

I SEMESTER

COURSE CODE	16HDC11
COURSE	HUMAN HABITAT:STUDIES AND DESIGN THOUGHT
CONTACT PERIODS	3hrs /Week (Lecture)
PROGRESSIVE	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE:

To introduce the students to the concept of holistic Habitat Design with Socio economic and Historic determinants and dimensions of urban design and planning

OUTLINE:

Components of human habitat, Evolution of cities and towns in India, Socio economic and Historic determinants of urban growth and urban form.

Reading the city. Social structure, cognition, experience and urban form. Dimensions of urban design.

Grain texture scale, socio spatial schema. Urban design vocabulary.

Habitat Design, Urban Design and their relation with planning and architecture.

Views of Design of habitat as extension architecture (mega architecture) and as architectural expression of planning.

Evolution of concepts of urban form and design in different cultures and in India. Utopian concepts.

Concepts in urban Design and planning.

Rise of Advocacy Planning, changing role of NGOs and Urban Social Movement in India.

Urban design survey - inventories; techniques/approaches to urban design.

Imageability, townscape and elements of urban design (Gordon Cullen, Kevin Lynch).

Historical examples of urban design projects.

Suggested seminar topics/ term papers

Emerging issues – social and communal conflicts in urban area

Urban design at micro level: campus planning, city centers, transportation corridors, and residential neighbourhood; water fronts.

Reference books:

1. Kevin Lynch- Imageability of City
2. Camillo Sitte -City Planning according to Artistic principles
3. Kevin Lynch -Good City Form
4. Rob Krier -Urban street and Squares
5. Gordon Cullen -Townscapes
6. Time-Savers Standards for Urban Design

COURSE CODE	16HDC12
COURSE	PLANNING THEORY AND TECHNIQUES
CONTACT PERIODS	3hrs /Week (Lecture)
PROGRESSIVE	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE:

To introduce the basic concept of urban planning in terms of tools and methods and their application in modern context.

OUTLINE:

Planning terms and definitions. Basic principles of planning of settlements.

Aims and Objectives of Physical Planning, Levels of Planning in India, Characteristics of Planning, Models of the Planning Process, Components of settlement structure.

Preparation of Urban Development Plans, types, scope, purpose, contents and approaches to the interim and comprehensive plans: Structure Plan, Master Plan, Zonal Development Plan, and Strategic Planning.

Theories of Urban structure, Urban Sub-systems.

Concepts of Urban Land use, Systems affecting land uses and rationale for land use planning, Locational attributes of urban land uses.

Legal frame work, Regulations, byelaws, standards and norms and their basis.

Survey Research Process – Primary & Secondary sources of data, techniques of data collection, analyzing and presenting physical and socio-economic data, questionnaire design, administration of field surveys, Sampling, sample designs, size, types, sources of various data in India

Techniques of understanding spatial structures of cities and towns. Analysis of structure of nodes, roads and networks and spatial structure.

Use of aerial and satellite remote sensing for planning. Introduction to GIS

Suggested seminar topics/ term papers

Theories of Urban Planning, Choice Theory, Advocacy Planning, Action Planning, Mixed planning – Relevance in Indian context

Reference books:

1. Arthur Gallion - Urban Pattern
2. Siddhartha N.Mukherjee -Cities -Urbanization and Urban System
3. Peter Hall -Urban and Regional Planning
4. K.P.Yadav, Vol 1-5- Encyclopedia of Economic Planning and Development

COURSE CODE	16HDC13
COURSE	ADVANCED THEORY OF DESIGN:
CONTACT	3hrs /Week (Lecture)
PROGRESSIVE	50
EXAM MARKS	100
TOTAL MARKS	150
CREDITS	03

OBJECTIVE:

To gain exposure to advances in Design theory and its impact on cities of India and other countries.

OUTLINE:

Design theory and its impact on cities of India and other countries. Modern architectural and urban design movements. Post modernism and contemporary movements in art and architecture and urbanism. Critical study of Contemporary views of urbanism.

Environmental perception, cognitive and mental maps, image of towns and cities. Theory of urban form. Metaphors and iconic structures and their impacts.

Impact of structuralism and post structuralism, ideas of self-similarity and fractals, neo classism, revivalism etc on habitat design theory.

Organic habitats and designed habitats. Impact of culture on human settlements.

Historic core and contemporary urbanism. Study of Ideas of historic layering of space and networks, lattices v/s trees as urban structural metaphors, growth and value addition v/s. sustainability. Gandhian thought and its relevance.

Behavioral issues in urban design; principles of urban spatial organization; urban scale, urban spaces, urban massing; quality of urban enclosure.

Reference books:

1. Jon Lang -Creating Architectural Theory
2. Jon Lang -Urban Design
3. Kate Nesbit -Theorizing A New Agenda For Architecture
4. Geoffrey Broadbent, Richard Bunt, and Charles Jencks -Signs, Symbols and Architecture

COURSE CODE	16HDS14
COURSE	SPATIAL AND SOCIO-ECONOMIC STRUCTURE OF HUMAN
CONTACT	3hrs /Week (Studio)
PROGRESSIVE	100
EXAM MARKS	-
TOTAL MARKS	100
CREDITS	02

OBJECTIVE:

To understand the correlation between social aspects and spatial structure within the human habitat

OUTLINE:

Studio: Aims at study of formal or informal settlement in an Urban area to understand the correlation.

Structure of settlement and the geographic parameters of topography, climate, natural resources.

Study of culture, environment, society, community, groups; Social structure and institutions - continuity and change. and their impact on the structure of human habitat.

Economic base and Economic growth. Dichotomy of rich –poor. Efficiency versus equity, Real estate setup, Market and demand analysis.

Effects of technological change, Management and Characteristics, States of conflict. Struggle for space, Density overcrowding, Urban stress and Gender issues.

Suggested seminar topics/ term papers

Social and spatial dimensions of poverty in India.

Crime and spatial structure of cities.

Concept of formal and informal sector.

Reference books suggested:

1. Ralph Thomlinson -Urban structure, social and Spatial character of cities
 2. G.Duscan Mitchell -A new Dictionary of Sociology
 3. Dr. Naseem A. Azad -Social and Economic Problems
 4. Gordon Marshall -Oxford Dictionary of Sociology.
- Critical readings of selected essays and commentaries on contemporary urban society and habitat issues in India and developing countries

COURSE CODE	16HDS15
COURSE	URBAN TRANSPORTATION AND NETWORKS: SPATIAL
CONTACT	3hrs /Week (Lecture)
PROGRESSIVE	50
EXAM MARKS	-
TOTAL MARKS	50
CREDITS	02

OBJECTIVE:

To introduce the fundamentals of urban transport planning, urban networks and multimodal transport systems developed in response to and as an organizing factor of spatial structure of habitat systems.

OUTLINE:

Scope of urban transport planning, interdependency of transport and land use, stages - system approach to transportation planning.

Urban Transportation systems; classification of transport systems; technological characteristics of transport modes and systems; the nature of demand and supply of transport services.

Mobility Concept – Introduction- Pedestrian and motorized and non-motorized vehicles- Mobility Measures.

Urban Transportation surveys: Definition of study area, zoning, types of surveys, Forecasting traffic in relation planned land use.

Stages in Urban Transportation:

Trip Generation- Introduction-Definitions- Trip Purposes-Factors associated with Trip generation and Attraction- Method of analysis- Multilinear Regression Analysis- Assumptions-Applications- Shortcomings (No Numerical Problems)

Trip Distribution- Introduction-Methods-Growth factor-Uniform growth factor-Average Growth factor-Fratar Methods and synthetic analysis-Gravity Model- Simple Numerical Problems

Trip Assignment –definition- Applications- Resistance to travel- Minimum travel path tree- Assignment Techniques-All- Or- Nothing- Multiple Route – Capacity Restraint- Diversion Curves

Modal Split : Introduction- Factors affecting- Modal Split in the Transportation Planning Process, Public Transportation modes: Systems in India, problems and prospects, present practices in urban transportation. Metro, Mono, and high capacity buses.

Parking in transport system, parking surveys, parking norms and standards and new approaches to parking systems.

Design of transport infrastructure.

Recent innovations in technologies and its probable impacts on future urban forms.

Government transport policies and evaluation of transportation proposals.

Reference books suggested:

1. Khanna and Justo -Highway Engineering
2. Kadiyali L R.-Traffic Engineering and Transportation Planning
3. Dimitriou H.T.- Urban Transport Planning and Developmental Approach
4. Michael J Bruton,- An Introduction to Transportation Planning
5. John Black -Urban Transport Planning and Design.

COURSE CODE	16HDC16
COURSE	HABITAT DESIGN STUDIO-I
CONTACT	15hrs /Week (Studio)
PROGRESSIVE	200
VIVA	300
TOTAL MARKS	500
CREDITS	10

OBJECTIVE:

The Habitat Studies Studio aims at studying and understanding the fabric of an existing habitat and also to understand determinants and causative forces responsible for urban growth and change - the resulting physical manifestations- development process to provide the student with studio skills related to contemporary design issues to fulfill the broad conceptual frame of the courses.

OUTLINE:

Studio: Aims at detailed study and documentation of an existing urban fabric and suggestive interventions.

The Studio will be divided to the following modules:

- a) Documentation of a precinct-
 1. Addressing principles of site planning, natural features and environment, typology / morphology, density patterns etc.
 2. Infrastructure and habitat management standpoint
 3. Human network, through ownership, use cycles, associational value etc.
 4. Presentation techniques
- b) Identification of problems and issues.
- c) Compiling the documentation as a report.
- d) Proposed conceptual interventions.

The Design Workshop: The workshop - is a seminar course cum design conducted by invited professionals as well as faculty who may demonstrate, the design development process of project. Projects may vary in scale and content and should preferably raise urban level or fundamental design issues.

Studio exercises may be carried out in groups and interventions to be submitted individually.

Submissions shall be in the form of drawings and Report.

Knowledge of CAD is a prerequisite.

Reference books:

1. Cliff Moughtin Urban Design - Street and Square
2. Kevin Lynch -Site Planning

COURSE CODE	16HDE17
COURSE	VIRTUAL IMAGING TECHNIQUES
CONTACT	2hrs /Week (Practical)
PROGRESSIVE	50
EXAM MARKS	-
TOTAL MARKS	50
CREDITS	02

OBJECTIVE:

To sensitize the students with latest methods of 3 dimensional imaging tools for effective presentation of data, studies and proposals

OUTLINE:

Software like Flash, Maya, Rhinoceros and similar ones may be studied. Introduction to scripting, animation and short films, introduction to morphogenesis techniques etc. The subject could be introduced as intensive workshops with invited specialists. It will be done as practical subject.

COURSE CODE	16HDE18
COURSE	HERITAGE HABITATS: CONSERVATION AND RENEWAL
CONTACT	2hrs /Week (Lecture)
PROGRESSIVE	50
EXAM MARKS	-
TOTAL MARKS	50
CREDITS	02

OBJECTIVE:

To equip students to deal with conservation and recycling along with related design issues of existing urban environment, old cities, natural and urban heritage areas.

OUTLINE:

Interactive session of History heritage and cities, traditional water systems.

Introduction to conservation, historic and inner city areas and other Natural elements.

Concepts and approaches to conservation in India and other countries.

Socio-economic development, tourism infrastructure development, and role of urban conservation.

Institutional Aspects of Conservation - Charters - World Heritage legislation and Sites Conservation Acts

Legislation Archaeological Acts Institutional framework for conservation in India and other countries.

Historic overview of recycling cities.

Conservation Area practice, adaptive reuse, up gradation programs in old areas, infill design.

Financial and Implementation framework for urban conservation and Adaptive Reuse Projects.

Urban recycling and brown field projects, urban renewal and development strategies for regeneration of inner cities areas.

Conservation management, community participation, economic regeneration, upgrading infrastructure, financing and implementation framework for redevelopment and revitalization projects.

Legislation frameworks and institutional framework for special areas, urban conservation, and urban recycling.

Recent successful practices in urban conservation and regeneration in India and other countries.

Suggested seminar topics/ term papers

Case studies of adaptive reuse and Inner city revitalization.

Reference books:

1. Alan Dobby -Conservation and Planning
2. Herat – The Islamic City (A study in Urban Conservation)
3. Bernard Feildan- Conservation of Historic Buildings.