

ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ



**University of Mysore**  
(Estd.1916)

**M.Tech in URBAN AND  
REGIONAL PLANNING**

**Choice Based  
Credit System  
(CBCS)**



**UNIVERSITY OF MYSORE**  
**School of Planning and Architecture**  
**(Urban and Regional Planning Wing)**  
**Manasagangotri, Mysuru-570006**

**Regulations and Syllabus**  
**Master of Technology in Urban and Regional Planning**  
**(Two-year semester scheme)**

**Under**  
**Choice Based Credit System (CBCS)**

  
**CHAIRMAN**  
**Board of Studies**  
**School of Planning and Architecture**  
**University of Mysore, Manasagangotri**  
**Mysuru-570006, INDIA**

UNIVERSITY OF MYSORE  
GUIDELINES AND REGULATIONS LEADING TO  
MASTER OF TECHNOLOGY IN URBAN AND REGIONAL PLANNING  
(TWO-YEAR SEMESTER SCHEME UNDER CBCS)

***Programme Details***

<b>Name of the Department</b>	: School of Planning and Architecture
<b>Subject</b>	: Urban and Regional Planning
<b>Faculty</b>	: Faculty of Science and Technology
<b>Name of the Programme</b>	: Master of Technology in Urban and Regional Planning
<b>Duration of the Course</b>	: 2 years divided into 4 semesters

***Programme Outcomes***

**Programme Outcome:** By the end of two years of Programme, the candidates will be able to

- a) Equip with critical knowledge of basic theories, techniques, and design concepts urban and regional planning.
- b) Apply techniques of planning in the area of urban planning, development and management, regional planning, housing, transport planning, infrastructure planning, environmental planning and other multi-disciplines.
- c) Build the basic skills that would help students later in their careers to serve in various professional capacities in planning, development and management agencies in the public sector as well as in private consultancy organizations.
- d) assume their assigned professional roles as members of multi-disciplinary teams which invokes survey, analysis and plan making

**Programme Specific Outcomes**

1. Students will acquire a solid base of knowledge in the principles and practices of learning, including urban spatial structure, local public finance, economics of development, infrastructure provision, and globalization.
2. Students will develop the skills necessary for the effective practice of planning, including its purpose, meaning and history; methods that envision future change; elements of plans; adoption, administration, and implementation of plans; speaking for the disadvantaged; laws and policies of environmental planning.

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3. Students will develop the values necessary for the effective practice of planning, including problem-solving skills; research skills; written, graphical, and oral skills; computational skills; collaboration with peers; meeting professional standards; forecasting and scenarios; implementation of plans; working with diverse communities.
4. Students will learn the values and ethical standards affecting the practice of planning, including the values of justice, equity, fairness, efficiency, order, and beauty; the values of fair representation and equal opportunity; and respecting complex legacies.
5. Be acquainted with the theoretical foundations and present developments within urban and regional planning, architecture and urban design as well as environmental sciences.
6. Have a sound knowledge on processes that determine urban change and regional development, the actors that are involved in these processes, and the aesthetical, social, economic, institutional and environmental determinants that contribute to sustainable development
7. Have a deep understanding of the tools and methods that can be applied to analyse the current status of cities and regions, and the prerequisites for future change.
8. Comprehend the relation between theory and practice in planning and urban design, and the connections to other disciplines involved in urban and regional development on the local, regional and global level.
9. Be able to assess and handle complexities of urban development in a local and regional perspective and relate them to their social, economic, environmental and political context.
10. Be able to carry out advanced studies on contemporary problems, opportunities and future wants and needs, and by that contribute to the development of the field of knowledge.
11. Be able to apply the fore mentioned knowledge and skills in design, analysis and synthesis in urban development planning practice.
12. Be able to make effective oral and written presentations of complex tasks in urban design, planning and environmental issues.
13. Be able to convey own results and others viewpoints in a coherent and qualitative way through drawings, sketches, essays and oral presentations.
14. Be able to use modern communication techniques and tools to illustrate and visualise plans, concepts and strategies. Be able to organise and lead multi-disciplinary groups with experts and contribute to the outcome of the working task.

**Programme Pedagogy:**

- i. Lecture, Interaction, Presentations and Assignments of tutorial
- ii. Participatory knowledge building through case study review and Analysis Continuous internal assessment and external examination
- iii. Field Studies for Practical Gaining of Knowledge

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- iv. Building working knowledge through internships
- v. Project work of individual and group works for team building and project preparation Thesis work of individual contribution project work

**SCHOOL OF PLANNING AND ARCHITECTURE**  
**M. Tech in Urban and Regional Planning (M. Tech. in URP)**

**Semester I**

Sl. No	Paper Code	Title of the Paper	HC/SC/OE	L	T	P	C
1	86701	Human Settlements: Planning Thoughts and Philosophy	HC	3	1	0	4
2	86702	Demography and Statistical Methods		3	1	0	4
3	86703	Physical Planning: Principles and Techniques		3	1	0	4
4	86704	Foundation Course in Networks and Construction Technology (for Social Science background students)		3	1	0	4
5	86705	Foundation course in Social Sciences (for Architecture and Engineering Background students)		3	1	0	
6		Planning Studio-I- Micro Planning		0	0	8	8

**SEMESTER II**

Sl. No	Code	Title of the Paper	L	T	P	C
1	86721	Regional Planning and Development	3	1	0	4
2	86722	Ecology and Environmental Aspects of Planning	3	1	0	4
3	86723	Habitat and Housing	3	1	0	4
4	86724	Traffic and Transportation Planning	3	1	0	4
5		Planning and Design Studio-II Preparation of a Master Plan for an Urban Area	0	0	8	8

**SEMESTER III**

Sl. no	Paper Code	Title of the Paper	L	T	P	C
1	86741	Project Formulation and Evaluation Techniques	3	1	0	4
2	86742	Planning Legislation, Governance and Management	3	1	0	4
3	86743	Computer applications, Information Technology and GIS	3	1	0	4
4	86744	Urban Development and Poverty Alleviation	3	1	0	4
5	86746	Real Estate Development and Urban Economics	3	1	0	4

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6	86747	Planning for Disaster Management	3	1	0	4
7		Internship			2	2
8		Planning –III Preparation of District Development Plan	0	0	8	8

#### SEMESTER IV

Sl. No	Paper Code	Title of the Paper	L	T	P	C
1	86761	City and Metropolitan Planning	3	1	0	4
3	86762	Urban Design and Landscape Architecture	3	1	0	4
4	86763	Village Planning and Rural Development	3	1	0	4
5		Planning Thesis	0	0	16	16

#### FIRST SEMESTER

##### HARD CORE

#### Course-I: HUMAN SETTLEMENTS; PLANNING THOUGHTS AND PHILOSOPHY

##### Course outcome

##### At the end of the course the students will be able to

- 1) Define the evolution of human settlements
- 2) Elucidate the Planning philosophy and thoughts of Early and modern city planning
- 3) Explain the City planning in systems in pre and post- industrial periods
- 4) Present the case studies of New towns India and abroad

##### Pedagogy

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning Participatory Exercises and Activities for knowledge building Case studies, review and analysis Continuous internal assessment and external examination

#### COURSE CONTENT

##### Lecture

Early human settlements – their evolution, form and structure.  
 Changing pattern and form of human settlements - Socio-cultural, political, economic, physical and technological determinants.  
 River Valley civilizations – Nile, Indus, Tigris and Euphrates - Historic cities and city planning principles.  
 Greeks and Roman Civilization – their city planning principles. Medieval Towns in Europe City Planning during Renaissance and pre-industrial periods.

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Impact of industrial revolution on city planning.  
Human Settlements by C.A. Doxiadis

### **Tutorial**

Planning philosophy and thoughts by Patrick Geddes, Le Corbusier and Ebenezer Howard. Danial Burnham's city beautiful and its movements.  
Study of New Towns - New Delhi, Chandigarh , Brasilia and Canberra.  
Concept of New Age Cities and Cyber Cities and Cyber City Design

### **References**

1. History of Urban Form: Before the Industrial Revolution by A. E. J. Morris
2. Town Design by Frederick Gibbard
3. The Garden City: past, present and future by Ed. Stephen V. Ward and E. & FN Spon.
4. David Adams: Urban Planning and Development process, UCL Press London 1994
5. Stein Jay M: Classic Readings in urban planning: An introduction, Mcgraw Hill, New York
6. C.A. Doxiades: Action for Human Settlements, Athen's, Centre of Ekistics, 1976.
7. City Beautiful Movement by William H. Wilson, The John Hopkins, University Press, Baltimore and London, 1989.
8. Arthur Kohn: History Builds the Towns, Lund Humphris, London 1953

Arthur B. Gallion: Urban Pattern

9. Lewis Mumford: Culture of Cities,
10. P. Geddes: Cities in Evolution, Mcgraw Hill,
11. Dutta: Ancient Town Planning in India.

## **COURSE: II: DEMOGRAPHY AND STATISTICAL METHODS**

### **Course outcome**

At the end of the course the students are expected

- to obtain the skills of understanding, describing and illustrating the following aspects:
- Understanding the sources of Demographic data for planning and population structure and characteristics.
- Describe the various measures of birth and death rates, population policy and population projections.
- Illustrate the census operation, construction and analysis of life table and migration analysis and its impact on urban growth.
- Understand the concept of statistics and its applications for interpreting urban and regional planning data and describe that various measures of central tendency, dispersion, correlation, regression and sample survey techniques.

### **Pedagogy**

Lecture, Interaction, Presentations and Assignments of tutorial  
Participatory knowledge building through questionnaire survey  
methods Data analysis  
Case study review  
Continuous internal assessment and external examination

## **COURSE CONTENT**

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## **PART A: DEMOGRAPHY**

### **Lecture**

Sources of Demographic data for planning- Population structure and Characteristics such as age, sex, occupation, educational attainment etc. Birth and Death rates. Population policies. Methods of population projections.

Migration and Migration analysis, classification and factors influencing migration. Migration types and its impact on Urban Growth and Urbanization.

### **Tutorials**

Population Census in India- Census Operation- Census Questionnaires and Schedules. Life Tables - Construction and analysis. Migration and its implications in spatial planning.

## **PART- B: STATISTICAL METHODS**

### **Lecture**

Statistics as a tool to analyze and interpret data related to urban and regional planning. Measures of central tendency, measures of dispersion- standard deviation.

Chi-square Test, simple linear regression and correlation.

### **Tutorials**

Types of primary surveys, Design of planning questionnaires, sample surveys and sampling methods.

Overview of SPSS (Statistical Package for Social Science).

### **References**

1. Donald J. Bogue. *Principles of Demography*. John Wiley & Sons Inc. 1969.
2. Davis. H Craig: *Demographic projects techniques for regions and smaller areas*. A Premier, UBC press ,Vancouver. DC 1995
3. United Nations: ` Methods for projection of urban and rural population. Manual and Methods of estimating population, UN New York, 1974.
4. Bhende, A., Kanitkar, T., 2003. *Principles of Population Studies*. Bombay: Himalaya Publishing House.

## **COURSE-III: PHYSICAL PLANNING: PRINCIPLES AND TECHNIQUES**

### **Course outcome**

By learning the course Students will be able to :

- Plan and design spaces for the requirement of people and function of both rural and urban settlements by carrying a critical analysis on socio-economic data for synchronising over the ground spaces in relation to the spatial charecteristic analysis.
- acquire in-depth knowledge of standardising space by understanding course content on FAR, FSI, coverage, density analysis to accommodate population and design infrastructure and required service and utilities for them over an optimum space by understanding design techniques of space standards.
- appraise of planning principles and techniques in the course content can give confidence for efficiently formulating zoning regulation and building bylaw in various contexts as the planning

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processes are well defined for neighbourhood plan, master plan by using norms, guidelines and new approaches.

- understand the human settlement structures in both rural and urban categories in terms of land use proportions and distribution forms and also the subject equip them to have knowledge of planning and design human settlements under both local and global contexts.

#### **Pedagogy**

- Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial
- Interactive Question and Answer Session and Peer Group learning
- Participatory Exercises and Activities for knowledge building
- Case studies, review and analysis
- Continuous internal assessment and external examination

#### **COURSE CONTENT**

##### **Lecture**

Basic Principles, aims and objectives of Physical planning,  
Planning as an interdisciplinary study; Interrelationship between physical and socio-economic planning.  
Space standards, *Normative Standards, Performance Standards*: Urban Development Plan Formulation and Implementation (UDPFI): Planning norms and standards.  
Development Control: Zoning Regulations, Sub-division Regulations and Building bye-laws and Regulations for conservation of historical, heritage and natural areas.  
Neighbourhood planning: *principles and Techniques, Site Analysis and Designing of Neighbourhood*.  
Planning Surveys, *socio-economic survey* and studies for preparation of Master Plans.  
Preparation of Master Plans for Local Planning Area, Tools for plan implementation. UDPFI Guidelines for Plan Preparation and Implementation.

##### **Tutorial**

Land Use: *Techniques to Preparation of Base maps, Land use Classification* and analysis  
Basic planning tools like FAR, FSI, Coverage and residential density - their interrelationships and application in urban planning.

##### **References**

1. Lewis Keeble: Principles of Town and Country Planning. London,
2. K.S. Ramegowda: Urban and Regional Planning, Prasara, University of Mysore
3. Arthur B. Gallion: Urban Pattern
4. Rangawala: Town planning in India.
5. Chris Paris: Critical Readings I Planning Theory; Pergamon press Oxford 1982
6. Hundes S (Ed): Ethics: A reader in Planning Theory: Practices and Education. New Jersey

**Course-IV: FOUNDATION COURSE IN NETWORKS AND CONSTRUCTION TECHNOLOGY (for social science background students)**

##### **The Course Outcome**

**At the end of the course the students will be able to:**

- 1) Define the urban networks
- 2) Explain network systems of roads, water supply, sewerage, sanitation, water harvesting and energy
- 3) Understand the building materials and construction techniques including cost estimating

**Pedagogy**

- Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning
- Participatory Exercises and Activities for knowledge building Case studies, review and analysis
- Continuous internal assessment and external examination

**COURSE CONTENT**

**Lecture**

**PART- A**

Network characteristics - Infrastructure. Network and their relationship with urban form and layout design.

Water supply- source-treatment and distribution network in relation to population distribution and norms. Water harvesting methods in urban areas.

Sewage, sewers and sewerage – treatment and disposal. Site selection and optimum utilization of land . Sanitary land filling. Study of impact of solid wastes on land pollution and air pollution.

Urban energy system, different types of energy requirements- networks and distribution system. Cables and Optic Fiber cable laying and design criteria

Basic features of urban roads, gradient, camber. Curves and road drainage and types of

bridges.

**PART B**

Fundamentals of building construction- loads and forces, Safe bearing and capacity of soil. Parts of buildings and their functions. Types of Foundations. Types of building materials- Natural and manufactured- prefabricated materials- Impact of overuse of natural materials like soil, stone and wood on environment.

Building technique- traditional and modern techniques and their unique characteristics. Building types in relation to climate and natural landscape.

Building industry and management. Basic aspects of estimates and cost features.

**Tutorial**

Treatment of water for Rural and urban uses, sewage treatment for rural and urban areas.

Functions of Building components

**References**

1. R. Cox Charles: Operation and control of water treatment process; WTO Geneva, 1969.
2. T.P. Salvats: Environmental Engineering and Sanitation; Wiley and sons, New York 1972

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3. TB Whites: Design of Sewers and Sewage treatment works. Arnold Publishers London 1970

**COURSE-V: FOUNDATION COURSE IN SOCIAL SCIENCES**

(for Architecture and Engineering background students. Questions to be covered in all parts)

**Course outcome**

At the end of the course the students will be able to

- Elucidate the urban growth theories including settlement ecology
- Explain basic concepts of economics in the context of urban and regional Planning
- Define the family, society, community, culture and functions and social change
- Distinguish between basic and non-basic functions of settlements

**Pedagogy**

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning Participatory Exercises and Activities for knowledge building Case studies, review and analysis  
Continuous internal assessment and external examination

**COURSE CONTENT**

**Lecture**

**Part A**

Society, characteristics of society, society v/s community.  
Culture, characteristics of culture and functions of culture.  
Modernization and social change, Gender issues and social inequalities

**Part B**

Basic concepts of economics related to urban and regional planning, Demand and Supply-growth and development –per capita income, GNP and GDP – Employment and unemployment-Savings and Capital formation.  
National economic planning process, Characteristics of LDCs

**Part C**

Urban, urban growth and urbanization, Theories of urban growth, Basic and non-basic functions – economic base analysis, classification of towns.  
Settlement types and settlement pattern and human ecology.

**Tutorial**

Human Development Indicators – HDI, HPI and GDI  
Urban land use and land values,

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## References

1. Samuelson: Introduction to Economics.
2. Madan. G.R.: Social change
3. M.N. Srinivas: Social change in Modern India
4. Harold Carter: The study of Urban Geography.
5. M. Harris: Economic Development , Cities and Planning: Oxford University Press , Mumbai 1978
6. Evans. AW: Urban Economics: An Introduction, Oxford, Blackwell

## COURSE-VI: PLANNING STUDIO I: MICRO PLANNING (PROJECT WORK)

### Course outcome

At the end of the course the students will be able to

- 1) Digitize topographical sheets and interpret both relief and cultural features
- 2) Acquire skills on preparation of development plan of rural habitat by conducting Primary and Secondary Surveys, analyzing and Inter data and,
- 3) Develop skills on Appreciation of Existing Residential Neighbourhoods and compare with planning standards
- 4) Conceptualize and Develop the Neighbourhood Design by adopting Neighbourhood Planning Principles and Space Standards

### Pedagogy

Individual Work for Building skills of digitization of maps and interpretation

Group Work combined with individual work for building appraisal skill sets of neighbourhood

Team Building and Group Work by executing project work through detailed study for preparation of village development plan.

Building skill sets and innovation and through new design of neighbourhood including modeling.

## COURSE CONTENT

### Studio Exercises

1. Introduction to maps and Presentation Techniques: Interpretation of Topographical sheets. (2weeks, Marks IA 10 and Examination 10)
2. Rural Development Principles: Preparation of Plan for a Rural Habitat. (3 weeks. Marks IA 30 and Examination 30 marks)
3. Planning Appreciation of a Residential Neighbourhood. (3weeks. Marks IA 20 and Examination 20)
4. Neighbourhood Planning: Site Planning and Design – Principles and Planning Norms and Space Standards. (8 Weeks. Marks IA 40 and Examination 40 marks).

(Project Duration 16 Weeks. Marks Continuous Assessment A 100 and Examination 100 marks).

(Note: Study Visits to organized for Newly Developed Neighbourhood Units/Townships Bangalore and Mysore and other places)

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## SECOND SEMESTER

### HARD CORE

#### COURSE-I: REGIONAL PLANNING AND DEVELOPMENT

##### Course Learning Outcomes

- At the end of the course the students are expected to obtain the skills of understanding, describing and illustrating the following aspects:
- Understanding the concept, classification and delineation of the planning regions using six techniques.
- Understand the aspects of regional development and characteristics of backward regions. Illustrate all regional analysis techniques and describe the regional development theories.
- Understanding the process of District Planning – Context and Methodology, and the process of multi-level planning and SEZs.

##### Pedagogy

Lecture, Interaction, Presentations and Assignments of tutorial  
Participatory knowledge building through case study review and  
Analysis Continuous internal assessment and external examination

#### COURSE CONTENT

##### Lecture

Basic Concepts, Types and Classification of regions. Aim and objectives and need for regional planning. Delineation of planning regions by various Techniques- Principal component method, Composite index, Ridgeline technique, Gravity potential technique and Boundary girdle method etc.

Regional Planning and Economic Development- Backward regions and Developed regions, Characteristics and reasons for backwardness. Introduction to regional analysis techniques. Linear Programming, Input and Output model, Growth pole Hypothesis, Core-periphery models etc.

Regional Development Theories- W. Christaller; Von Thunen; Losch; A .Weber and W. Isard. Application of Regional techniques in District Planning. District Planning: Integrated approach to district level planning (vertical and horizontal spatial integration); Rural-Urban spatial relationship; District Development Plans – Guidelines for District Planning: Content and context and methodologies

##### Tutorials

Multilevel planning – Needs and methods of multilevel planning in India. Growth Foci concept- Regional planning as a tool to integrate rural and urban areas.  
Special Regions: SEZ, Agro Regions, Ecological regions and Industrial Corridor regions etc. Case Studies of regional plans.

##### References

1. R.P. Misra: Regional Planning: Concepts, Techniques and case studies; Concept Publishers, New Delhi 1998

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2. W. Isard: Methods of Regional Analysis- An Introduction to Regional Science. MIT Press, Cambridge 1960
3. Chand Mahesh and V.K. Puri: Regional planning in India; Allied Publishers, New Delhi, 1983.
4. K.V. Sundaram: Urban and Regional Planning in India; Vikas Publishing House, New Delhi 1984.
5. Hansen M. (Ed) Regional Policy and Regional Integration. Edward Edgar U.K. 1996
6. R.P. Misra. (Ed): Regional Planning, UNCRD Nagoya, Japan 10 volumes.

## **COURSE-II: ECOLOGY AND ENVIRONMENTAL ASPECTS OF PLANNING**

### **COURSE OUTCOME**

At the end of the course the students will be able to

- 1) Define the Ecosystem, components of built and natural environment
- 2) Explain Environmental Pollution and its impact on climate change
- 3) Elucidate the manmade and natural disasters and its consequences and measures ecology
- 4) Appreciate approaches of sustainable development including roles of roles of stakeholders.

### **Pedagogy**

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning Participatory Exercises and Activities for knowledge building Case studies, review and analysis  
Continuous internal assessment and external examination

### **COURSE CONTENT**

#### **Lecture**

Fundamentals of Eco-system and environment.  
Components of Natural and Built Environment- Man's role in changing the face of the earth.  
Man's impact on natural features viz. Atmosphere (climate), - Urban Heat Island; Forests and Landforms.  
Environmental pollution – types of pollution, air; water; noise and land – Their source, impact and abatement.  
Environmental Impact Assessment.  
Environmental Policy and Legislation in India  
International Environmental Issues on Stockholm Conference, Earth Summit 1992, Rio Conference.

#### **Tutorial**

UNEP and its Role.  
Sustainable Development  
Role of NGO's and Voluntary Agencies in preserving the environment.  
Types of natural and manmade disasters – Pre disaster planning- warning systems- disaster mitigating measures – post disaster measures – Inter-agency coordination and role of Voluntary agencies. Global Warming and Climate Change.

#### **References**

1. Brain J.L. Berry and Frand E. Horton, Urban Environmental Management, USA,1974
2. Detwyler: Urban Environment

3. Office of United Nations Disasters Relief Coordinator: Disaster prevention and mitigation Vol. 12 United Nations New York 1986
4. S. Ramani: Disaster Management: Advanced course on Modern Trends in Housing. Structural Engineering Research center., Vol.2 Madras 1980.
5. Detwyler: Urban Ecology
6. Bekerman: In Defense of Eco Development
7. Scoorer R.S.: Pollution – Air problems and policies
8. ENVIS: Journal of School of Planning and Architecture, New Delhi.
9. UNCHS: Human Settlements and Sustainable Development.

### **COURSE-III: HABITAT AND HOUSING**

#### **Course outcome**

At the end of the course the students will be able to

- 1) Define socio-cultural dimensions of urban and rural housing
- 2) Acquire the knowledge for a student to a discreet understanding of different dimensions of housing and its inter-relationships with varied socio-economic and physical characteristics at both urban and regional planning.
- 3) make students to possess knowledge and understanding of urban and regional dynamics to recognise opportunities and contribute positively to collaborative-multidisciplinary scientific techniques by learning housing typology, housing stock analysis and study on housing provider institutions which intern impart skills to provide shelter even to an un affordable people.
- 4) understand habitat I and habitat II recommendations, national habitat policy of developed and developing countries and develop knowledge for understanding habitat and housing to deal environmental issues to bring design of housing intern habitat under sustainable planning approach in the context of global climate change.

#### **Pedagogy**

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning Participatory Exercises and Activities for knowledge building Case studies, review and analysis Continuous internal assessment and external examination

### **COURSE CONTENT**

#### **Lecture**

Habitat – characteristics of rural and urban habitat- Main recommendations of Habitat I and Habitat II Conferences. Follow up action by India and Asian Countries. Need for a National Habitat policy. Definition of house, household and Family. Conceptual analysis- Housing as an index of social welfare. Housing as an integral sector of rural and urban development. Socio-cultural perspective of housing. Housing and family size – principles of community organization and participation in the design and implementation of housing programs. Cooperative Housing. Dimensions of rural and urban housing- Housing problems – Housing Housing Finance – Institutional and individual response to housing. Role of HUDCO in housing provision in India

#### **Tutorial**

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Market Analysis and Housing Quality- Appropriate Technology for housing. Housing in Five Year Plans, Incentives and innovations for house building activities  
Elements of National Housing Policy – Comparative Housing Policies of Developed and Developing countries.

#### Reference

1. Francis Cherunilam, Odeyar D. Heggade, Housing in India, Himalaya Publishing House, 1987
2. Brian C Aldrich, R.S. Sandhu, Housing in Asia – Problems and Perspectives, Rawat Publications, 1990
3. C. Abrahams: Man's struggle for Shelter.
4. IDS: Shelter and Habitat Asia Series, Research Monographs 1978
5. Hari Anand: Shelter in India.
6. Turner JFC: Housing for people, Alexandrie Press, Oxford 1979.
7. Shelter: In-house Journal of HUDCO, New Delhi.
8. UNCHS: National Experience with Shelter Delivery for the poorest group. UNCHS Nairobi 1994

#### COURSE-IV: TRAFFIC AND TRANSPORTATION PLANNING

The outcome by studying this course gives the knowledge of integrating different modes of transportation with the dynamics of settlement growth and developments in different contexts.

The evaluation and critical analysis techniques of traffic and transportation characteristics strengthens individual power of knowledge to plan traffic and transportation under various perspectives to design it by considering as infrastructure, or management issue or as component of sustainable development for organising mobility pattern of goods and people. The course content impart knowledge of connecting the required origin and destination over the space by creating shortest distance and time to access resources for production activities and infrastructure to satisfy the needs.

The traffic and transportation planning studies make students to analyse it as infrastructure which has interface with land use planning, the Interpretational knowledge of traffic and transportation planning on the physical and spatial planning issues by understanding different modes of transport and roadway hierarchy, geometric design and fundamental characteristics of traffic and transportation sets base for designing all other services, utility networks and facilities.

The content of the course ensure to acquire in-depth knowledge of traffic and transportation for students to have a sound understanding of the key issues affecting the planning, management and financing of private and public transport system in the overall developments for the highest degree of utilisations accordingly in both developed and developing countries.

#### Pedagogy

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning  
Participatory Exercises and Activities for knowledge building Case studies, review and analysis  
Continuous internal assessment and external examination

#### COURSE CONTENT



## Lecture

Forms of Transportation- Transportation system in India – Regional/Rural Roads - planning in India and Approaches to planning for rural roads.

Urban Road classification- Road characteristics – alignment and sight distance Traffic surveys – Speed, Volume, Intersection Design – Rotary and Signaling system  
Urban Transportation Planning Process- Setting goals and objectives- Land use and Traffic planning- Travel data. Trip generation and Trip Distribution – Evaluation of Transportation proposals.

Traffic Management – Pedestrian movement and control Planning for Mass Transportation by Bus, Rail and Bimodal. Rapid Transit System, and links with the region.  
Location analysis and plans for Railway stations and Marshaling Yards; Airport and Bus Station and Terminals.

## Tutorial

Origin and Destination Surveys  
Parking Surveys.

## References

1. Institute of Transportation Engineers: `Transportation and Traffic Engineering Handbook`. Prentice Hall. Inc., New Jersey 1982
2. Khanna E.J. and CEO Justo: Highway Engineering. Nemichant and Bros. Roorkey 1987.
3. Kadiyali. L.R.: `Traffic Engineering and Transport Planning. Khanna Publishers, New Delhi 1991.
4. HMSO: Roads in Urban Areas; HMSO London.
5. Bruton: Introduction to Transportation Planning Process; London.

## **COURSE-VI: PLANNING STUDIO II: PREPARATION OF A MASTER PLAN FOR AN URBAN AREA (PROJECT WORK)**

### Course outcome

At the end of the course the students will be able to

- 1) enhance the skills for analyzing and interpreting data and information in research methodology approach.
- 2) Acquire skills on preparation of Master Plan for an Urban Area by conducting housing and land use surveys and collecting, analyzing and interpreting data and proposals through team building

### Pedagogy

Assignments and Presentation for data analysis, literature review and book review  
Group Work for building appraisal skill sets of surveying of cities and towns  
Team Building and Group Work by executing project work through detailed study for preparation of Master Plan for an urban area.

### COURSE CONTENT

1. **Research Methodology:** The objective of this is to enhance the skills needed to analyze Interpret data and information and undertake Thesis preparation. The Five lectures will

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Cover Types of Research; Literature source and review, Analysis and Report format. This carries 20 marks out of internal assessment.

2. **Preparation of Master Plan for a Town or a city.** The exercise is a group work involves collection of Base map and tracing; Socio-economic and Physical Surveys of the settlement, Analysis of the data and Preparation of Plans including Land use proposals and infrastructure for 10 years with Planning Tools for implementation.

The presentation of this exercise in reviews and Examination is through Charts, Graphical and Spatial representation and Typed Report  
This carries 80 marks for Master Plan exercise,  
(Continuous Internal assessment marks 100 and examination marks 100)

### THIRD SEMESTER

#### HARD CORE

#### COURSE-I: PROJECT FORMULATION AND EVALUATION TECHNIQUES

##### Course outcome

This students will be able to

1. Conceptualise the project to the stage of feasibility and pre evaluation study to formulate the project and handle any kind of projects by translating their *ideas* into *schemes* and developing the same as *projects* in the area of urban and regional planning.
2. equip the students to understand the whole Project Planning Cycle. They strong enough to look into aspects such as to how prepare a project, how to do the various appraisals, how to implement, monitor and evaluate the projects.
3. formulation and evaluation of a project w.r.t financial, manpower and time as resources for development and managerial issues of urban and regional contexts.
4. knowledge mature students to examine the barriers they face to leverage their ideas to develop into a successful project.

##### Pedagogy

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning Participatory Exercises and Activities for knowledge building Case studies, review and analysis  
Continuous internal assessment and external examination

#### COURSE CONTENT

##### Lecture

Basic approaches and principles- Stages in plan formulation and execution of the projects- Pre-feasibility studies.

Types of Evaluation – Pre; Concurrent and Post Project- Economic, technical, market, managerial and financial aspects- Principles of measuring Cost Benefit Analysis. Economic and Social costs .Components of Cash Flow – Net Present Value and Future Value- Treatment of Uncertainty of projects.

Payback period. Accounting rate of return – IRR- Emerging trends in decision making process for joint sector projects like Escrow cover and Guarantee.

Capital Budgeting and Performance Budgeting

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### **Tutorial**

Networks – CPM and PERT analysis. Technique of monitoring of development works. BOT; BOOT; and Turnkey Projects.

### **References**

1. George Irrin, Modern Cost Benefit Methods-An Introduction to Financial, Economic and Social Appraisal of Development Projects, Macmillan, London, 1984
2. Dr. T.M. Mahesh, Evaluation of Watershed Programmes in Karnataka, Sujala Project and its impact on landless labourers, small and marginal farmers and socially marginalized groups in Chitradurga District, North Stafford Shire Press Limited, U.K.,2010, Laynard: Cost benefits analysis.
3. Ramaraju Thirumalai, Project Management- in Emerging Environment of Globalization, Himalaya Publishing House, 2002
4. UNIDS: Project Formulation and Evaluation – Research, monographs.
5. VTD Balaraman: Cost Benefit analysis, UNIDS 1978
6. Little and Merlees: Project Planning for Developing Countries.
7. Mishan: Cost Benefit Analysis.

## **COURSE-II: PLANNING LEGISLATION, GOVERNANCE AND MANAGEMENT**

### **Course outcome**

At the end of the course the students will be able to

- 1) Define the legislation, ordinance, bill, acts, rules and regulations
- 2) Explain the fundamental rights, directive principles of state policy, duties and panchayats and municipalities of Indian Constitution.
- 3) Explain the provisions of Karnataka Town Country Planning and Other Acts related to urban Planning and Development
- 4) Appreciate Principles of urban good governance and management of urban local bodies through transparency development including roles of roles of stakeholders.

### **Pedagogy**

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning Participatory Exercises and Activities for knowledge building Case studies, review and analysis Continuous internal assessment and external examination

## **COURSE CONTENT**

### **Lecture**

Legislation: Overview and Basis of Law, Meaning of Law, Ordinance and Bill, Act, Rules, Regulations and Bye-laws

Introduction to Indian Constitution- Citizenship, Fundamental Rights, Directive Principles of State Policy and Fundamental Duties of Citizen.

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The Panchayats and Municipalities: Powers, authority and responsibilities, Ward Committees, Metropolitan and District Planning Committees, 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendments and Functions of PRIs and ULBs under 11<sup>th</sup> and 12<sup>th</sup> Schedule of the Constitution.

Planning Legislation: Evolution of Planning Legislation in India, Legislative Competence of State and Central governments to enact Town Planning Legislation

The Karnataka Town and Country Planning Act, 1961 – Objects and purpose the Act, Declaration of Local Planning Area, Constitution of Planning Authority including its powers and functions, Preparation of Master Plan including Surveys, Contents, Approval, and Enforcement- Preparation of Town Planning Schemes, Duties of Town Planning Officer, Planning Authorities Rules

Land Acquisition for Master Plan Implementation: Land Acquisition Act, Development Rights/TDR

Urban Local Bodies, Powers and Functions of ULBs as per the Karnataka Municipalities Act, 1961; Municipal Finance- and Budget, Financing of plans and schemes.

Governance : Meaning Governance and concept of Good Urban Governance and Reforms, Resource Mobilization, Transparency and better Municipal Management,

#### **Tutorial**

UK Planning Laws: Development Plans, Structure Plans and Local Plans and PPG (Planning Policy Guidance)

Acts- Karnataka Urban Development Authorities Act, Bangalore Development Authority Act, Bangalore Metropolitan Regional Development Authority Act, Karnataka Planning Authority Rules, Karnataka Housing Board,

Development Control- Zoning Regulations, Sub-division Regulations and Building Bye-laws, Development Charges and Betterment Levy

Citizen Participation Law, Area Sabha and Citizens Participation in Planning.

#### **References**

1. The Constitution of India
2. Webster: Urban Planning and Municipal Administration.
3. HMSO: People and Planning
4. K.V. Sundaram: Urban and Regional Planning in India, Vikas Publishers, New Delhi.
5. Karnataka Town and Country Planning Act, 1961
6. Bangalore Development Authority Act 1976
7. Bangalore Metropolitan Regional Development Authority Act.
8. The Karnataka Urban Development Authorities Act, 1985\
9. The Karnataka Municipalities Act, 1964
10. AMDA: Urban Governance and Management of Urban Environment. New Delhi 1999.
11. T.N. Chaturvedi: (ed) Urban Governance, IIPA, New Delhi, 2000.

#### **Course-III: COMPUTERS APPLICATIONS, INFORMATION TECHNOLOGY AND GEOGRAPHIC INFORMATION SYSTEMS (GIS)**

#### **Course outcomes**

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- At the end of the course the students are expected to obtain the skills of understanding, describing and illustrating the following aspects:
- Understanding the concepts of computer applications, web resources, web portals and urban and regional information systems and IT and e-governance initiatives.
- Describe the structure and process of MIS, LIS and NIUS.
- Understand the concept of remote sensing applications in Urban and Regional Planning and describe the elements of GIS and geo-spatial technologies.

Illustrate the geo-spatial database design and management and input sources of Data and describe the GIS spatial data modeling, spatial analysis, network analysis and overlay analysis.

### **Pedagogy**

Lecture, Interaction, Presentations and Assignments of tutorial  
Participatory knowledge building through review of case studies  
Hands on experience with open source software's  
Continuous internal assessment and external examination

### **COURSE CONTENT**

#### **PART- A: COMPUTERS APPLICATIONS, INFORMATION TECHNOLOGY**

##### **Lecture**

Computer applications – Hardware, software and computer Networks. DISNET & NICNET. Web resources, web portal – SMARTNET, India Water Portal, India Environmental Portal etc.  
Data Base Management, Management Information System (MIS), Land Information System, National Urban Information System (NIUS).

##### **Tutorials**

Information Technology and e-Governance Initiatives: IT policy of State Government and Government of India, Case studies of Bhoomi, RDS and other e-governance initiatives in India.

#### **PART- B: GEOGRAPHIC INFORMATION SYSTEMS (GIS)**

##### **Lecture**

Introduction to remote sensing – spatial data acquisition and applications of remote sensing in Urban and Regional Planning

Elements of GIS: Hardware, data, software, data input. Vector and raster software, data storage and data management, data processing and data output and presentation. Concepts and User interface. GIS data types and Structures; Data Models, Vector Data and Raster Data. GIS Databases and Data Base Management System, Database design, Data integration, input sources,

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primary data, secondary data, satellite data, digitizing - manual digitizing, raster scanning, vector and raster conversion.

### **Tutorials**

Network analysis, Overlay analysis and Query. Modeling with GIS, Data analysis and modeling: Spatial analysis and modeling.

### **References**

1. Crown R.G. and S. John: Computers and Information Systems. McGraw Hill Book Company, Mumbai 1984
2. De Bruijin (ed); Urban Information System and Low Cost Survey Techniques: International Workshop on Urban and Regional Planning Information Systems. NRS and ITC, New Delhi. 1986
3. Brenda White: Urban Information Systems,
4. Rhind and H. Mounsey: Understanding GIS. Taylor and Francis. London. 1989.
5. George Joseph C Jeganathan . FUNDAMENTALS OF Remote Sensing Remote Sensing. Universities Press, Hyderabad, Third Edition. 2018

## **SUPPORTING PAPERS**

### **Course-IV: URBAN REDEVELOPMENT AND POVERTY ALLEVIATION PROGRAMMES**

#### **Course outcome**

At the end of the course the students will be able to

- 1) Distinguish between Urban Renewal and Urban Re-development
- 2) Understand the characteristics of slums and squatter settlements and their consequences
- 3) Explain the various Poverty Alleviation Programmes including community development
- 4) Appreciate the Urban renewal including slum improvement/development projects of India and abroad.

#### **Pedagogy:**

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial

Interactive Question and Answer Session and Peer Group learning

Participatory Exercises and Activities for knowledge building

Case studies, review and analysis Continuous internal assessment and external examination

#### **Course content**

##### **Lecture**

Urban Redevelopment and Urban Renewal: - Objectives of urban Renewal, Urban Blight – Causes, Measuring Blight, Problems of Urban Decay - causes and consequences, Technique of conducting surveys to assess urban decay/blight, Case Studies of Urban Redevelopment and Urban Renewal Projects in India and Abroad.

Slums: Characteristics of Urban Slums and Squatter Settlements - causes and its consequences.

Declaration of Slums, Slum Improvement, Resettlement and Rehabilitation and Redevelopment and its Case Studies.

Slum Improvement and Clearance Board and its Role in Development of Slum including Case Studies of Slum Improvement and Redevelopment Projects.

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Urban Poverty- Identification of Urban Poverty, Basic Services Approach for Identification of Poverty, Social Sector Goals, Urban Poverty Alleviation Programmes Viz. SJSRY and EIU, BSUP(JNNURM), National Urban Livelihood Mission (NULM) and other poverty alleviation programmes government of India and Karnataka State.

Livelihood, self-employment ventures, micro-financing (self-help groups).

Urban Community Development Initiatives, Creation of Community Structures, Community Development Society and its role in Poverty Alleviation ,

Role of Voluntary Agencies and Institutions in Slum Improvement and Slum Dwellers Welfare.

Informal Sector and planning for informal sector.

### **Tutorial**

Urban Renewal in Historical and Heritage areas; Natural Areas and rural pockets.  
Inclusive Planning.

Case Studies of Urban Redevelopment/Urban Renewal in Indian Cities and foreign countries..  
Industrialization and Urban growth and its consequences on Slums.

Environmental Improvement of Slums.

### **References**

1. Gilbert A and J. Gingle: Cities, Poverty and Development: Urbanization in Third World. (2nd Ed.) Oxford University Press, 1992.
2. UNCHS: National Experience with Shelter Delivery for the Poorest Group: UNCHS, Nairobi 1994.
3. John Angels e all: Slum Clearance
4. Five Year Plan Documents of Governments of India, Ministry of Urban Affairs and Poverty Alleviation.
5. Androa D Thomos: Housing and Urban Renewal; George Allen and Unwin, Sydney 1986.
6. Singh J and Tiwari RK: Managing Poverty Alleviation, IIPA, New Delhi, 1994.
7. Misra, GK and M.K. Narayan: Development Programs for Urban Poor, IIPA New Delhi 1995.
8. Poverty alleviation programmes (website of MOUD) and Urban Development Department (GoK).

## **COURSE-V: REAL ESTATE DEVELOPMENT AND URBAN ECONOMICS**

### **Course outcome**

At the end of the course the students will be able to

- 1) Define the concept of Land and its relevance in spatial planning
- 2) appreciate the land market functions
- 3) explain the real estate economics and its relevance in the Indian Market
- 4) Identify the instruments of land market

### **Pedagogy**

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning

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Participatory Exercises and Activities for knowledge  
building Case studies, review and analysis  
Continuous internal assessment and external examination

### **COURSE CONTENT**

Agglomeration Economics - Internal and external economies of scale, Multiplier effect with reference to regional development.

Economic concept of Land - relevance of Land Economics for Spatial Planning. Residential Location Theory. Development of Land- process of land development- Freehold Vs Leasehold- Urban Land Market and Real Estate Market. Socioeconomic and political factors influencing urban land market.

Functions of urban land market. Theoretical framework for functions of urban land market  
Social control of land involving land supply and demand. Need for public intervention with reference to urban Poor.

Real Estate Agencies Role of Real Estate in controlling the demand and supply of urban land. Development Regulations and urban Tax base. Self Assessment of Land Property - Guidance value and land supply.

Economics of real estate markets- investment analysis tools like proformas, debt financing of real estate leasing and property management, appraisal and the pricing of goods. Real Estate information system

Mortgage market. Role of government and financial institutions and consumers. Techniques of mortgage valuation and pricing. Contract regulations and financing issues. Alternate mortgage instrument.

Urban Policies and its impact on real estate. Transfer of Development Rights. Its impact on Real estate.

### **References**

1. Staurt Chapin: Urban Land Use planning.
2. Evans A W. Urban Economics - An Introduction
3. Richardson H.W. Analytical Urban Economics.
4. Karnataka State Town and Country Planning Act, recent Amendments and Urban Development Controls and Regulations.

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### **COURSE-VI: PLANNING FOR DISASTER MANAGEMENT**

#### **Course outcome**

At the end of the course the students will be able to

- 1) Define the types of disasters
- 2) Explain the Consequences of both manmade and natural disasters
- 3) Explain the techniques of Disaster Management
- 4) To appreciate the roles stakeholders

#### **Pedagogy**

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning  
Participatory Exercises and Activities for knowledge  
building Case studies, review and analysis  
Continuous internal assessment and external examination



## **COURSE CONTENT**

### **Lecture**

Types of Disasters - Natural and Manmade. Floods and flash floods - urban floods- causes and consequences- flood controls.

Land Slides, mudflow, forest fires, wild life fires and winter storms Cyclones- cyclone preparedness and Risk Management

Characteristics of fire hazard in urban areas- fire spreading- evacuation planning and planning for fireproof structures.

Disaster Management- Health issues - Evacuation behavior- current measures- vulnerability assessment- Evacuation planning in all types of natural disasters. Emergency management - alerts and warning- Role of Communications in Alerts and warning.

Geo-informatics- use of Remote Sensing in Disaster Management. Role and preparedness of Local Governments and NGO's in mitigating Urban Disasters.

Manmade disasters - Chemical spills, Terrorism and Urban Violence. Action plans to minimize the risks. Special Regulations.

### **Tutorial**

Identification of Special Areas for Development - Hill Areas; Flood Prone Areas; Drought Prone Areas, Desert Land and Saline Lands- Planning Appraisal and Planning Strategies.

### **References**

1. Thomas D Schnid and Larry Collins: Disaster Management and preparedness. Occupational Safety and Health Guides Services. USA
2. David Alexander: Natural Disasters- University College London, 1991.
3. John P Baston et al: An Ounce of prevention: A Handbook On Disaster Contingency Planning for Archives: 1995.
4. Five Year Plan Reports of Government of India, Planning Commission.
5. K.V. Sundaram: Planning for Hill Area Development - Concept Publishers. 1982
6. R,P, Misra et al: Regional Planning - Concepts and Case Studies, Vikas Publishers. 2001.

## **COURSE-V: INTERNSHIP**

### **COURSE OUTCOME**

- 1) The students will be able acquire Managerial skills by working in the Planning organization by understanding the system and processes

The students have to undergo eight weeks internship Training during vacation between II and III Semester. The students are to be deputed to Planning Organisations viz. Planning Authorities,/Development Authorities/ Local Bodies for Practical Learning for the period of 8weeks. The students are required to prepare project report and present before the jury of the Department.

### **Pedagogy**

Practical Learning of Procedure and Processes  
Build skills of Planning Organisations' Working System  
Sharpen the Application of Knowledge in the field

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**COURSE-VI: PLANNING STUDIO III (PROJECT WORK): Preparation of District Development Plan (Regional Planning Exercises)**

**Course outcome**

At the end of the studio/course the students will be able to

- 1) Collect data and information and analyze and interpret data at regional level/district level.
- 2) Acquire skills on preparation of District Development Plan by analyzing and interpreting data and proposals through team exercise
- 3) Identify a project for his/her thesis and prepare synopsis

**Pedagogy**

Group Work for building appraisal skill sets for collecting data for district  
Team Building and Group Work by executing project work through detailed study  
for preparation of District Development Plan  
Identifying the Project for Thesis work and preparation of synoptic note and  
presentation.

**COURSE CONTENT**

1. The students are required for Preparation and presentation of Synoptic Note on Planning Thesis through seminar.
2. The students are required to undertake a Regional Planning exercise by choosing any one of the Regions like Resource Region/River Valley Region/Command Area/ District or Metropolitan Region. The Planning exercise includes base map preparation, resource inventory, economy of the region, special programs and working out goals, formulation of strategies and broad proposals for the development of the Region. The presentation is through Graphs and Charts, Spatial analysis and Report. The students are expected to apply the planning techniques and statistical tools to draw conclusions.

**FOURTH SEMESTER**

**HARD CORE**

**COURSE-I: CITY AND METROPOLITAN PLANNING**

**Course outcome**

At the end of the course the students will be able to

- 1) Define the City, Metropolitan city in context of Indian urbanization and its processes
- 2) Explain the Metropolitan Planning Processes and its Decentralization
- 3) Illustrate the case studies of Metropolitan Planning strategies of Indian cities.
- 4) Elucidate the Metropolitan Governance and its Management

**Pedagogy**

Lecture, Interaction, Audio-Visual Presentations and Assignments of  
tutorial Interactive Question and Answer Session and Peer Group learning

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Participatory Exercises and Activities for knowledge  
building Case studies, review and analysis  
Continuous internal assessment and external examination

## **COURSE CONTENT**

### **Lecture**

Urban growth and urbanization- Urbanization in India- past and future trends - Growth Dynamics of urban centers in India.

Components of National Urbanization Policy and Recommendations of National Commission on Urbanization.

Metropolitan Center; Area and Region- Metropolitanization in India- Physical, economic and demographic characteristics of Metropolitan centers in India. Metropolitan Dominance- Phenomenon of Primate cities- Need for Metropolitan Decentralization- Satellite towns, Ring towns and Counter Magnets

Metropolitan Plan- preparation and implementation- Metropolitan Regional Plan and Structure Plan approach.

Management of metropolitan areas- Metropolitan Governance- Role of Metropolitan Planning Committee. Overlapping jurisdictions in Metropolitan region.

### **Tutorial**

The Draft State Urban Development Policy of Karnataka

Case studies metropolitan centers from India viz. Bangalore, Delhi, Mumbai, Chennai, Kolkata etc.

Role of Special Agencies in Metropolitan Management.

Planning for urban infrastructure in Metropolitan Cities – JNNURM, AMRUT, SMART CITIES, UIDSSMT schemes.

### **References**

1. McKenzie: The Metropolitan Community.
2. Hans Blumenfeld: Modern Metropolis, MIT Pennsylvania
3. VLS. Prakash Rao: Structure of Indian Metropolis. ISEC Bangalore.
4. Hall Peter: World Cities; Weidenfeld and Nicholas
5. ITPI New Delhi: Technical Papers of 39<sup>th</sup> All India T&CP Seminar, 1991.
6. Sivaramakrishan. KC. Metropolitan planning and Management in the Developing world-spatial decentralization policy in Bombay, Cairo and Nairobi. 1993.
7. Devas N. Rakir. C. (Ed); Managing Fast Growing Cities: New Approaches to Urban Planning and Management in the developing world. Longman, London 1993.
8. Miles R Smith: Metropolitan Problems, Methuen publication. London 1970.

## **OPEN ELECTIVE**

### **(DISCIPLINE CENTRIC)**

## **COURSE-II: URBAN DESIGN AND LANDSCAPE ARCHITECTURE**

### **Course outcome**

At the end of the course the students will be able to

- 1) Define the urban structure and built forms

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- 2) Explain the Basic elements of urban design
- 3) Appreciate the urban aesthetics including landscape
- 4) Enumerate the urban design principles and elements including landscape and heritage

### **Pedagogy**

Lecture, Interaction, Audio-Visual Presentations and Assignments of tutorial Interactive Question and Answer Session and Peer Group learning Participatory Exercises and Activities for knowledge building Case studies, review and analysis  
Continuous internal assessment and external examination

### **COURSE CONTENT**

#### **LECTURE**

Urban Structure and Components of traditional built forms. Its relationship with political, social, cultural, climatic and environmental factors.

Basic Elements of Urban Design- Mass, Space and Activity principles, Perceptions and scale in Urban Design.

Urban Aesthetics, Visual quality of urban environment, Design and Form, Visual perception and Image of the city- Semiological Theories- meaning of space, Psychological impacts of Urban elements.

Urban functions, Urban form, energy and Technology. Futuristic predictions of urban form such as Core City, ring city etc.,

Urban Design process- Surveys and Analysis,

Urban Design and Public policy. Legal controls in urban design and urban aesthetics.

#### **Tutorial**

Landscape as an element of Urban Design; Vegetation covers in cities. Vegetation and Human behavior. Trees for urban planting.

Principles of landscape design for Parks, Residential areas and commercial Districts.

Heritage and monuments and environment- Conservation and regeneration.

#### **References**

1. Pallonwy: The Urban Nest
2. Halen Rasseneu: The Ideal City
3. Edmund N Bacon: Design of Cities, Thomos Hudson, London 1971.
4. Kevin Lynch: Image of the City, MIT Cambridge 1961.
5. Contemporary Landscapes in the world: Process Architecture Co. Ltd. Tokyo, 1989.
6. John Motloch: Introduction to Landscape Design, Von Nostrand Co. New York 1991.

### **COURSE-III: VILLAGE PLANNING AND RURAL DEVELOPMENT**

#### **Course Learning Outcomes**

At the end of the course the students are expected to

- obtain the skills of understanding, describing and illustrating the following aspects:
- Understanding the concepts of nature and forms of rural communities.

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- Describe the National planning on rural development, Rural economic base, village industries and trade and services
- Illustrate the role of rural local government and evaluation of various anti-poverty rural development programmes and planning for rural infrastructures
- Describe the appropriate rural technology and resources and the process of GP development plans.

#### **Pedagogy**

Lecture, Interaction, Presentations and Assignments of tutorial contents  
participatory knowledge building through review of case studies  
continuous internal assessment and external examination

#### **COURSE CONTENT**

##### **Lecture**

Nature of rural communities - Structure and forms of rural settlements. National planning and rural development. Rural economy - Planning for rural economic base. Village Industries and village trade and services. Agriculture and other primary sector.

Rural Local Governments and rural Institutions in development activities- 73<sup>rd</sup> Constitution Amendment Act and its impact on rural development

Evaluation of rural development programs of central and state governments like MGNREGA, PMGSY, SBA, NRHM, PMAY etc.

Planning for rural infrastructure - Energy, roads, water supply, sanitation and rural services - Agro services.

##### **Tutorials**

Appropriate Technology for rural development like use of local resources, Rain water harvesting, water recharge and soil conservation and waste land development.

Monitoring and Evaluation of anti-poverty programmes - Best Practices across the global.

Overview of Guidelines for preparation of Gram Panchayat level Development Plans.

##### **References**

1. K.V. Sundaram: Rural Area Development, Concept Publishers, New Delhi.
2. IIPA: Rural Administration.
3. Government of Karnataka: Karnataka Panchayat Raj Act.
4. H.A. Hye: Integrated approaches to Rural Development. Sterling Publishers, New Delhi 1986.
5. B.S. Khanna: Rural Development in South Asia. Allied Publishers New Delhi 1991.
6. R.P. Misra (Ed); Rural Development and National policies and Experiences. UNCRD Nagoya 1981.

#### **Course-IV: PLANNING THESIS**

##### **Course outcome**

At the end of the course the students will be able to

- 1) Define aim, objectives, methodology, scope and limitations
- 2) Carryout survey/collect data, interpret data and Analyze data and make proposals

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- 3) Prepare Thesis report and drawing of thesis work
- 4) Present the thesis work and demonstrate his work independently

**Pedagogy:**

Preparation and Presentation of Synopsis and work plan of Thesis work of independent project.  
Review of data, analysis, techniques, through drawings Preparation of Report  
Presentation and Depend the Project Work of Thesis

**COURSE CONTENT**

Planning Thesis will be individual work to be carried out by students. The students will have to choose the topic for Thesis during the III Semester in consultation with the Faculty. Each student is assigned a faculty for supervision/Guidance. The thesis work covers Report, Plan Drawings, Graphs and Charts. The student has to defend his or her work before a Jury consisting of Chairman BOE, Guide, internal and external Examiners. The typed copy of the thesis (Three copies of both hard and soft copies) will have to be submitted one day before the Defense Examination and the Thesis Defense examination will have to be held within one month before the last Theory Paper Examination in IV Semester. Thesis carries 400 marks of which 200 marks for continuous assessment internally and 200 marks for Planning Thesis Examination.

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