interactions, and understand how space is related to mechanisms of both formal and informal social control.
- Understand how the city works and how the decisions about urban space are made and excluded.

UNIT I INTRODUCTION TO URBAN ECONOMICS AND SOCIOLOGY 9

Definition of Economic / Public / Private good, Equilibrium price, Agglomeration economics, Diseconomies of Scale, Opportunity cost, Market and Non-market mechanism, Society and community, Urbanization, Urbanism, Sub-urbanism and Gentrification, Rural - Urban continuum, Conurbation, slums, Neighborhoods, Ecology, Typology of Urban Centers - Relevance of urban economics and sociology to Urban and Regional Planning.

UNIT II URBAN PUBLIC ECONOMICS 9

Land use and Zoning regulation, Economic principles of Land use zoning – Public facility and Location choice – Pollution, Crime and Externalities – Property tax – Transportation pricing, Rationale for pricing, Alternate methods of road pricing - Congestion and Pricing – Transport Infrastructure Investment – Division of labor and immigration.

UNIT III HOUSING AND REAL ESTATE MARKETS 9

Theories of Land Economics, and Housing Laws - Real Estate Market, Real Estate Investment – Demand and Supply – Real Estate Valuation, Factors affecting land and Building Value, Impact of land and Housing Laws and Regulations on Valuation – Impact of globalization on Urban Land Economics.

UNIT IV THEORIES OF URBAN SOCIOLOGY AND URBAN SOCIAL STRUCTURE 9

Theories of Urbanism and Sub-Urbanism as a way of life – Ecological approach to the study of the human community – Trend of urbanization and its impact on cities – Poverty, and Social dislocations and isolation, Impact of gentrification, Social changes and employment and joblessness in inner city dislocations - Inclusive cities.

UNIT V PUBLIC POLICIES AND URBAN PLANNING 9

Public policies and Social & Spatial organization of Cities and its effect on urban living and social Interaction – Persistence of slums and Indian experiment to fight slum poverty and environmental degradation – Places as commodities, the City as a growth machine – Cities: Historical, Psychological, Cultural, and Demographical Perspectives – Technology effects on social conduct and public spaces.

TOTAL PERIODS: 45**LEARNING OUTCOME:**

Enable the students to think and analyze the spatial planning attributes from the social and economic perspective and facilitate students to get sensitized about society and environment.

REFERENCES:

1. Arthur O' Sullivan, 'Urban Economics', McGraw – Hill/Irwin, New York, 8th edition, 2012.
2. Briggs, X, Popkin, S. & Goering. J, 'Moving To Opportunity: The Story of an American Experiment to Fight Ghetto Poverty'. Oxford University Press, 2010.
3. Park, Robert E./Burgess, Ernest W, 'The City' published by University of Chicago, 1970.
4. Gans, Herbert, 'Urbanism and Sub-urbanism as Ways of Life: A Re-evaluation of Definitions.' In People, Plans, and Policies, 1994.

Attested

5. Jackson, K, Crabgrass Frontier, 'The Suburbanization of the United States.' Oxford University Press, 1985.
6. McCann, Philip, 'Urban and Regional Economics', Oxford University Press, 2001
7. Paul N. Balchin, Gregory H. Bull, Jeffrey L. Kieve, 'Urban Land Economics and Public Policy', Macmillan International Higher Education, 1995.
8. Quigley, John M, 'Urban Economics.' The New Palgrave Dictionary of Economics (2nd edition), 2008.
9. Strange, William C, 'Urban Agglomeration', The New Palgrave Dictionary of Economics (2nd edition), 2008.

TP5102

PLANNING THEORY AND PRACTICE

L T P C
3 0 0 3

OBJECTIVES:

- Become familiar with the history of planning emphasizing lessons learnt.
- Understand the constraints for the plan preparation and implementation.
- Appreciate the relevance of various theories to the current planning practice.
- Comprehend fundamentals of planning process.
- Understand the role of planning in government and private sectors.

UNIT I INTRODUCTION

8

Definition of basic terms – Concept of urban areas and regions – Trend of Urbanization at National and International level – Historical evolution of planning and its influence to modern planning– Principles of sustainable Urban and Regional Planning – Planning Standards -Institutional mechanism, Management and co-ordination for Urban and Regional Planning –Constraints for plan preparation and implementation - Legal, Financial, Human resource and Institutional.

UNIT II PLANNING THEORIES AND RATIONAL PLANNING

9

The relevance and review of Planning Theories - Garden City, Geddisian Triad, Conurbation and Constellation, Modernism Concept by Le-Corbusier, Radburn, Green belt, Neighborhood Concept, Theories of Ekistics, Land Use and Land Value, Theories by William Alan so, Concentric/ Sectorial/Mono/Poly Centric/Axial Theories and others –Globalization and its impact on Planning – Application of Theories to planning practice– Rational planning - Challenges to Comprehensive Planning -Incrementalism and mixed Scanning.

UNIT III URBAN AND REGIONAL PLANNING PROCESS

12

Concept, Objectives and contents of Urban and Regional Plans – Regional Plan, Master Plan, New Town Development Plan, Smart City plan, Zonal Development Plan, Detailed development Plan and Local Area Plan - Planning Process in the formulation and implementation of Urban and Regional Plans – Application of systems approach, Choice theory and advocacy planning in the planning process- Current Planning Practice in India and the way forward – Planning in Western context and lessons therefrom for India.

UNIT IV PLAN EVALUATION AND IMPLEMENTATION

8

Need for evaluation - Inseparability of planning and evaluation - Planning theories and evaluation - Methods of evaluating development plans, Introduction to Project evaluation -Realization of policies and strategies and Implementation of Development Plans, Resources and constraints for plan implementation, Land, Finance and Legal.

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UNIT V INSTITUTIONAL ARRANGEMENT FOR PLAN IMPLEMENTATION AND ENFORCEMENT

8

Multiplicity of institutions and institutional coordination – Interface between local bodies and other institutions – Concept of Constitutional (73rd and 74th Amendments) Act 1992 – Development Management System, Problems and prospects –The Way Forward for effective implementation and enforcement – Case Studies.

TOTAL PERIODS: 45

LEARNING OUTCOME:

Get introduced to the history of spatial planning and the students develop the ability to understand various modes of planning and earn the skill to apply basic analytical and optimizing techniques needed.

REFERENCES:

1. Andreas Faludi, 'A Reader in Planning Theory', Pergamon Press Oxford, NewYork, 1973.
2. Jonathan Barnett, ' Redesigning Cities: Principles, Practice, and Implementation', Planners Press, Chicago, 2003.
3. Lee C, 'Models in Planning – AnIntroduction to the use of Quantitative Models in Planning', Pergamon Press, NewYork, 1973.
4. Rabindra NathDubey and BhimRao, 'Urbanization and Urban Planning in India-Vision and Reality', Shree Nataraj Prakashan, NewDelhi, 2010.
5. RamachandranR, 'Urbanization and Urban Systems in India', Oxford University Press, Oxford, 1991.
6. Randall Crane and Rachel Weber, 'The Oxford Handbook of Urban Planning', Oxford University Press, NewYork, 2012.
7. Sundaram K.V, 'Urban and Regional Planning in India',Vikas Publishing House, NewDelhi, 1977.
8. Viviana Kaminski, 'Urban Studies and Planning. World Technologies', NewDelhi, 2012.

TP5103

PLANNING TECHNIQUES

L	T	P	C
2	1	0	3

OBJECTIVES:

- Develop comprehension in application of statistical and quantitative techniques and understanding the conceptual application of geo-spatial technology in urban and regional planning.
- Familiarize with case studies in the application of planning techniques.
- Expose students in modeling urban and regional development.

UNIT I BASIC STATISTICAL TECHNIQUES

8

Methods of Data Collection - Classification and Tabulation of Data – Measures of Central Tendencies and Dispersion – Questionnaire Design – Types of Sampling – Sampling Size – Sampling and Non-sampling Error.

UNIT II STATISTICAL INFERENCE

8

Elementary Probability – Concepts and Definitions – Probability Distributions – Sampling Distribution – Theory of Estimation and Testing of Hypothesis – Tests for Means and Proportion – Non Parametric Tests – Correlation and Regression Analysis.

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UNIT III DEMOGRAPHIC ANALYSIS**9**

Distribution and Structure of Population – Demographic characteristics of Population and their Measures – Methods of Population Projection – Migration Analysis – Description and Construction of Life Tables.

UNIT IV ADVANCED PLANNING TECHNIQUES**10**

Delphi, Trade Off Game, Simulation Model, Gravity Analysis, Land Use Transport Model, Threshold Analysis, Gravity and Retail Location Model – Trip Generation and Distribution Models – Optimization Techniques in Planning – Planning, Budgeting and Balance Sheet.

UNIT V MAPPING AND DEVELOPMENT OF DECISION SUPPORT SYSTEM**10**

Mapping of Land Use – Design of Urban and Regional Management Information System – Deduction of Urban Sprawl and Morphology – Development of Decision Support System for Land Use Planning, Transport Corridor Development, Provision of Social Facilities and Utilities.

TOTAL PERIODS: 45**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. They will earn the skill to apply advanced planning techniques and design/develop information system for planning.

REFERENCES:

1. Bivand, R. S., E. J. Pebesma, and V. Gomez-Rubio', Applied Spatial Data Analysis with R. Springer, New York, 2008.
2. Gupta S.C, 'Fundamentals of Statistics', Himalaya Publishing House, New Delhi, 2004.
3. Morris Hamburg, 'Statistical Analysis for Decision Making', Harcourt Brace Jovanovich, Inc., New York, 1977.
4. Kruekeberg, D. A., and Silvers, A.L, 'Urban Planning Analysis: Methods and Models'. Wiley, New York, 1974.
5. Paul H Garthwaite, I. T. Jolliffe, Byron Jones, 'Statistical inference' Oxford University Press, 2002.
6. Pollard A. H, 'Demographic Techniques', Pergamon Press, Sydney, 1981.
7. Richard A. Johnson, 'Probability and Statistics for Engineers', Macmillan Business Books, New Delhi, 2000.
8. Santhosh Gupta, 'Research Methodology and Statistical Techniques', Deep & Deep Publications Pvt. Ltd, New Delhi, 2003.
9. Thomas Alexander Aleinikoff, 'International Legal Norms and Migration: An Analysis' United Nations Publications, 2002.

TP5104**URBAN AND RURAL HOUSING**

L	T	P	C
2	1	0	3

OBJECTIVES:

- Expose students about origin growth and development of human settlements.
- Understand the character of rural and urban housing.
- Outline the issues concerning housing in the Indian context.
- Understand the housing policies and agencies responsible for housing development.

UNIT I EVOLUTION OF HUMAN SETTLEMENTS**9**

Early settlement pattern – Physical form and growth of settlements – Population growth, Urban and rural settlements – Impact of urbanization on housing.

UNIT II RURAL AND URBAN HOUSING 9

Rural housing in India - Typology of housing and housing character in Indian context – Early urban centers / cities, Mughal period, Before independence and After independence – Industrial townships - Satellite towns / New towns – Residential neighborhoods.

UNIT III HOUSING AND INFRASTRUCTURE 9

Formal and informal settlements – Homelessness - Housing standards for various income category – Housing development – Slum housing and redevelopment programmes – Sites and services schemes – Socio - economic and special aspects of housing – Community facilities.

UNIT IV HOUSING DESIGN AND CONCEPTS 9

Traditional housing, Row housing, Cluster housing - Affordable housing – Green house and ecofriendly housing – Gated community – Housing density – Layout preparation.

UNIT V HOUSING GOVERNANCE 9

National housing policy – Demand and supply – Housing development agencies and their role – Finance– Housing information system – Cost effective materials and technologies for housing.

LEARNING OUTCOME:

Students are introduced to the evolution of settlements housing and community living. Also to understand the types of housing during various time period. It also facilitates students to explore the past and relate with the technology and culture towards living environment of modern society.

TOTAL PERIODS: 45

REFERENCES:

1. Bridget Franklin, 'Housing Transformations Shaping the Space of Twenty-First Century Living, Routledge Publishers, UK, 2006.
2. ConstantinodA.Doxiadis, 'Ekistics', Hutchinson of London, 1968.
3. Graham Towers, 'Introduction to Urban Housing Design, Routledge, London, 2005.
4. Jain A.K, 'Urban Housing and Slums, Readworthy Publications, Delhi, 2009.
5. Mark Tewdwr-Jones, 'Spatial Planning and Governance, Palgrae Macmillan Publication, London, 2012.
6. Nair K. N. & G. Gopikuttan, 'Studies in Local-Level Development- Housing in Kerala: Impact of Investment, Technology and Institutions, Danish Books, Delhi, 2012.
7. Sabir Ali, 'Environment and Resettlement Colonies of Delhi, Har-Anand Publications. New Delhi, 1995.

PROGRESS THROUGH KNOWLEDGE

**TP5111 GIS MODELLING IN URBAN AND REGIONAL PLANNING L T P C
1 0 4 3**

OBJECTIVES:

- Train the students 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

UNIT I INTRODUCTION 15

Classification of spatial and non-spatial data, Projection and Coordinate systems, Preparation of map – Purpose of the map, Topic, Format, Scale, Audience, Production and Reproduction of map, Data base concepts – Primary key, Foreign Key, ER diagram, Passive and Active Remote

Sensing, Image Processing – Spectral Signature Curve, GPS, Aerial Photograph, Satellite Imagery, LIDAR and Drones in Physical Planning, Commercial and open source GIS packages

UNIT II SPATIAL DATA INPUT 15

Defining the objectives of GIS planning problems – Identification of required spatial data layers – Coding schemes – National Urban Information System – Digitization of spatial data – Editing spatial data for the given planning problem

UNIT III ATTRIBUTE DATA INPUT 15

Image Processing – Geo-referencing of Satellite Imagery, Cadastral Map, 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

Generation of 3-D Model in GIS, Performing overlay functions – Manipulating attribute data, Preparation of Existing Land use – Map and report generation, Network Analysis

UNIT V URBAN LAND USE MODELING 15

Need for model – Land use suitability analysis, Preparation of Land use Map – Urban land use modeling, Transitional potential modeling and land allocation modeling.

TOTAL PERIODS: 75

LEARNING OUTCOME:

The outcome of this course is to provide students with a comprehensive understanding of the concepts, techniques, methods used in GIS and application of those methods to prepare Existing and Proposed Land use maps.

REFERENCES:

1. Arthur. H. Robinson et al., 'Elements of Cartography', John Wiley & Sons, New York, 1995.
2. Judith. A. Tyner, 'Principles of Map Design', The Guilford Press, New York, 2010.
3. Ramesh Elmasri and Shamkant.B.Navate, 'Fundamentals of Database Systems', Pearson Education Limited, USA, 2010.
4. AnjiReddy.M., 'Text book of Remote Sensing and Geographical Information Systems', B.S. Publications, Hyderabad, 2008.
5. Michael Law and Amy Collins, 'Getting to know ArcGIS Pro', ESRI Press, USA, 2016.
6. Paul. D. Zwick and Margaret.H. Carr, 'Smart Land-use Analysis: The LUCIS Model', ESRI Press, USA, 2007.
7. Paul. D. Zwick et al., 'Advanced Land-Use Analysis for Regional Geodesign: Using Lucisplus', ESRI Press, USA, 2015.
8. Pratheep Moses K., 'Urban Land Use Model to test the efficacy of High Resolution Satellite Imagery in preparing Land Use Map – A Case Study of Port Blair, Andaman and Nicobar Islands, India', PhD Thesis, Anna University, Shodhganga@INFLIBNET, 2013.

TP5112

PLANNING STUDIO I

**L T P C
0 0 10 5**

OBJECTIVES:

- Development of communication skills – Map preparation, report writing and presentation skills.
- Understanding of various surveys relating to preparation of plans for Urban and Rural Settlements.
- Preparation of plans for micro - level units.

A) STUDY AT VILLAGE LEVEL - Structure of village, Current Rural Improvement Programmes, Structure of administration, Household Survey and Identification of problems.

B) STUDY ON URBAN LAND USES - Land use Zones – Activities that are permissible in each zone – Their functional and spatial characteristics – Land and building use survey - Issues related to functions and spaces.

C) PLANNING AT RESIDENTIAL LAYOUT LEVEL - Review of literature - Existing act and byelaws - Design criteria's - Study of existing layouts - Site analysis - Alternative designs - Finalization of designs, Cost of the projects and model.

TOTAL PERIODS: 150

LEARNING OUTCOME:

Students are introduced to explore village life and compare it with that of urban life with reference to land use and activities. Also the student will have the ability to conceptualize analytically and have to prepare a residential layout.

TP5201

CITY AND METROPOLITAN PLANNING

L T P C
2 1 0 3

OBJECTIVES:

- Understand evolution of planning and the scope of city and a metropolitan planning
- Learn the actual process of plan making at different levels
- Aware of development regulations and plan implementation
- Understand the importance of urban renewal in today's context.

UNIT I INTRODUCTION 8

Contemporary theories and concepts in city planning –Planning during Pre-Independence and Post-Independence era in India

UNIT II DEVELOPMENT PLAN 10

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.

UNIT III PLAN IMPLEMENTATION AND REGULATION 10

Planning Acts and authorities – Statutory approval process – DDP rules – Land use zones and sub classification – Permissible activity and appellant activities – Unauthorized developments.

UNIT IV URBAN RENEWAL 9

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.

UNIT IV CASE STUDIES 8

Critical appraisal of City and Metropolitan Planning in India through Case Studies

TOTAL PERIODS: 45

LEARNING OUTCOME:

As an outcome of the above course the student will have the ability to conceptualize, analytically define, and treat city plan and metropolitan plan professionally. They would earn skills in preparing and reviewing the above plan.

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REFERENCES:

1. John L, Taylor and David G. Williams, 'Urban Planning Practice in Developing Countries', Pergamon Press, Oxford, 1982.
2. Kaiser Edward J., 'Urban Land use Planning', University of Illinois Press, Urbana, 1995.
3. Lichfield N.,(Ed), 'Evaluation in Planning: Facing the Challenge of Complexity', Kluwer academic Publications, Dordrecht. 1998.
4. Melville Campbell Branch, 'Comprehensive Planning for the 21st Century: General Theory and Principles', Westport, Conn. Praeger, 1998.
5. Randall Crane and Rachel Weber, 'The Oxford Handbook of Urban Planning', OxfordUniversity Press, New York, 2012.
6. Stuart Chapin and Edward John Kaiser, 'Urban Land use Planning', University of IllinoisPress, Urbana, USA., 1979.

TP5202

REGIONAL PLANNING AND DEVELOPMENT

L T P C
2 1 0 3

OBJECTIVES:

- Understand the concept of regional planning and analytical tools for regional analysis
- Develop knowledge in theories of regional development and their relevance in present context
- Facilitate students to develop the skills 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 Theory - Industrial Location Theory: Understanding in the present context of Development

UNIT III GROWTH MODELS 9

Growth pole and growth center–Core periphery concept – Central place theory–Agricultural and 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.

TOTAL PERIODS: 45

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.

Attested

REFERENCES:

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

TP5203

TRAFFIC AND TRANSPORTATION PLANNING

L T P C
2 1 0 3

OBJECTIVES:

- Give an insight into city development and transportation, salient features of road geometrics and intersection, traffic management, traffic surveys and studies, planning aspects of different mass transportation systems, elements of sustainable urban mobility and new trends in transport development.

UNIT I CITY DEVELOPMENT AND TRANSPORT

9

Evolution of transport modes, Transport problems and mobility issues – Urban form and transport patterns, land use – Land use and mobility patterns in cities – Implications of land use patterns on transport and mobility.

UNIT II ROAD GEOMETRIC AND INTERSECTIONS AND ROAD CAPACITIES

10

Urban and rural road classification – Traffic characteristics – Geometric elements on alignment, Sight distances and cross sectional elements – Different types of intersections – Grade-separated intersections – Concept of PCU and Level of Service – Traffic flow and speed relationship diagrams – Road capacities.

UNIT III TRAFFIC SURVEYS AND TRAFFIC MANAGEMENT

10

Classified volume counts – Origin and destination studies – Parking surveys – Speed and delay studies – Traffic and travel characteristics – Methods of survey and analysis – Field studies – Traffic management – Transport system management.

UNIT IV TRANSPORT PLANNING

8

Outlining the 4-stage transportation planning process and its interrelation with master planning process – Need and benefits of land use and transport integration – Different mass transit modes – Capacities – Limitations – Planning aspects – Para transit modes – Private transport modes – Inter-modal integration – Unified transportation authority.

UNIT V SUSTAINABLE URBAN MOBILITY

8

Need for sustainable development and transport – Non-motorized transport – Transit Oriented Development – Innovative transport developments and its implication on urban development and mobility.

TOTAL PERIODS: 45

LEARNING OUTCOME:

Understanding of urban transportation planning process, its relationship to transportation facilities development, and evaluation for urban transportation planning, and 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.
10. Chakraborty and Das, 'Principles of Transportation Engineering', PHI Learning, India, 2009.

TP5204

PLANNING LEGISLATION AND PROFESSIONAL PRACTICE

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OBJECTIVES:

- Make students aware and understand the relevance of constitution and legislation in relation to spatial planning.
- Facilitates students to experience implications of the existing legislations relating to planning and its importance and shortcomings.
- Expose students to problems and prospects of urban and regional planning in terms of professional practice.

UNIT I THE CONCEPT AND THE RELEVANCE OF THE CONSTITUTION AND PLANNING LEGISLATION

8

The national goals of the Constitution and its relevance to Planning – Transformation of Rights to property from a fundamental right to legal right - Concept of the Planning Law - Historical evolution of Planning Law in India and in the United Kingdom and their inter-relationship – Planning Legislation as a positive tool in preparation and implementation of urban and regional plans.

UNIT II TOWN AND COUNTRY PLANNING LEGISLATIONS AND LAWS GOVERNING LOCAL BODIES

10

Town and Country Planning Acts and their Review - Urban Local Bodies Laws, Legislations for Panchayats, Municipalities, Municipal corporations, Interface between the Planning and Local Bodies Acts - Local bodies Finance, Revenue, Expenditure and Resource Mobilization - The Constitution (73rd and 74th Amendment) Act, 1992 and their implications on planning and development.

UNIT III LAWS INCIDENTAL TO PLANNING AND THEIR IMPLICATIONS

10

Urban Development Authorities Acts, Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Act, 2013, Housing Acts including Slum Housing, Acts related to the Environment, Rent Control Acts, Law relating Water Supply and Sewerage, Electricity, Registration, Parks, Play Fields and Open Spaces, Places of Public Resorts.

UNIT IV DEVELOPMENT REGULATIONS AND BUILDING RULES AND THEIR ENFORCEMENT

9

Development Regulations – Zoning Laws, Layout and Building Rules in Municipal Corporations, Municipalities, Town and Village Panchayats – Legal Mechanism for enforcement, their

coordination and the Way Forward – Case Studies – Regulations for Ribbon Development, Arbitration, Accommodation Reservation, Transfer of Development Rights, Land Pooling.

UNIT V PROFESSIONAL PRACTICE, CODE OF CONDUCT AND INSTITUTIONS 8

Multiple tasks of Planners in the Planning and Development Process of cities and regions in public and private sectors – Expression of interests, Terms of Reference for different practice and charges - career options and prospects – Professional ethics and code of conduct – Role of Professional Institutions at the National and international level in the promotion of the Profession.

TOTAL PERIODS: 45

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. Department of Housing and Urban Development, Government of Tamil Nadu, The Tamil Nadu Town and Country Planning Act, 1971, Chennai.
2. Ministry of Rural Development, Government of India, 'Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Act, 2013.
3. Department of Municipal Administration and Water Supply, Government of Tamil Nadu, Chennai 'The Chennai City Municipal Corporation Act, 1919',
4. Department of Municipal Administration and Water Supply, Government of Tamil Nadu, Chennai, Tamil Nadu District Municipalities Act, 1920',
5. Department of Rural Development, Government of Tamil Nadu, 'Tamil Nadu Panchayat Act, 1994'.
6. The Government of India, The Constitution (73rd and 74th Amendment) Act, 1992
7. The Government of Karnataka, Bengaluru, 'Karnataka Urban Development Authorities Act, 1987.
8. The Government of Tamil Nadu, 'Tamil Nadu Housing Board Act', 1961
9. The Government of Tamil Nadu, 'Tamil Nadu Slum (Improvement and Clearance) Areas Act, 1971.
10. The Government of India, Ministry of Environment and Forest, 'The Environment (Protection) Act, 1986'.
11. The Government of India, The Ministry of Environment and Forest, Water (Prevention and Control of Pollution) Act, 1974'.
12. The Government of India, Ministry of Environment and Forest, The Air ((Prevention and Control of Pollution) Act, 1981'.
13. The Government of Tamil Nadu, Department of Municipal Administration and Water Supply (MAWS), Chennai Metropolitan Water Supply and Sewerage Board Act, 1978.
14. Tamil Nadu Places of Public Resorts Act, 1888.
15. The Government of India, The Electricity Act, 2003.
16. The Government of India, Registration Act, 1908.
17. MAWS, Government of Tamil Nadu, Tamil Nadu Parks, Play Fields and Open Spaces (Preservation and Regulation), Act, 1958.
18. The Government of Maharashtra, Maharashtra Rent Control Act, 1999.
19. The Government of Karnataka, Karnataka Rent Act, 1999.
20. Development Regulations, 2013, Second Master Plan for Chennai Metropolitan Planning Area, Volume II, Chennai Metropolitan Development Authority.
21. MAWS, Government of Tamil Nadu, Chennai City Municipal Corporation Building Rules, 1972.
22. MAWS, Government of Tamil Nadu, Tamil Nadu Municipal Building Rules, 1972
23. Department of Rural Development, Tamil Nadu Panchayat Building Rules, 1997.
24. Indian Roads Congress, IRC Code 062, Guidelines for control of access on Highways
25. Patsy Healey, Robert Upton, 'Crossing Borders: International Exchange and Planning practices', Routledge, 2010.

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OBJECTIVES:

- Intends to provide an in-depth study of approaches for policy formulation, implementation and evaluation.
- Provide a critical analysis of policies that are directly connected with inclusive sustainable urban development.

UNIT I APPROACHES IN PUBLIC POLICY MAKING 9

Nature, Scope, Significance and Contextual Perspectives in Policy Making Approaches and Models - Power Approaches to Policy-Making, Institutional Approaches to Policy Making, Strategic Planning Approach for Improving Public Policy - Rational Approach and Rationality Model - Decision Making Process and Techniques.

UNIT II POLICY MAKING – POWERS AND ROLES 9

Structure of Power and Public Policy-Making Process; Power and Role of Non-Officials in Policy-Making; Policy-Making Power within the Executive; Intergovernmental Relations and Public Policy Issues.

UNIT III POLICY IMPLEMENTATION 9

Public Policy Implementation: Approaches and Models; Inter-Organizational Relations and Public Policy Implementation; Public Policy Delivery Agencies and Implementers - Public Policy Implementation: Gaps and Problems, Implementation of Global Policy Agendas.

UNIT IV POLICY EVALUATION 9

Approaches and Techniques; Policy Evaluation: Techniques and Approaches; Policy Evaluation: Role, Process and Criteria; Policy Performance: Evaluating Impact.

UNIT V CASE STUDIES OF POLICIES 9

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

TOTAL PERIODS: 45**LEARNING OUTCOME:**

The students will gain knowledge in the process of policy making, implementation and evaluation in terms of its significance and contextual perspectives. Also, students would be exposed to existing policies relevant planning of urban and rural settlements at the National and State levels.

REFERENCES:

1. Urban Policy in Practice, Tim Blackman, Publisher: Routledge, U.K, 1994.
2. Sapru R. K. 'Public Policy: Art and Craft of Policy Analysis', PHI Learning Pvt. Ltd-New Delhi, 2011.
3. William N. Dunn 'Public Policy Analysis', Pearson Education, 2015.
4. Agnihotri .V. K, 'Public Policy, Analysis and Design', Concept Publishing, 1995.
5. Kent E. Portney , 'Approaching Public Policy Analysis: An Introduction to Policy and Programme Research' , Prentice Hall- Gale, 1986.

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OBJECTIVES:

- To train students in the preparation of development plan conceived with in the framework of the approved perspective plan of a medium size town having a plan period of 5 or10 years.

The students are focused to learn to review and prepare plan for a medium size town such as Development Plan/Master Plan/Structure Plan. The plan would include components, such as Physical Characteristics, Natural Resources, Demographic Characteristics, Economic base, Employment, Shelter, Transportation, Social and Infrastructure facilities, Finance, Institutional set-up etc.

An urban settlement would be selected based on the selection criteria and the information regarding the components stated above would be collected both from the primary and secondary sources and analyzed.

A Stake holders consultative meeting is also conducted at the field level. A report/ maps/ charts are the media through which the case study is expected to be presented.

TOTAL PERIODS:150**LEARNING OUTCOME:**

The students will develop the knowledge and skills necessary to prepare development plan for a town.

TP5301

PROJECT FORMULATION AND EVALUATIONL T P C
2 1 0 3**OBJECTIVES:**

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.

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– TamilNadu transparency in tenderrules-Organizational aspects in project management–Network techniques for project management.


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UNITY PROJECT MONITORING AND EVALUATION**8**

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

TOTAL PERIODS: 45**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. Henderson PD, 'Investment Criteria for Public Enterprises, Penguin Books, New Delhi, 1999.
3. Michael Bamarger and Eleanor Hewitt, 'Monitoring and Evaluating, Urban Development Programmes :A Hand Book for Program Managers and Researchers, The World Bank, 1988.
4. Kurowski Lech, David Sussman., "Investment Project Design – A Guide to Financial and Economic Analysis with Constraints" John Wiley & Sons publications, 2011.
5. Prasanna Chandra, 'Projects', Tata McGraw-Hill Publishing Company Limited, New Delhi, 2009.
6. Raghuram G, Rekha Jain, Sidharth Sinha, Prem Pangotra and Sebastian Morris, 'Infrastructure Development and Financing, Macmillan India, New Delhi, 2000.
7. Warren C. Baum, 'The Project Cycle', World Bank – Economic Development Projects, Washington, 1993.

TP5311

PLANNING STUDIO III**L T P C
0 0 10 5****OBJECTIVES:**

- To train students in the preparation of Block Development Plan/District Plan/Regional Plan for a Block/ District/or for a group of Districts

Elaboration of the principals and techniques adopted and learnt themes and planning projects. Application of the mesand techniques of planning in the preparation of development plan at regional, district, blocks, central village and village level, along with community action and participation plans. Review of 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 Stakeholders 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 PERIODS:150**LEARNING OUTCOME:**

The students will be trained and developed with necessary skills to prepare block/district/regional level development plans with the overall understanding of the objectives and scope of the plans for varying spatial entities.

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OBJECTIVES:

- Develop knowledge and skills in identifying appropriate literature for a given topic of research/study, draw inferences and understanding from a wide range of literature and suitably use the knowledge acquired in the context of study undertaken.

The preparation of Thesis is undertaken in two phases. Thesis Phase I is undertaken in III Semester and the Phase II in IV Semester.

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.

During the Phase I, the students collect, review literature on the Thesis topic and enrich their knowledge on the topic of thesis. The inferences drawn and ideas synthesized from the literature will help the students to frame appropriate methodologies for the Phase II of their Thesis and also in evolving appropriate and tested solutions for issues identified in the topic of Thesis. A formal report written systematically on the topic of thesis will be produced as part of the course.

TOTAL PERIODS: 150**LEARNING OUTCOMES:**

A well laid plan/methodology for Phase II of the Thesis towards identification of issues, setting up objectives, drawing viable proposals on the topic of thesis.

OBJECTIVES:

- To help the students to have direct understanding of the practice of planning profession
- To help the students to formally and informally interact with the Officials engaged in planning to enhance employability of the students.

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 a imedat 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 Thesis works.

The students are expected to complete the Internship Training before the commencement of the third semester and enroll for the same in the third semester. The students shall submit an Internship Training Report, on or before the last working day of the third semester. The student's shall be evaluated on the basis of the Report submitted through a Viva-Voce Examination, as part of the End Semester Examinations of the third semester.

LEARNING OUTCOME:

Enrichment in their theoretical understanding of the planning principles and concepts and better preparedness of the students for employment in the planning profession.

TP5411

THESIS – PHASE II

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OBJECTIVES:

- To develop the knowledge and skills to carry out independently the tasks such as identification of development issues through a well laid out methodology and offering rational solutions towards sustainable development of the urban and rural settlements.
- To develop the necessary skills on documenting the plan proposals

During the Phase II of the Thesis, the students shall apply the literature knowledge gained in the Phase I to specific Case Study areas/topics to identify developmental issues and offer solutions for the same. The outcome of Phase I will also help the students to frame appropriate methodologies for the Phase II Thesis and also in evolving innovative and tested solutions for issues identified in the case studies. A formal report written systematically on the topic of thesis will be produced as part of the course.

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 PERIODS: 330

LEARNING OUTCOME:

Ability to understand sectoral and spatial issues emerging as a consequence to development and scientifically analyze the planning issues, apply solutions appreciating the principles of planning in a democratically acceptable and a justifiable manner.

TP5001

DEVELOPMENT MANAGEMENT REGULATIONS

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OBJECTIVES:

- Familiarize the students on the concept of development and highlight the importance of regulated physical development.
- 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

8

Introducing Act relating to Town Planning- Aspects of development- Physical, Social, and Economic – Importance of physical development - Need for regulatory measures – Tools for regulating the development - Master plan and development regulations.

UNIT II ACTS RELATING TO LAND DEVELOPMENT

9

Indian forest act 1927 – Environmental protection act 1986 – Indian monument act – Hill region development act – Regulations relating to development of integrated townships, Special economic zones, export processing zones, and IT Parks.

UNIT III MASTER PLAN AND LAND USE ZONING

10

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/activity within land use zones.

UNIT IV LAND DEVELOPMENT REGULATIONS AND PLANNING NORMS 10

Norms governing residential and industrial layouts - Linkage, Hierarchy of roads, Plot size, Frontage, and Open Space Reservations – Reservation of land for EWS - Allocation of land for public purposes - Classification of buildings - Building Height, Number of floors, Floor space index – Parking requirements - Provision of utilities and services.

UNIT V CASE STUDIES 8

Tamil Nadu Combined Development and Building Rules, 2019, Special Economic Zone and Information Technology parks developments in Tamil Nadu.

TOTAL PERIODS: 45

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. Chennai Metropolitan Development Authority, 'Second Master Plan for Chennai Metropolitan Area 2026' 2008.
2. Ministry of Commerce & Industry, Government of India, 'Special Economic Zone Rules' 2006.
3. Government of Tamil Nadu, 'Town & Country Planning Act, 1971'
4. Town and Country Planning Organization, Government of India, 'Urban and Regional Development Project Formulation and Implementation Guidelines' 2015.
5. Government of Tamil Nadu, 'Tamil Nadu Combined Development and Building Rules, 2019
6. Government of India, 'National Building Code of India, 2016, Bureau of Indian Standards, New Delhi, 2016.

TP5002

E-GOVERNANCE AND COMMUNITY PLANNING

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OBJECTIVES:

- Make students to understand that planning is a public domain activity wherein the community has a significant role in planning, executing and managing development in their local areas.
- Further to understand the demands of modern technology for stakeholders participation 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.

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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 PERIODS: 45

LEARNING OUTCOME:

Understanding the means of improving the governance at the local level and the importance of community participation and the use of technology to connect with people in decision making process.

REFERENCES:

1. AmartyaSen, 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', PlutoPress, London, 2008.
5. Graham S and Marvin, S, 'Telecommunication and the City: Electronic Spaces', UrbanPlaces, Rent ledge, London, 1996.
6. John, Friedmann, 'Empowerment the Politics of Alternative Development', Black wellPublishers, Oxford UK, 1992.
7. Mathias Finger and Sultana (Eds), 'e-Governance a Global Journey', Global Publications. London, 2012.
8. 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.
9. Sako Mustered and Zoltan Kovacs, 'Place making and Policies for Competitive Cities', Wiley Blackwell, USA, 2013.



TP5003

PLANNING FOR RESILIENT HUMAN SETTLEMENTS

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

OBJECTIVES:

The objective of this course is to make the students understand that sooner or later, we need to plan resilient cities for its sustainable future taking note of socio-economic, environmental, and environmental consequences of development for survival.

UNIT I PRINCIPLES FOR URBAN RESILIENCE 8

Urban Disaster Resilience, Risk, Uncertainty and Complexity, Disaster Risk Management and opportunities for Resilience, Social Resilience, Land use Planning, Urban Ecosystems, Urban upgrading, Incorporating Resilience into the Project Cycle.

UNIT II LAWS ON DISASTER MANAGEMENT 9

Laws on Disaster Management – General, Fire, Explosive, Flood, Dam Burst, Tsunami and Cyclone, Lightning, Earthquake, Snow avalanches/Landslide, Chemical/Industrial/Nuclear, Biological, Poisoning, Accident, Stampede, Epidemic Diseases, Drought, Cloud burst, Pest attack, Frost and Cold Wave.

UNIT III NDMA GUIDELINES AND REPORTS 9

NDMA Guidelines and Reports – Earthquakes, Tsunami, Cyclones, Floods, Urban Flooding, Drought, Diversion of Forest land for Non-forest purposes, Landslides and Snow Avalanches, Chemical/Industrial/Nuclear, Preparation of Disaster Management Plan – Incident Management Response system, Disaster Management and Communication System, Seismic Retrofitting of deficient buildings and structures.

UNIT IV THE PRACTICE OF URBAN RESILIENCE 9

Resilient Planning – Transportation – Mobility of people, goods and services, Energy – Community and building electric power, Water –Supply, waste and storm water, Natural environment – Biological resources and landscapes, Solid Waste – garbage, refuse and sludge, Economics- Industries, Job and financing, Risk assessment, Risk-based land use Planning.

UNIT V CASE STUDIES 10

Disaster Resilient case studies -Earthquakes, Urban Flooding, Tsunami, Cyclones, Landslides, Heat waves and Optimal seawall height based on risk analysis with land use and soft measures.

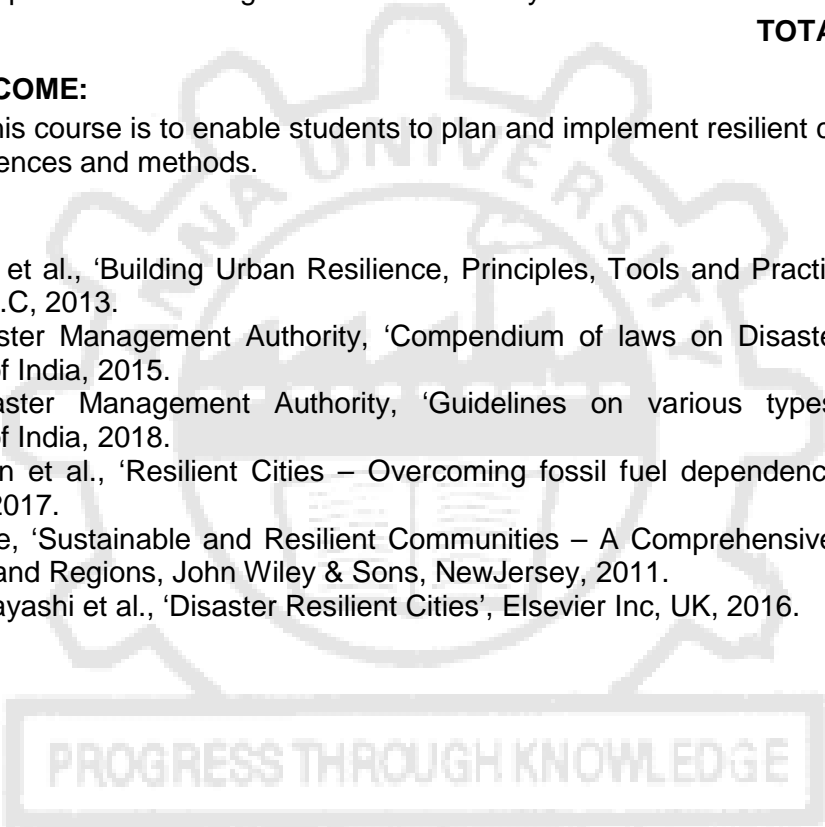
TOTAL PERIODS: 45

LEARNING OUTCOME:

The outcome of this course is to enable students to plan and implement resilient cities based upon the theory, experiences and methods.

REFERENCES:

1. Abhas K. Jha et al., 'Building Urban Resilience, Principles, Tools and Practice', World Bank, Washington D.C, 2013.
2. National Disaster Management Authority, 'Compendium of laws on Disaster Management', Government of India, 2015.
3. National Disaster Management Authority, 'Guidelines on various types of Disasters', Government of India, 2018.
4. Peter Newman et al., 'Resilient Cities – Overcoming fossil fuel dependence', Island Press, Washington, 2017.
5. Stephen Coyle, 'Sustainable and Resilient Communities – A Comprehensive Action Plan for Town', Cities and Regions, John Wiley & Sons, NewJersey, 2011.
6. Yoshitsugu Hayashi et al., 'Disaster Resilient Cities', Elsevier Inc, UK, 2016.



TP5004

REAL ESTATE DEVELOPMENT

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

OBJECTIVES:

- 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 PERIODS: 45**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.

ANNA UNIVERSITY
PROGRESS THROUGH KNOWLEDGE

TP5005**RURAL DEVELOPMENT****L T P C****3 0 0 3****OBJECTIVES:**

- Help students to understand the need and requirements of rural development and the effectiveness of the public policies and programmes in this regard.

UNIT I INTRODUCTION**8**

Concept, Nature, elements and scope of rural development – Significance of rural development in Indian context. History of rural development in India. Centralized Vs. decentralized planning, Micro-level Planning, Participatory Rural planning.

UNIT II LAND AND ITS UTILIZATION**8**

Land Holdings -Sub-division and Fragmentation – Land Ownership and Tenancy – Land Reform Measures – Land use pattern – Land use / Land cover - Changes in Land use Pattern – Factors responsible for changes in land use pattern. Approaches to ecological sustainability - rural-urban continuum, agrarian structure and its transformation.

UNIT III SOCIO ECONOMIC FACTORS FOR RURAL DEVELOPMENT 9

Rural settlement, typology, structure, spatial significance; Rural Settlement Analysis: Types, activity, environment and economic interface in rural habitat, technology in rural settlement. Role and the place of village industries in Indian economy - Approach to Rural Industrialization Policies and Programmes for Rural Industries, Types of Rural market.

UNIT IV RURAL INFRASTRUCTURE PLANNING 10

Planning principles for village and community norms. Rural Infrastructure Development: Infrastructure Policy: Regulatory and Facilitative, Investment Requirement at various levels and actual investments in Infrastructure; Role of Infrastructure in rural development, Critical Infrastructure in rural development, and Indicators of infrastructure development in defining rural development, standards and bench marks for infrastructure provision and delivery at various levels; basic need and rural sanitation, water supply, hygiene and drainage, technology transfer and options.

UNIT V RURAL DEVELOPMENT POLICIES 10

Rural Development Legislations and Policies in India –Case studies in rural development. Inclusive Development, smart villages, Rurban, CSR Policy and Implementation - Community Development Programme (CDP), Gram Panchayat Development Plan. Bharat Nirman – A business plan for rural infrastructure, Rural Building Centers, PMGSY, PMAY, Central Rural Sanitation Programme, PURA. Rural Employment Schemes, Programmes: Command Area Programme, Drought Prone Area Programme, Backward Area Development Programme.

TOTAL PERIODS: 45

LEARNING OUTCOME:

The outcome of this course is to provide students with a comprehensive understanding of Rural area in terms of land use Planning, Socio Economic factors to be considered for rural development, Rural infrastructures to be provided and prevailing policies for rural development.

REFERENCES:

1. Agarwal .A .N and KundanaLal, 'Rural Economy of India', Vikas publishing House Ltd.- New Delhi-110014, 1990.
2. Bhaduri .A, 'The Economic Structure of Backward Agriculture', Macmillan, Delhi, 1984.
3. Dagli, V. 'Khadi and Village Industries in the Indian Economy', Commerce Publication Division, Bombay, 1976.
4. Katar Singh, 'Rural Development, principles, polices and Management', Sage Publication, New Delhi, 1986.
5. N.Lalitha, 'Rural Development in India: Emerging Issues and Trends- Dominant Publishers', Delhi, 2004.
6. Maheswari .S, 'Rural Development in India. A Public policy approach', Sage's publication, New Delhi, 1985.
7. Policies and Initiatives, New Century Publications, New Delhi, 2009.
8. Ram K. Parma, 'Policy Approach to Rural Development', Print well, Jaipur, 1996.
9. Venkata Reddy K. 'Rural Development in India. Himalaya Publishing House', New Delhi, 2000.

**TP5006 TOURISM PLANNING AND DEVELOPMENT L T P C
3 0 0 3**

OBJECTIVES:

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

UNIT I INTRODUCTION TO 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 PERIODS: 45**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. Bhatia A.K. 'Tourism Development-Principles and Practice', Sterling Publishers, New Delhi, 1982.
3. David J. Telfer, Richard Sharpley, 'Tourism and development in the developing world' Routledge, 2008.
4. David L. Edgell, 'Tourism Policy and Planning, Routledge, London, 2013.
5. Edgell D, 'Tourism policy and planning: yesterday, today and tomorrow' Routledge, 2008.
6. Glare A. Gunn, 'Tourism Planning-Basics, Concepts, Cases', Taylor & Francis, London, 1994.
7. Manuel Baud Bouy, 'Tourism and Recreation Development'. Architecture Press, London, 1977.
8. Noel Scott and Eric Laws, 'Safety and Security in Tourism', Routledge, London, 2013.
9. Peter Mason, 'Tourism Impacts, Planning and Management' Routledge, 2012.
10. Willam Allen, 'Heritage Tourism and Society', Manseel Publishing Ltd. England, 1990.

TP5007**URBAN DESIGN****L T P C
3 0 0 3****OBJECTIVES:**

- To introduce and enable understanding of various aspects of urbanism through historical and theoretical frameworks
- To understand issues of contemporary urban form.
- To understand the role of urban design interventions.

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UNIT I INTRODUCTION 10

Introduction to origin and evolution of cities and urbanism - Overview of rise and fall of various river civilizations. Detailed study of urban development throughout the globe. Western - Morphology of early cities - Greek Agora - Roman forum - Medieval towns - Renaissance place making - Ideal cities – Industrialization and city growth - The eighteenth century city builders Garnier's industrial city - the American grid planning- Anti Urbanism and the picturesque- Cite Industrielle- Cite Nuovo-radiant city. Indian - Evolution of urbanism in India- Temple towns - Mughal city form- Medieval cities - Colonial urbanism - Urban spaces in modernist cities - Chandigarh, Bhubaneswar and Gandhi Nagar subsequent directions – Case studies.

UNIT II THEORIES AND ILLUSTRATIONS OF URBAN DESIGN 9

To understand urban design through reading and illustrations - Ideas of Imageability and townscape - Cullen, Lynch- place and genius loci - Collective memory historic reading of the city and its artifacts - Rossi- social aspects of urban space - Life on streets and between buildings, Life style, gender and class, Jane Jacobs, William Whyte. Contemporary theories in Urbanism - New Urbanism concepts.

UNIT III ISSUES OF CONTEMPORARY URBAN FORM 9

Introduction to various issues and aspects that impinge on the urban condition today such as globalization, Digital revolution, Contemporary processes, Sustainability, Splintering urbanism through changes in information and communication networks and transportation - Role of big data analytics in inclusive urbanism

UNIT IV URBAN INTERVENTIONS- SUSTAINABLE DEVELOPMENT 9

Sustainable development – Sustainable Cities Program - Revitalization of Brown Field sites – Transit Metropolis - Case Studies.

UNIT V URBAN INTERVENTIONS- RESTRUCTURING THE CITY 8

Contemporary Processes in Urban Design- Place making in the Digital Age – Reconfiguring public realm – Urbanization and Excursions on density.

TOTAL PERIODS: 45

LEARNING OUTCOME:

Students develop awareness of urbanism as a phenomenon and understand the urban issues with reference form and knowledge on interventions for restructuring of urban areas which are more sustainable in nature.

REFERENCES:

1. A.E.J. Morris, 'History of Urban Form before the Industrial Revolution', Prentice Hal, 1996.
2. Edmund Bacon, 'Design of Cities', Penguin, 1976.
3. Gordon Cullen, 'The Concise Townscape', The Architectural Press, 1978.
4. Kevin Lynch, 'Image of the City', MIT Press 1960.
5. Christian NorbergSchulz, 'Towards a Phenomenology of Architecture', Rizzoli New York, 1980.
6. Charles Correa, 'Housing and Urbanisation', Thames and Hudson, 1999.
7. Donald Appleyard, Kevin Lynch, John R. Myer, 'The View from the Road', MIT Press, 1965.
8. Gosling and Maitland, 'Urban Design', St. Martin's Press, 1984.
9. Peter Calthorpe, 'Urbanism in the age of Climate Change', Island Press; 2nd edition , 2013.
10. Thomas A, Horan, 'Digital Places: Building our city of bits', Urban Land Institute, 2000.
11. Tridib Banerjee, Anastasia Loukaitou- Sideris, 'Companion to Urban Design', Routledge ,2014.
12. William J. Mitchell, 'City of Bits: Space, Place and the infobahn', MIT Press, 1996.

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OBJECTIVES:

- 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 OVERVIEW 9

Organization of local self-governments - The 74th 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 - Nontraditional 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 center 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:

- Broadbent, 'Planning and Profit in the Urban Economy', Meuthen & Co. Ltd, U.K. 1997.
- 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.
- Edward J. Blakely, 'Planning Local Economic Development', SAGE Publications, New Delhi, 1994.
- Ian Blore, Nick Devas, R. P. Slater 'Municipalities and Finance: A Sourcebook For Capacity Building' Earthscan, 2004.
- Joseph Oberman, 'Planning and Managing the Economy of the City', Praeger Publishers, U.K., 1972.

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OBJECTIVES:

- Students learn the concept and basic principles of sustainable development and understand physical form and the morphology of cities to 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.

UNIT V SUSTAINABLE TRANSPORTATION 9

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

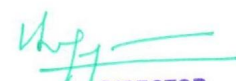
TOTAL PERIODS: 45**LEARNING OUTCOME:**

Sustainable principles are considered the panacea for all problems of urban development. In this context, students learn, get courage and confidence to address urban and rural development issues in a sustainable manner.

REFERENCES:

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

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AUDIT COURSES (AC)

AX5091

ENGLISH FOR RESEARCH PAPER WRITING

**L T P C
2 0 0 0**

OBJECTIVES

- Teach how to improve writing skills and level of readability
- Tell about what to write in each section
- Summarize the skills needed when writing a Title
- Infer the skills needed when writing the Conclusion
- Ensure the quality of paper at very first-time submission

UNIT I INTRODUCTION TO RESEARCH PAPER WRITING 6

Planning and Preparation, Word Order, Breaking up long sentences, Structuring Paragraphs and Sentences, Being Concise and Removing Redundancy, Avoiding Ambiguity and Vagueness

UNIT II PRESENTATION SKILLS 6

Clarifying Who Did What, Highlighting Your Findings, Hedging and Criticizing, Paraphrasing and Plagiarism, Sections of a Paper, Abstracts, Introduction

UNIT III TITLE WRITING SKILLS 6

Key skills are needed when writing a Title, key skills are needed when writing an Abstract, key skills are needed when writing an Introduction, skills needed when writing a Review of the Literature, Methods, Results, Discussion, Conclusions, The Final Check

UNIT IV RESULT WRITING SKILLS 6

Skills are needed when writing the Methods, skills needed when writing the Results, skills are needed when writing the Discussion, skills are needed when writing the Conclusions

UNIT V VERIFICATION SKILLS 6

Useful phrases, checking Plagiarism, how to ensure paper is as good as it could possibly be the first- time submission

TOTAL: 30 PERIODS

OUTCOMES

CO1 –Understand that how to improve your writing skills and level of readability

CO2 – Learn about what to write in each section

CO3 – Understand the skills needed when writing a Title

CO4 – Understand the skills needed when writing the Conclusion

CO5 – Ensure the good quality of paper at very first-time submission

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1										✓		✓
CO2										✓		✓
CO3										✓		✓
CO4										✓		✓
CO5										✓		✓

REFERENCES

1. Adrian Wallwork , English for Writing Research Papers, Springer New York Dordrecht Heidelberg London, 2011
2. Day R How to Write and Publish a Scientific Paper, Cambridge University Press 2006
3. Goldbort R Writing for Science, Yale University Press (available on Google Books) 2006
4. Highman N, Handbook of Writing for the Mathematical Sciences, SIAM. Highman's book 1998.

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OBJECTIVES

- Summarize basics of disaster
- Explain a critical understanding of key concepts in disaster risk reduction and humanitarian response.
- Illustrate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
- Describe an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
- Develop the strengths and weaknesses of disaster management approaches

UNIT I INTRODUCTION 6

Disaster: Definition, Factors and Significance; Difference between Hazard And Disaster; Natural and Manmade Disasters: Difference, Nature, Types and Magnitude.

UNIT II REPERCUSSIONS OF DISASTERS AND HAZARDS 6

Economic Damage, Loss of Human and Animal Life, Destruction Of Ecosystem. Natural Disasters: Earthquakes, Volcanisms, Cyclones, Tsunamis, Floods, Droughts And Famines, Landslides And Avalanches, Man-made disaster: Nuclear Reactor Meltdown, Industrial Accidents, Oil Slicks And Spills, Outbreaks Of Disease And Epidemics, War And Conflicts.

UNIT III DISASTER PRONE AREAS IN INDIA 6

Study of Seismic Zones; Areas Prone To Floods and Droughts, Landslides And Avalanches; Areas Prone To Cyclonic and Coastal Hazards with Special Reference To Tsunami; Post-Disaster Diseases and Epidemics

UNIT IV DISASTER PREPAREDNESS AND MANAGEMENT 6

Preparedness: Monitoring Of Phenomena Triggering a Disaster or Hazard; Evaluation of Risk: Application of Remote Sensing, Data from Meteorological And Other Agencies, Media Reports: Governmental and Community Preparedness.

UNIT V RISK ASSESSMENT 6

Disaster Risk: Concept and Elements, Disaster Risk Reduction, Global and National Disaster Risk Situation. Techniques of Risk Assessment, Global Co-Operation in Risk Assessment and Warning, People’s Participation in Risk Assessment. Strategies for Survival

TOTAL : 30 PERIODS

OUTCOMES

- CO1: Ability to summarize basics of disaster
 CO2: Ability to explain a critical understanding of key concepts in disaster risk reduction and humanitarian response.
 CO3: Ability to illustrate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
 CO4: Ability to describe an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
 CO5: Ability to develop the strengths and weaknesses of disaster management approaches

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	✓											
CO2	✓											
CO3	✓	✓	✓									
CO4	✓	✓	✓									
CO5	✓	✓	✓									

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REFERENCES

1. Goel S. L., Disaster Administration And Management Text And Case Studies”,Deep & Deep Publication Pvt. Ltd., New Delhi,2009.
2. NishithaRai, Singh AK, “Disaster Management in India: Perspectives, issues and strategies” NewRoyal book Company,2007.
3. Sahni, PardeepEt.Al. ,” Disaster Mitigation Experiences And Reflections”, Prentice Hall OfIndia, New Delhi,2001.

AX5093

SANSKRIT FOR TECHNICAL KNOWLEDGE

L T P C
2 0 0 0

OBJECTIVES

- Illustrate the basic sanskrit language.
- Recognize sanskrit, the scientific language in the world.
- Appraise learning of sanskrit to improve brain functioning.
- Relate sanskrit to develop the logic in mathematics, science & other subjects enhancing the memory power.
- Extract huge knowledge from ancient literature.

UNIT I ALPHABETS

Alphabets in Sanskrit

6

UNIT II TENSES AND SENTENCES

Past/Present/Future Tense - Simple Sentences

6

UNIT III ORDER AND ROOTS

Order - Introduction of roots

6

UNIT IV SANSKRIT LITERATURE

Technical information about Sanskrit Literature

6

UNIT V TECHNICAL CONCEPTS OF ENGINEERING

Technical concepts of Engineering-Electrical, Mechanical, Architecture, Mathematics

6

TOTAL: 30 PERIODS

OUTCOMES

- CO1 - Understanding basic Sanskrit language.
- CO2 - Write sentences.
- CO3 - Know the order and roots of Sanskrit.
- CO4 - Know about technical information about Sanskrit literature.
- CO5 - Understand the technical concepts of Engineering.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1										✓		✓
CO2										✓		✓
CO3												✓
CO4												✓
CO5												✓

REFERENCES

1. “Abhyaspustakam” – Dr. Vishwas, Samskrita-Bharti Publication, New Delhi
2. “Teach Yourself Sanskrit” Prathama Deeksha-Vempati Kutumbshastri, Rashtriya Sanskrit Sansthanam, New Delhi Publication
3. “India’s Glorious Scientific Tradition” Suresh Soni, Ocean books (P) Ltd., New Delhi, 2017.

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OBJECTIVES

Students will be able to

- Understand value of education and self-development
- Imbibe good values in students
- Let the should know about the importance of character

UNIT I

Values and self-development–Social values and individual attitudes. Work ethics, Indian vision of humanism. Moral and non-moral valuation. Standards and principles. Value judgements

UNIT II

Importance of cultivation of values. Sense of duty. Devotion, Self-reliance. Confidence, Concentration. Truthfulness, Cleanliness. Honesty, Humanity. Power of faith, National Unity. Patriotism. Love for nature, Discipline

UNIT III

Personality and Behavior Development-Soul and Scientific attitude. Positive Thinking. Integrity and discipline. Punctuality, Love and Kindness. Avoid fault Thinking. Free from anger, Dignity of labour.

Universal brother hood and religious tolerance. True friendship. Happiness Vs suffering, love for truth. Aware of self-destructive habits. Association and Cooperation. Doing best for saving nature

UNIT IV

Character and Competence–Holy books vs Blind faith. Self-management and Good health. Science of reincarnation. Equality, Nonviolence, Humility, Role of Women. All religions and same message. Mind your Mind, Self-control. Honesty, Studying effectively.

TOTAL: 30 PERIODS**OUTCOMES**

Students will be able to

- Knowledge of self-development.
- Learn the importance of Human values.
- Developing the overall personality.

Suggested reading

1. Chakroborty, S.K. "Values and Ethics for organizations Theory and practice", Oxford University Press, New Delhi

OBJECTIVES

Students will be able to:

- Understand the premises informing the twin themes of liberty and freedom from a civil rights perspective.
- To address the growth of Indian opinion regarding modern Indian intellectuals' constitutional
- Role and entitlement to civil and economic rights as well as the emergence nation hood in the early years of Indian nationalism.
- To address the role of socialism in India after the commencement of the Bolshevik Revolution in 1917 and its impact on the initial drafting of the Indian Constitution.

UNIT I HISTORY OF MAKING OF THE INDIAN CONSTITUTION

History, Drafting Committee, (Composition & Working)

UNIT II PHILOSOPHY OF THE INDIAN CONSTITUTION

Preamble, Salient Features

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UNIT III CONTOURS OF CONSTITUTIONAL RIGHTS AND DUTIES

Fundamental Rights, Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights, Right to Constitutional Remedies, Directive Principles of State Policy, Fundamental Duties.

UNIT IV ORGANS OF GOVERNANCE

Parliament, Composition, Qualifications and Disqualifications, Powers and Functions, Executive, President, Governor, Council of Ministers, Judiciary, Appointment and Transfer of Judges, Qualifications, Powers and Functions.

UNIT V LOCAL ADMINISTRATION

District's Administration head: Role and Importance, • Municipalities: Introduction, Mayor and role of Elected Representative, CEO, Municipal Corporation. Pachayati raj: Introduction, PRI: Zila Pachayat. Elected officials and their roles, CEO Zila Pachayat: Position and role. Block level: Organizational Hierarchy(Different departments), Village level:Role of Elected and Appointed officials, Importance of grass root democracy.

UNIT VI ELECTION COMMISSION

Election Commission: Role and Functioning. Chief Election Commissioner and Election Commissioners - Institute and Bodies for the welfare of SC/ST/OBC and women.

TOTAL: 30 PERIODS

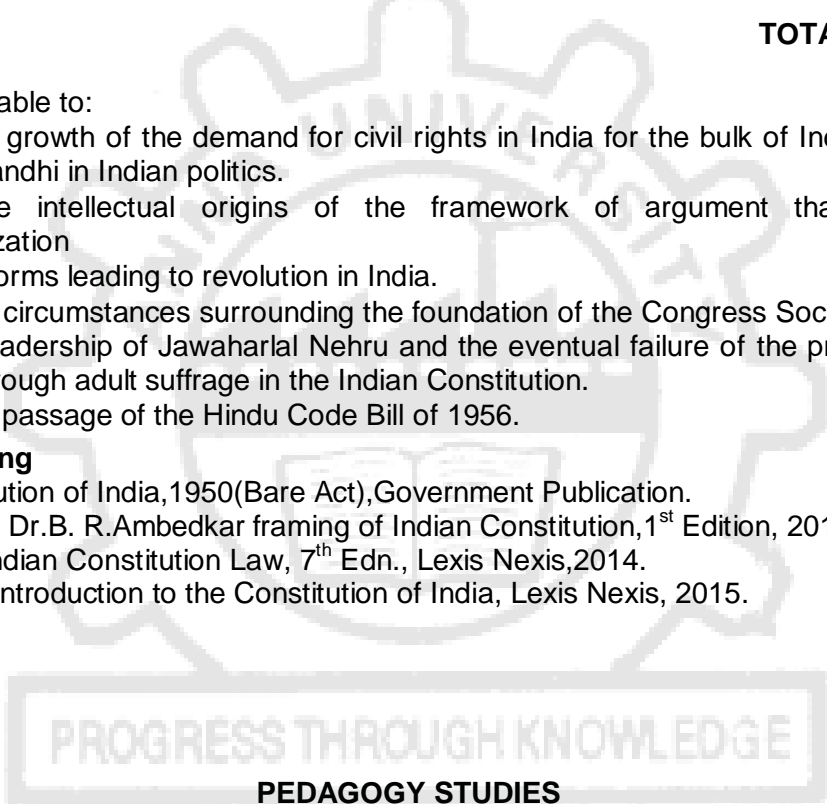
OUTCOMES

Students will be able to:

- Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival of Gandhi in Indian politics.
- Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India.
- Discuss the circumstances surrounding the foundation of the Congress Socialist Party[CSP] under the leadership of Jawaharlal Nehru and the eventual failure of the proposal of direct elections through adult suffrage in the Indian Constitution.
- Discuss the passage of the Hindu Code Bill of 1956.

Suggested reading

1. The Constitution of India,1950(Bare Act),Government Publication.
2. Dr.S.N.Busi, Dr.B. R.Ambedkar framing of Indian Constitution,1st Edition, 2015.
3. M.P. Jain, Indian Constitution Law, 7th Edn., Lexis Nexis,2014.
4. D.D. Basu, Introduction to the Constitution of India, Lexis Nexis, 2015.



AX5096

PEDAGOGY STUDIES

**L T P C
2 0 0 0**

OBJECTIVES

Students will be able to:

- Review existing evidence on there view topic to inform programme design and policy
- Making under taken by the DfID, other agencies and researchers.
- Identify critical evidence gaps to guide the development.

UNIT I INTRODUCTION AND METHODOLOGY

Aims and rationale, Policy background, Conceptual framework and terminology - Theories of learning, Curriculum, Teacher education - Conceptual framework, Research questions - Overview of methodology and Searching.

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UNIT II THEMATIC OVERVIEW

Pedagogical practices are being used by teachers in formal and informal classrooms in developing countries - Curriculum, Teacher education.

UNIT III EVIDENCE ON THE EFFECTIVENESS OF PEDAGOGICAL PRACTICES

Methodology for the in depth stage: quality assessment of included studies - How can teacher education (curriculum and practicum) and the school curriculum and guidance materials best support effective pedagogy? - Theory of change - Strength and nature of the body of evidence for effective pedagogical practices - Pedagogic theory and pedagogical approaches - Teachers' attitudes and beliefs and Pedagogic strategies.

UNIT IV PROFESSIONAL DEVELOPMENT

Professional development: alignment with classroom practices and follow up support - Peer support - Support from the head teacher and the community - Curriculum and assessment - Barriers to learning: limited resources and large class sizes

UNIT V RESEARCH GAPS AND FUTURE DIRECTIONS

Research design – Contexts – Pedagogy - Teacher education - Curriculum and assessment - Dissemination and research impact.

TOTAL: 30 PERIODS

OUTCOMES

Students will be able to understand

- What pedagogical practices are being used by teachers informal and informal classrooms in developing countries?
- What is the evidence on the effectiveness of these pedagogical practices, in what conditions, and with what population of learners?
- How can teacher education (curriculum and practicum) and the school curriculum and guidance materials best support effective pedagogy?

Suggested reading

1. Ackers J, Hardman F (2001) Classroom interaction in Kenyan primary schools, Compare, 31(2): 245-261.
2. Agrawal M (2004) Curricular reform in schools: The importance of evaluation, Journal of Curriculum Studies, 36(3):361-379.
3. Akyeampong K (2003) Teacher training in Ghana-does it count? Multi-site teacher education research project (MUSTER) country report 1. London: DFID.
4. Akyeampong K, Lussier K, Pryor J, Westbrook J (2013) Improving teaching and learning of basic maths and reading in Africa: Does teacher preparation count? International Journal Educational Development, 33(3): 272–282.
5. Alexander RJ (2001) Culture and pedagogy: International comparisons in primary education. Oxford and Boston: Blackwell.
6. Chavan M (2003) Read India: Amass scale, rapid, 'learning to read' campaign.
7. www.pratham.org/images/resource%20working%20paper%202.pdf

AX5097

STRESS MANAGEMENT BY YOGA

L T P C
2 0 0 0

OBJECTIVES

- To achieve overall health of body and mind
- To overcome stress

UNIT I

Definitions of Eight parts of yoga. (Ashtanga)

UNIT II

Yam and Niyam - Do's and Don't's in life - i) Ahinsa, satya, astheya, bramhacharya and aparigraha, ii) Ahinsa, satya, astheya, bramhacharya and aparigraha.

UNIT III

Asan and Pranayam - Various yog poses and their benefits for mind & body - Regularization of breathing techniques and its effects-Types of pranayam

TOTAL: 30 PERIODS

OUTCOMES

Students will be able to

- Develop healthy mind in a healthy body thus improving social health also
- Improve efficiency

SUGGESTED READING

1. 'Yogic Asanas for Group Training-Part-I':Janardan Swami Yoga bhyasi Mandal, Nagpur
2. "Rajayoga or conquering the Internal Nature" by Swami Vivekananda, Advaita Ashrama (Publication Department), Kolkata

AX5098

PERSONALITY DEVELOPMENT THROUGH LIFE ENLIGHTENMENT SKILLS

**L T P C
2 0 0 0**

OBJECTIVES

- To learn to achieve the highest goal happily
- To become a person with stable mind, pleasing personality and determination
- To awaken wisdom in students

UNIT I

Neetisatakam-holistic development of personality - Verses- 19,20,21,22 (wisdom) - Verses- 29,31,32 (pride & heroism) – Verses- 26,28,63,65 (virtue) - Verses- 52,53,59 (dont's) - Verses- 71,73,75,78 (do's)

UNIT II

Approach to day to day work and duties - Shrimad Bhagwad Geeta: Chapter 2-Verses 41, 47,48 - Chapter 3-Verses 13, 21, 27, 35 Chapter 6-Verses 5,13,17,23, 35 - Chapter 18-Verses 45, 46, 48.

UNIT III

Statements of basic knowledge - Shrimad Bhagwad Geeta: Chapter2-Verses 56, 62, 68 Chapter 12 -Verses 13, 14, 15, 16,17, 18 - Personality of role model - shrimad bhagwad geeta - Chapter2-Verses 17, Chapter 3-Verses 36,37,42 - Chapter 4-Verses 18, 38,39 Chapter18 – Verses 37,38,63

TOTAL: 30 PERIODS

OUTCOMES

Students will be able to

- Study of Shrimad-Bhagwad-Geeta will help the student in developing his personality and achieve the highest goal in life
- The person who has studied Geeta will lead the nation and mankind to peace and prosperity
- Study of Neet is hatakam will help in developing versatile personality of students.

Suggested reading

1. Gopinath, Rashtriya Sanskrit Sansthanam P, Bhartrihari's Three Satakam, Niti-sringar-vairagya, New Delhi,2010
2. Swami Swarupananda , Srimad Bhagavad Gita, Advaita Ashram, Publication Department, Kolkata, 2016.

Attested


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