

GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT

COURSE CURRICULUM COURSE TITLE: TOWN PLANNING (Code: 3345004)

Diploma Programme in which this course is offered	Semester in which offered
Architectural Assistantship	4 th Semester

1. RATIONALE

A properly planned city/town infrastructure helps in utilizing the land capability and its resources to its maximum. These structures include schools, hospitals, market, parks etc., Town residents seeks that all the facilities are in most nearby locations. The town planning includes all these things and suitable selection of land area which is most appropriate for the residential, good environment, location and connecting distance with the roads & highways.

The student must have the insight knowledge about city/town planning leading towards the development of a modern town. The course will provide a practical understanding of the basic planning of urban region and the built environment, and their applications and relationships to the planning and management of urban and regional environments and associated land use

2. COMPETENCY

The course content should be taught and curriculum should be implemented with the aim to develop required skills in the students so that they are able to acquire following competencies:

- **Design architectural projects with respect to the town planning rules and regulations.**

3. COURSE OUTCOMES:

The theory should be taught and practical should be carried out in such a manner that students are able to acquire required learning out comes in cognitive, psychomotor and affective domain to demonstrate following course outcomes.

- Appreciate Town Planning Schemes.
- Explain the tools of town planning
- Explain different components of town and their effect in town planning
- Describe the facts relating to the Industrial areas of a town
- Describe the aspects involved in a Development Plan
- Demonstrate different features of Traffic management
- Apply land-use regulation for planning issues

4. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
L	S/T	P		Theory Marks		Practical Marks		Total Marks
			C	ESE	PA	ESE	PA	
2	0	0	2	70	30	0	0	100

Legends: L-Lecture; S/T- Tutorial/Teacher guided theory Practice – Studio; P - Practical; C – Credit; ESE - End Semester Examination; PA - Progressive Assessment

5. DETAILED COURSE CONTENT

Unit	Major Learning Outcomes (Outcomes in cognitive domain)	Topics and Sub-topics
Unit – I Introduction	1a. Clarify the various aspects related to Town Planning 1b. Explain the tools of town planning.	1.1 Evolution, Objects, Economic Justification, Principles and Necessity of Town Planning 1.1.1 Origin and Growth of Towns. 1.1.2 Stages in Town Development 1.1.3 Forms of Planning 1.1.4 Site for an ideal town 1.2 Distribution of Land Uses 1.2.1 Land use Planning and Neighborhood Planning
Unit– II Planning of modern town	2a. Explain features in a modern town plan. 2b. Provide the various features of Zoning 2c. Develop awareness of Town Planning Schemes.	2.1 Features embodied in a modern town plan 2.2 Definition and concept of Zoning 2.2.1 Objects, Principles, Advantages and Importance of Zoning 2.2.2 Aspects of Zoning 2.3 Town Planning Schemes
Unit – III Town Components	3a. Explain various aspects of Housing 3b. Clarify various features of Open spaces. 3c. Describe the facts relating to the industrial areas of a town. 3d. Explain different aspects of Public buildings with emphasis on Town Center 3e. Illustrate the facets of Town periphery	3.1 Importance and Demand for Housing 3.1.1 Factors to be considered while selecting building site. 3.1.2 Aspects of designing residential areas. 3.1.3 Causes, Characteristics and effects of slums 3.2 Types of Recreation 3.2.1 Location of Urban Green Spaces & Green Belt and Classification of Parks 3.3 Classification and concentration of Industries 3.3.1 General requirement of typical Industry 3.3.2 Siting of Industry and Measures to control location of Industries 3.4 Factors to be examined while site selection of Public Buildings 3.4.1 Classification and Principles of Design of Public buildings 3.4.2 Classification of Town Centres

Unit	Major Learning Outcomes (Outcomes in cognitive domain)	Topics and Sub-topics
Unit –IV Development Plan	4a Describe the aspects involved in Development Plan 4b Demonstrate the Planning of Gandhinagar with the help of neat sketch. 4c Provide cases of town planning	4.1 Concepts, Objects and Necessity and Features of Development Plan 4.1.1 Data to be collected and drawings to be prepared 4.1.2 Stages of preparation of Development Plan. 4.2 Master Plan of Gandhinagar. 4.2.1 cases of town planning
Unit – V Urban Roads & Traffic Management	5a. Explain various aspects of Urban roads. 5b. Develop sketches for types of street systems. 5c. Demonstrate different features of Traffic management 5d. Illustrate categories of road junctions with sketches. 5e. Develop awareness about other transport systems of modern city/town	5.1 Objects and requirements of a good city road 5.1.1 Factors to be considered while designing town road 5.1.2 Classification of urban roads 5.1.3 Principles relating to road aesthetics 5.2 Types of street systems 5.2.1 Other type of roads – Through and Bypass roads, Outer and Inner ring roads, Expressways, Freeways. 5.3 Traffic management 5.3.1 Traffic Congestion, Control and Problems Principles to be observed in the design of Road Junctions 5.4 Categories of Road Junctions 5.5 Airport, Railways and Rapid Transit systems

6. SUGGESTED SPECIFICATION TABLE WITH HOURS (THEORY)

Unit No.	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total Marks
I	Introduction	06	12	04	00	16
II	Planning of modern town	04	08	04	00	12
III	Town Components	08	15	05	00	20
IV	Development Plan	04	02	02	04	08
V	Urban Roads and Traffic Management	06	04	02	08	14
	Total Hrs	28	41	17	12	70

Legends: R = Remember; U = Understand; A = Apply and above levels (Bloom's Revised 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

7. SUGGESTED LIST OF EXERCISES/PRACTICALS

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8. SUGGESTED LIST OF STUDENT ACTIVITIES

Students will carry out activities like: presentation on the works of topics relevant in the area of town planning by way of library based/internet based mini projects, etc. These could be individual or in a group.

- i. Undertake a visit of planned and unplanned Town/City
- ii. Collect master plan of city/town and study for future planning
- iii. Prepare a master plan of a proposed town

9. SPECIAL INSTRUCTIONAL STRATEGIES (If any)

Arrange visit to Corporation / Municipality office for discussions related to plans of corporation to improve living conditions in the town including planning for modern roads & transport systems.

10. SUGGESTED LEARNING RESOURCES

A. List of Books

Sr. No.	Title of Book/Journals	Author	Publication
1.	Town Planning	S.C. Rangwala	Charotar Publications
2.	Radiant City	Le Corbusier	Orion Press
3.	The Urban Pattern - City Planning & Design	Arthur B. Gallion, Simon Eisner	John Wiley & Sons
4.	Town Planning	G.K. Hiraskar	Dhanpat Rai
5.	Text book of town planning	A. Bandopadhyay	Books and Allied, Calcutta

B. List of Major Equipment/ Instrument

- drawing tools/drawing software such as AUTOCAD
- Town planning act

C. List of Software/Learning Websites

- www.spa.ac.in
- www.townplanning.gujarat.gov.in
- www.municipalcorporationahmedabad.com/

11. COURSE CURRICULUM DEVELOPMENT COMMITTEE

Faculty Members from Polytechnics

- **Prof. J.S. Nair**, Lecturer in Architecture, Govt. Polytechnic for Girls, Ahmedabad
- **Prof. S.J. Vaghasia**, Lecturer in Architecture, Govt. Polytechnic for Girls, Surat
- **Prof. A.R. Rathod**, Lecturer in Architecture, Govt. Girls Polytechnic, Ahmedabad

Co-ordinator and Faculty Members from NITTTR Bhopal

- **Prof J. P. Tegar**, Professor and Head, Dept. of Civil and Environmental Engineering
- **Prof. M. C. Paliwal**, Associate Professor, Dept. of Civil and Environmental Engineering