GUJARAT TECHNOLOGICAL UNIVERSITY
Planning and Design Lab-IV (Transportation Planning)
SUBJECT CODE: 1045507
B.PLAN 4th SEMESTER

Prerequisite: B.Plan 3rd Semester

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P	C	Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA(I)	
0	0	11	11	-	-	40	60	100

L- Lectures; T- Tutorial/Teacher Guided Student Activity/Field work; P- Practical; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment.

Content:

INTRODUCTION

One of the significant components of this educational program for planners is building awareness of design issues related to planning of small areas within a city. When we are dealing with areas within a city it is more than necessary to understand the correlation of the characteristics which make cities, who lives there, what is their occupation, where do they go for education & health facilities, how do they move etc. Thus every square meter of the city area is defined/used for a particular activity, called the landuse. The planning of urban land use, i.e. the planning of areas of land that denote spatial differences and similarities in certain types of usage (or mix of uses) within towns and cities, is managed and planned by city authorities who apply enablement and intervention measures targeted at different types of activities the land areas accommodate, attract and generate. Besides the landuse pattern, importance of transport network, public transport and non-motorised traffic are also important aspects that the students must learn to provide for in the physical plan. Most of the time land use is looked at as a possible explanatory factor of a particular transportation behaviour. This studio exercise has been structured accordingly to give the student sufficient exposure to these aspects.

Studio Objectives

The studio elaborates the elements of urban landuse and transport planning and its impacts. There are landuse master plans that are prepared in the form of Development Plans and Town Planning schemes. Apart from road network, the public transport and Mass transit infrastructure is planned and proposed separately. Landuse determines the use of land, while density determines the quantum of population. Transport is a medium to move people and/or goods connecting their origins and destinations. Landuse plan determines these origins and destinations. Thus, it is important that the landuse, density and transport are integrated due to their inter-relationship. The focus of the studio would be the principles, tools and impacts of the landuse-transport integration.

The understanding of city landuse plans and overall transport network will create a base for the studio. Based on the scope and nature of integration, study areas would be identified. Local area development plans would be developed in line with the vision. The studio will deal with the tools, methods and policies that are in practice. The prevalent guidelines and standards including Development Plans, TP schemes, Building control regulations, transport policy etc. would be referred and followed. The studio may also allow the scope for innovations and generate new ideas in terms of proposed strategies for effective and appropriate landuse-transport integration.

The main objectives of the studio would be:

- Understanding of functional and geometric classifications of urban and rural roads and their cross-sectional elements
- Understanding how landuse effect traffic and how transport systems influence landuse changes
- Learn Methods, surveys, analysis, presentation of transport and landuse data including Road geometrics and road components, traffic volume, origin destination, spot speed, speed and delay, FSI utilized, density, parking and pedestrian movements
- Preparation of transport & landuse integration strategies showing circulation plan, landuse modification, redevelopment strategies, density variation, parking and NMT

Deliverables

The students will be expected to prepare drawings/map as required for the study and as guided by the faculty.

The final submission will be in the form of presentation sheets, powerpoint presentation and report.

ACTIVE LEARNING ASSIGNMENTS: Preparation of power-point slides, which include videos, animations, pictures, graphics for better understanding theory and practical work. The power-point slides should be put up on the web-site of the College/ Institute, along with the names of the students of the group, the name of the faculty, Department and College on the first slide. The best three works should submit to GTU.