

# GUJARAT TECHNOLOGICAL UNIVERSITY

## CIVIL (TOWN & COUNTRY PLANNING) (48) URBAN PLANNING TECHNIQUES & PRACTICE

**SUBJECT CODE: 2724801**

**SEMESTER: II**

**Type of course:** Core Subject - IV

**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 C	Examination Marks						Total Marks
L	T	P		Theory Marks		Practical Marks				
			ESE (E)	PA (M)	ESE (V)		PA (I)			
					ESE	OEP	PA	RP		
3	2#	2	5	70	30	20	10	10	10	150

### Content:

Sr. No.	Content	Total Hrs	% weightage
<b>1</b>	<b>Land use activities</b> Population forecasting methods. Analysis and prediction of important land use activities.	<b>4</b>	<b>7</b>
<b>2</b>	<b>Spatial Standards</b> UDPF/ 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.	<b>9</b>	<b>16</b>
<b>3</b>	<b>Analytical techniques</b> Linear programming, threshold analysis.	<b>7</b>	<b>13</b>
<b>4</b>	<b>Town development plan /town planning schemes</b> 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.	<b>12</b>	<b>22</b>
<b>5</b>	<b>Urban decay and conservation</b> 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.	<b>10</b>	<b>18</b>
<b>6</b>	<b>Concept of new towns</b> Meaning, role and functions: Special planning and development	<b>6</b>	<b>12</b>

	considerations, scope and limitations of new town development, Indian and British experience of planning and development of new towns.		
7	<b>Global trends</b> Concept of International cities, issues and planning approaches, ranking of various cities on different aspects.	6	12

### 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. Rameganda, "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 Outcome:

After learning the course the students should be able to:

Understand and attempt practicing management principle. Detail Understanding on Urban Planning Techniques and Practice with various models of different States; the process of analysis and predict future population by using different statistical methods, Scopes, functions, limitations of new town development were made known, various policies and land development schemes pertaining to urban planning.

### List of Experiments/ Studio (Practical):

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.

### Assignment work (Tutorial):

1. Students shall refer the books and reference materials and prepare answers to the assignment problems including the topics of syllabus.

2. Students will prepare a “Graduate Report” of Innovative Technique and Practice and submit the same with presentation. A graduate report on specific topic is to be prepared in consultation with the faculty advisor and to be submitted in A4 size paper.
3. During tutorial hours, students shall be studying best practices of city planning individually, identify major decisions responsible by referring relevant documents and prepare brief report that shall be presented.

**Research Paper (RP):**

Each students shall study at least two research papers from the listed journals on GTU portal. Each paper shall be studied – students shall prepare brief report on paper and present the findings. The same shall be presented among all students and submit to university.

**Open ended problems (OEP):**

1. What is the best practice to delineate a region for an urban center? Support your answer with suitable example.
2. Which planning technique model is best suited for an urban area? Enlist major models and validate your answer.
3. Which factors lead to decay of an urban center? Enlist predominating factors and defend your answer with an example.
4. Why zoning is important? Which is the most suitable way to demarcate and arrange zones?
5. What are needs to develop new towns?

**Major Equipment:**

Computers/ Laptop with higher configuration and internet, server

**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&tbn=bks&tbo=1&gws\\_rd=ssl](https://www.google.co.in/search?q=Urban+Planning+Techniques&btnG=Search+Books&tbn=bks&tbo=1&gws_rd=ssl))

**Review Presentation (RP):** The concerned faculty member shall provide the list of peer reviewed Journals and Tier-I and Tier-II Conferences relating to the subject (or relating to the area of thesis for seminar) to the students in the beginning of the semester. The same list will be uploaded on GTU website during the first two weeks of the start of the semester. Every student or a group of students shall critically study 2 papers, integrate the details and make presentation in the last two weeks of the semester. The GTU marks entry portal will allow entry of marks only after uploading of the best 3 presentations. A unique id number will be generated only after uploading the presentations. Thereafter the entry of marks will be allowed. The best 3 presentations of each college will be uploaded on GTU website