

Name of Course Area Planning Studio (MPIS 101)
Programme & Sem: **M Plan Integrated semester**
Course Duration: August 2024-December 2024

Aim of the studio

The studio aims to provide students with a comprehensive understanding of physical planning exercises and equip them with the necessary skills to navigate the intricate landscape of urban development. Through a series of engaging exercises and studies, students will embark on a journey to explore the multifaceted aspects of urban planning, from the micro-level intricacies of village dynamics to the broader context of urban scale wide socio-economic and political factors.

Objective of the Studio:

The objectives of the studio exercise are to

- Orient the students towards the physical planning exercises
- Enable the students to understand the various stages in physical planning exercises
- Enable the students to understand the socio-economic and political context along with the land use dynamics of the study area concerning the village and city.

Brief of the Studio Program

The studio session starts with basic exercises designed to introduce students to various aspects of urban planning such as study of a town, mapping techniques, preparation of survey questionnaire and so on . These exercises help them become acquainted with the tasks involved in planning for towns, villages and communities. As the session progresses, the focus shifts towards developing the critical skills required by spatial planners. These skills involve the ability to thoroughly evaluate the condition of a settlement and create effective plans to address its needs.

To facilitate this skill development, students engage in area appreciation studies. These studies delve into different levels of spatial organization, ranging from the village and neighborhood scales to larger sub-city areas. By examining these different scales, students gain insight into various aspects of settlements, including their socioeconomic dynamics, cultural characteristics, spatial layout, and environmental considerations. This comprehensive understanding enables them to approach planning tasks with a holistic perspective, taking into account the diverse factors that influence the development and well-being of communities.

The studio includes five micro exercises and three major exercises:

Micro exercises – 2 weeks

Exercise 1 – Study of a town

Choose and identify a town of historic, social and cultural significance. Study and document the following topics through various secondary sources.

- Regional Setting and its importance in planning
- Historicity – Ethnic background, Cultural heritage
- Demographic Profile
- Land use, Transportation and Infrastructure
- Urban morphology
- Role of Nodal agencies

Expected outcome

Students are expected to have a brief understanding of study of towns and various parameters which shapes the town on various parameters.

Suggested Reading

- URDPFI Guidelines
- JNNURM Toolkit
- AMRUT Toolkit

Net Case Studies

- [FP Exercises | CEPT - Portfolio](#)

Students will understand Urban Morphology, Determinants of Urban Form Visible characteristics, of an urban area , Precint studies,study of routes

- [A Journey from Commercial to a Residential Neighbourhood | CEPT - Portfolio](#)

Students will understand Overview of the city, Urban Analysis, Builtform Matrix and urban Transformation

Exercise 2 – Vocabulary Building in Urban Planning

To enable the student to use appropriate vocabulary that would help them in developing the planning exercises

Suggested Reading

- A Reader on Planning Theory – Faludi
- Urban Pattern – Gallion
- URDPFI Guidelines

Net Case Studies

[15 minute neighbourhood lens - Annanagar East, Chennai | CEPT - Portfolio](#)

Students will understand Figure ground, Urban Form and Density, Rough and Course Grain, Texture , Network connectivity , Public Realm

Exercise 3 – Case Study of a Master Plan

To brief the Master Plan of any selected town and explain about structuring of the Master Plan

Suggested Reading

Master plan reports of CMDA,HUDA,MMRDA

Exercise 4 Mapping exercise

To introduce the students different type of mapping techniques, their relevance and applicability in Urban planning This will be done as a studio tutorial

Exercise 5 – Survey techniques

To introduce the students different type of Survey techniques, their relevance and applicability in Urban planning .This will be done as a studio tutorial

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Major exercises

1. Area development plan

This exercise aims to make the students understand the characteristics of an area (sub-city level) in the context of its land use, demography, physical and social infrastructure, transportation, environment, socio-economic conditions, and governance. It included the preparation of area profiles and studying the impact of land use, and economic and socio-cultural activities on the physical environment of the area.

Scope and Aim of the project

The scope is to study understand and establish the Urban Planning aspects that has a strong history associated with it and that shows some dynamics in its growth over a period of time and has potentials in terms of its urban form, pattern, growth and network . Issues are to be addressed with reference to regional growth, physical planning, transportation issues , urban form, function, spatial layout and related aspects.

The specific typology, patterns of growth, urban geometry and the morphology are the prime areas of concern along with application of transformative place making as key tool to come up with solutions at various scales.

The study focuses on the following aspects

- Planning history of the region
- Histogenesis, regional setting, chronology of events – layers of history within the study region
- Land use and its associated attributes
- Spatial layout, permeability , geometry of streets & intersection
- Celebration of spaces and festive events
- A brief study of ephemeral urbanism – that includes but not limited to wayside shrines, anointed trees, small urban spaces for social interaction (more particularly in slums)
- Pedestrianization and human scale, ped-shed analysis
- Human activities and interventions made over a period of time
- Built environment VS Natural environment – observations and inferences
- Temporal aspects

Stages of study

Stage 1

A. Gathering of Information & situating the study area in its regional context

It includes understanding the chronology, morphology, structure, organization, and pattern of urban areas. Basic information is gathered on such items as land use, population, transportation, natural systems, and topography.

B. Visual Survey and Reconnaissance Surveys

CPG

It is an examination of the urban fabric, physical form, appearance, and composition of the study area. To conduct a visual survey, one must have a basic idea of the elements of urban form. Next stage could be examining the city and describe it in terms of its Urban Planning vocabulary.

C. Temporality and Activity mapping

This part of the study captures the dynamics of the study area in terms of its people, events and activities which is generally seen as organized chaos at particular time intervals (daily/weekly/monthly/yearly). While studying the fishing community it becomes essential to neatly choreograph the physical form, their routine and daily activities, the place of fishing trade and so on. The dynamism is captured through sketches, activity mapping, photographs & videography(if taking Machilipatnam).

D. Functional Analysis

The functional analysis examines the relationship of activities among the various land uses and the way that relate to its activity, functioning and effective usage. This study builds on the work of the land-use planning however, this urban design has to be carried into three dimensions.

Stage 2

a. Synthesis

In this phase, the data gathered and the analysis of the problem must be translated into proposal for action. The first component of synthesis phase is the evolution of concepts that address the problem. Concepts are followed by the development of schematic design proposals. These proposals are more specific in nature.

b. Areas of threats and potentials

It includes a detailed analysis that identifies the level of human intervention to be made either to retain or transform the original character.

Stage 3

Planning level Solutions

Solutions occurs at many levels; ranging from policy level guidelines meeting technical demands to the ability to gain public acceptance. After the solutions are complete, it is essential that they be evaluated in the light of the original problem or issue they were intended to address. One of the more complicated tasks associated with evaluation is determining what criteria should be employed. There are few questions to be considered

- (1) How well the solution(s) fit the problem in today's context and
- (2) Is the string of continuity seen or maintained
- (3) Is the livelihood of the people addressed
- (4) How readily the proposals can be implemented.
- (5) Whether these solutions could made sustainable.

Case Area – Mangalagiri

Mangalagiri is a major Sub-urban of Vijayawada in Guntur district of Indian state of Andhra Pradesh. The town is a part of Mangalagiri Tadepalli Municipal Corporation and part of Tenali revenue division. It and a part of Andhra Pradesh Capital Region. It is situated on National Highway 16 between Vijayawada and Guntur. Mangalagiri translates to The Auspicious Hill (Mangala = Auspicious, Giri = Hill) in the local language. It was derived from the name Totadri. During Vijayanagara Kingdom rule, it was also known as Mangala Nilayam

Or

Case Area – Machilipatnam

Machilipatnam a city in Krishna district of the Indian state of Andhra Pradesh. It is a municipal corporation and the administrative headquarters of Krishna district. It is also the mandal headquarters of Machilipatnam mandal in Machilipatnam revenue division of the district. The ancient port town served as the settlement of European traders from the 16th century, and it was a major trading port for the Portuguese, British, Dutch and French in the 17th century.

The class was divided into three groups of 17-19 students. An area appraisal would be made which includes documenting, benchmarking, and analyzing the land use, demography, physical and social infrastructure, transportation, environment, socio-economic conditions, and governance of these areas.

2. Village Planning

This exercise aims at learning how villages/rural areas are different in physical and social structure from urban areas. Students are expected to understand and appreciate how development impacts the area and the people and the need to balance development with livelihood. Students need to understand the need for a balanced development with the incorporation of elements like sustainability, livelihood, environmental protection, inclusive growth, and institutional engagement.

Teleprollu gram panchayat of Vijayawada

Expected outcome

the students to come out with broad recommendations/proposals for a few selected sectors.

Suggested reading

RADPFI guidelines

Critical Evaluation of Ancient Indian Town Planning Principles used in Neighborhood Design: A Case Example of Vidyadhar Nagar

3. Neighbourhood/Site planning

This exercise aims preparation of neighbourhood/site plan considering different user groups. This involved the preparation of residential/site plans in areas where new developments are coming up. The students were given a problem statement to plan Greenfield for a population of a minimum of 3000 with a density of 200-250 persons/hectare adhering to the local bylaws. The students have been divided into groups of three who then identified sites of size 10-12 Hectares from in and around Vijayawada. The exercise involved site analysis, site zoning, area calculations, land use plan, plotting and building prints, and infrastructure demand calculations and layouts.

Students to take topics (but not limited to) in the following subsystems

- Demographic study
- Landuse and transportation
- Physical and social infrastructure
- Housing
- Tourism and heritage
- Industry
- Commerce and economy

Stages of study

1. Collection of primary and secondary data

Primary data is the one that is observed or collected directly from first-hand experience. Published data and the data collected in the past or other parties is called secondary data

Primary data can be collected in a number of ways. However, the most common techniques are self-administered surveys, interviews, field observation, and experiments. Primary data collection is quite expensive and time consuming compared to secondary data collection. Notwithstanding, primary data collection may be the only suitable method for some types of research.

2. Demographic profile

The population studies is the generating element of the initial phases of urban studies as it is the directing element and reason for being of the whole process. It is the element through which and for which the system works. The analysis of population study issues must lead to specific conclusions and the formulation of scenarios with specific demographic forecast methods. Knowing the probable development of population by various characteristics is necessary for substantiating economic and social development programs

Demographic studies to include

- population, age-sex ratio, education, employment, literacy rate
- socio-economic profile, migration pattern,

3. Physiography and history

Uk's

Every city is built on a piece of land and has a history associated with it . The form of this land and its features are the foremost determinants of a city's form. The prominent features of the landscape should be carefully noted.

- Land form and nature
- Climatic aspects
- Vegetation
- Terrain
- Water bodies
- Open spaces
- History/chronology of events

4. Land use

Land use is the function or functions that humans apply to the land available to them. The study of land use is the study of how the land is managed, including how the natural world is adapted to human needs. Land use is also related to the study of human trends and movements. There are different types of land uses that includes residential , commercial , institutional , industrial and recreational

- existing land use, compatible land use, land use conflicts, tentative directions of growth as per the master plan (at the level of the city).
- proposed landuse

5. Infrastructure :

The definition of infrastructure is the basic facilities and installations that help a government or community run, including roads, schools, phone lines, sewage treatment plants and power generation. Infrastructure is the term for the basic physical systems of a business or nation — transportation, communication, sewage, water and electric systems are all examples of infrastructure. These systems tend to be high-cost investments and are vital to a country's economic development and prosperity.

- physical infrastructure – the basic underlying foundation for any community to operate , work and function
 - water supply – regular / intermittent / sources / issues
 - sewage disposal – methods / mechanisms / issues
 - solid waste management– methods / mechanisms / issues
 - storm water drain
 - electricity
 - utility lines and so on
- social infrastructure - institutions, health facilities, community facilities, utilities & services.)

6. Traffic and Transportation

Routes of movement are the prime determinant of the urban form .circulation and utility lines are the life blood arteries of the city . Sustainability of the towns and cities lies in the successful traffic and transportation solutions. The cause of the present issues with urban management really lies with the mismanagement of land use – transportation conflicts and mismanagement of transportation planning . Thus the transportation issue has to be addressed with the relevant parameters

- Routes of movement
- Transit Oriented Development
- Traffic pattern

- Modal split
- Traffic bottlenecks
- Pedestrian areas

7. **Housing:**

Urban housing may include the housing typologies by various public bodies, independent houses, slums and squatters , traditional and vernacular houses and private apartments

- **existing housing stock, housing characters(traditional if any),housing schemes(hb,seb,cpwd,publicquarters,housing for the urban poor)**

8. **Understanding the form and pattern of the urban space**

Urban pattern is the geometry , regular or irregular, formed by routes, open spaces and the built form. Urban areas have distinct patterns and are the outcome of the street layouts. The mix of open spaces and the built up space constitute still another pattern .

- Form and structure in three dimensions
- Density and character of the buildings
- Spacing of buildings
- Paving, the signage and night lighting
- The existing physical patterns
- Focal points , views, vistas

Suggested reading

- Best practices, successful models in urban planning
- URDPFI guidelines
- Form based codes of India

Workshop on **Form Based Code** to be conducted in the **third week of October** which would enable the students to have a hands on experience in making the Neighbourhood planning based on **Form Based Code** .

Proposed Studio Modules

Broadly the studio shall elaborate into six cognitive modules to delve deeper into the above aspects and generate understanding in students of processes and steps that are necessary in area development planning.

Module	Description (Tentative)*	Timeline
Module I	<p>Exercise 1 - Observational and Theoretical understanding This exercise involves studying a town of historic, social, and cultural significance through various secondary sources. The study focuses on the town's regional setting and its importance in planning, background, demographic profile, land use, transportation, infrastructure, urban morphology, etc. The goal is to provide students with an understanding of how these various parameters shape the town. Key references include the URDPFI Guidelines, JNNURM Toolkit, and AMRUT Toolkit. The outcome is a comprehensive overview of the factors influencing the town's planning and development.</p>	<p>Aug 16th to August 19th 2024</p> <p>Weightage 5%</p>
Module II	<p>Exercise 2 – Vocabulary Building in Urban Planning Students will learn appropriate urban planning vocabulary to aid in their planning exercises. Suggested readings include "A Reader on Planning Theory" by Faludi, "Urban Pattern" by Gallion, and URDPFI Guidelines.</p> <p>Exercise 3 – Case Study of a Master Plan Students will brief a Master Plan of a selected town and explain its structure. Suggested readings are master plan reports from CMDA, HUDA, and MMRDA.</p> <p>Exercise 4 – Mapping Exercise Students will be introduced to various mapping techniques and their relevance in urban planning through studio tutorials. This exercise focuses on the applicability of different mapping methods.</p> <p>Exercise 5 – Survey Techniques Students will learn different survey techniques and their relevance in urban planning through studio tutorials. The expected outcome is the preparation of sample survey questionnaires.</p>	<p>Aug 20th to Aug 29th 2024</p> <p>Weightage 5%</p>
Module III	<p>Major Exercisés 1.Area Development Planning In this exercise, students will understand the characteristics of a sub-city area, focusing on land use, demography, infrastructure, transportation, environment, socio-economic conditions, and governance. They will prepare detailed area profiles, analyze the impact of land use and activities, and identify key issues and opportunities. Students will engage in mapping exercises and propose development strategies to enhance sustainability and</p>	<p>Sept 2nd to Sept 30th 2024</p> <p>Weightage 30%</p>

	liability. This module provides practical experience in comprehensive area development planning.	
Module IV	<p>2. Village Planning</p> <p>In this exercise, the dynamics of a village will be examined, focusing on land use patterns, local infrastructure, population characteristics, environmental factors, and socio-economic conditions. Comprehensive village profiles will be created, and the impact of various activities on the environment will be evaluated. Mapping techniques will be employed to visually represent village features and infrastructure.</p> <p>Strategies will be formulated to address development challenges and enhance the village's overall well-being. Practical insights into rural planning and sustainable development will be provided through this module.</p>	<p>Oct 1st to Oct 18th 2024</p> <p>Weightage 30%</p>
Module V	<p>3. Neighbourhood/Site planning</p> <p>In this exercise, neighbourhood or site plans will be prepared for new developments, focusing on a Greenfield project for a population of 3,000 with a density of 200-250 persons per hectare.</p> <p>Students will work in groups to select sites of 10-12 hectares near Vijayawada and conduct site analysis, zoning, area calculations, land use planning, and infrastructure layout. Practical skills in site planning and development will be developed through this exercise.</p>	<p>Oct 21st to Nov 22nd 2024</p> <p>Weightage 25%</p> <p>2 Day Workshop</p>
Module VI	<p>Internal Jury</p> <p>Revision and Finalization of the project report</p>	<p>Nov 22nd to Dec 2nd 2024</p> <p>Weightage 5%</p>

In each module the students shall have the freedom to re-orient the overall studio sub-theme or analytical strategy or addressing of any particular issues of the urban area as they deem fit, upon discussion with the Studio Faculty.

Assessments shall be on the basis of reviews to be held every week/alternative week (at intermediate stages besides the main assessment) by prior notice and the marks shall be compiled at each stage of Assessment.

Mode of Teaching and Evaluation

- One-to-one and group-level discussions, as required;
- Classroom presentation;
- Guest/Expert lectures; Audio-visual materials;
- Field Studies; Surveys and on-site Stakeholder Consultations, Workshops etc.
- Continuous and stage-wise assessment of work.