



GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Engineering

Subject Code 3724801

Semester – II

Subject Name: Urban Planning Techniques and Practices

Type of course: Core Subject - III

Prerequisite: Understanding on housing, social aspects, urbanization, traffic planning, building bylaws; use of software as CAD tools and word processors.

Rationale: To amalgamate planning techniques on the basis of qualitative & quantitative analysis of availed data for proper management & performance of urban planning.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
3	0	2	4	70	30	30	20	150

Content:

Sr. No.	Content	Total Hrs
1	Land use activities: Population forecasting methods. Analysis and prediction of important land use activities.	4
2	Spatial Standards UDPFI/ URDPFI and TCPO guidelines, GDCR of a city for residential, industrial, commercial and recreational areas, standards for urban amenities, Provisions of Town Planning Act, zoning, subdivision practice and metro region concept.	9
3	Analytical techniques Linear programming, threshold analysis.	7
4	Town development plan /town planning schemes Scope, contents and preparation. Land value and density pattern. A case study of development plan, preparation of Town Planning Schemes, activity areas, plan implementation – organizational legal and financial aspects, public participation in plan formulation and implementation, planning for urban poor, national renewal schemes and policies.	12
5	Urban decay and conservation Urban Decay causes and impacts, Urban renewal, Meaning, significance, scope and limitations, identification of renewal areas, renewal strategies. Urban conservation: Meaning, heritage, significance and techniques.	10
6	Concept of new towns Meaning, role and functions: Special planning and development considerations, scope and	6



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	limitations of new town development, Indian and British experience of planning and development of new towns.	
7	Global trends Concept of International cities, issues and planning approaches, ranking of various cities on different aspects.	6

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
15	20	20	20	15	10

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

1. Amiya Kumar Das, "Urban Planning In India"; Rawat Publishers, New Delhi 2007 (ISBN: 8131600947)
2. Margaret Roberts, "Town Planning Techniques", Hutchinson Educational Publication.
3. N. V. Modak And V.N. Ambdekar, "Town and Country Planning and Housing", Orient Longman Limited.
4. R.G. Gupta, "Planning and Development of Towns", New Delhi.
5. K. S. Ramegouda, "Urban and Regional Planning, Mysore University Publication.
6. Somik V. Lall (2009), "Urban Land Markets: Improving Land Management for Successful Urbanization", Springer.
7. John Randolph (2009), "Environmental Land use planning and Management", island Press.
8. Philip R. Berke (2009), "Urban Land use Planning", University of Illinois Press

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand and attempt practicing management principle.	34
CO-2	Understand process of analysis and predict future population by using different statistical methods	33
CO-3	Scopes, functions, limitations of new town development were made known, various policies and land development schemes pertaining to urban planning.	33



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List of Experiments/Studio: Application of planning principle and Land Management through preparation of T. P. Schemes. (Preferably a live ongoing case to be obtained from Urban Local Body/ Authority)

To develop skill of Land management Practice.

1. Concept of land management system
 2. Purpose and provision of town planning act
 3. Explore - Land management tools
 4. Understanding - Procedure of Town Planning Scheme
 5. Selection of study area: Locational Features (city, zonal & aerial features)
 6. Propose T. P. Scheme Alternatives
 7. Modification of T. P. Scheme proposal
 8. T. P. Scheme finalization
 9. Comparative Feature Of Alternatives
 10. Estimation
 11. Report Generation
- During the lab hours, subject experts from field shall be invited to provide students focusing on exposure to existing practices and difficulties and measures to overcome the same.
 - **End-semester internal evaluation**, it is advised to invite practicing officer of local authority or local municipal organization or consultant.

Major Equipment: Computers/ Laptop with higher configuration and internet, server. DVR system with camera and hard drive for traffic studies

List of Open Source Software/learning website:

- CAD Drafting tools; word processing tools, calculation sheets
- Google Earth
- Google SketchUp Pro
- ESRI City Engine (Transforms 2D GIS Data into 3D city models)
- Google Books on Urban Planning Techniques
(https://www.google.co.in/search?q=Urban+Planning+Techniques&btnG=Search+Books&tbo=1&gws_rd=ssl)