ANNA UNIVERSITY, CHENNAI
NON-AUTONOMOUS AFFILIATED COLLEGES

M. ARCH. (URBAN DESIGN) FULL-TIME PROGRAMME

REGULATIONS 2021
CHOICE BASED CREDIT SYSTEM

1. PROGRAMME EDUCATIONAL OBJECTIVES (PEOs):

I. To provide architects with career progression knowledge and skills sets as urban designers/researchers/ teachers to address emerging challenges of mega cities.

II. To provide architects with requisite knowledge on socio economic, cultural, political parameters that shape cities

III. To add value multiplier skill sets to students to the process of architecture by exploring the urban condition in detail with quantitative and qualitative research methods.

IV. To empower architects to be effective stakeholders and leaders in the domain of contemporary resilient cities with industry 4.0 skills.

V. To be part of policy and decision making teams by gaining clear understanding of relevant area of study

2. PROGRAMME OUTCOMES (POs):

On successful completion of the program,

I. Postgraduates will be able to contribute further to society through their design/research/teaching.

II. Postgraduates will have broad understanding on the Socio economic, cultural & political aspects of cities and evolve concordant solutions to achieve the goal.

III. Postgraduates will be equipped with critical thinking & logical reasoning skills to address emerging urban issues and frame holistic solutions.

IV. Postgraduates will be well versed with industry 4.0 skills including IoT, cognitive computing and design automation.

V. Postgraduates will use their design and research skills to develop public space and pursue higher livability standards.

VI. Postgraduates will be able to engage with society & civic agencies to resolve urban & environmental concerns.

PEO /PO Mapping

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ANNA UNIVERSITY, CHENNAI
NON-AUTONOMOUS AFFILIATED COLLEGES
M. ARCH. (URBAN DESIGN) FULL-TIME PROGRAMME
REGULATIONS 2021
CHOICE BASED CREDIT SYSTEM
I TO IV SEMESTERS CURRICULA AND SYLLABUS

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| 6.     | UR4121      | Urban Analysis and Diagramming        | PAEC     | 1 | 0 | 3 | 4                          | 4       |

STUDIO

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| 7.     | UR4111      | Urban Design Studio I                 | PCC      | 0 | 0 | 10 | 10                         | 10      |
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* Audit Course is optional

SEMESTER II

(Prerequisite- Pass in Urban Design Studio I)

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PROFESSIONAL ELECTIVE

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* Audit Course is optional
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PROFESSIONAL ELECTIVE COURSES(PEC)

**SEMESTER II, ELECTIVE I**

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## PROFESSIONAL ABILITY ENHANCEMENT COURSES (PAEC)

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### AUDIT COURSES (AC)

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OBJECTIVES

- To give comprehensive understanding of development of urban form and its determinant factors in global and Indian contexts.
- To introduce and enable understanding of various aspects of urbanism through historical and theoretical frameworks.
- To understand historical significance of urban design interventions.

UNIT I  INTRODUCTION  6
Introduction to origin and evolution of cities: form and urbanism. Normative, positive theories; Cosmic, Machine & Organic Models; Descriptive & functional theories.

UNIT II  EVOLUTION OF URBAN FORM- GLOBAL CONTEXT 10

UNIT III  EVOLUTION OF URBAN FORM – INDIAN CONTEXT 10

UNIT IV  MODERN AND POST-MODERN URBANIST THEORIES 10

UNIT V  CONTEMPORARY URBAN INTERVENTIONS 9

OUTCOMES

- Knowledge of evolution of global and Indian urban form.
- Ability to comprehend historical and theoretical frameworks to address contemporary urban issues.
- Understanding on the historical significance of urban design interventions in global urban scenario.
REFERENCES

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UR4102 URBAN PLANNING: POLICY AND PRACTICE  L T P/S C
3 0 0 3

OBJECTIVES
- To give awareness about the principles of urban planning
- To present a critical overview of relevant urban planning policies, techniques and methods, planning processes and their impact on urban growth, development & infrastructure.
- To give exposure to different aspects of data, planning standards, models and projections.

UNIT I PLANNING THEORIES AND DEFINITIONS
Planning glossary. Planning theories and applications in settlement planning. Types of plans: Master Plans, development plans, structure plans, physical, economic and social plans. Planning scales: regional, city, zonal, area, planned unit development schemes. Theories of physical planning: center-place theory, gravity model, primate cities.
UNIT II DATA BASE FOR PHYSICAL SURVEYS

Data base for physical surveys including land use, building use, density, building age, etc., and socio-economic surveys. Sampling and survey techniques. Land use classification or coding. Preparation of base maps: concepts of scales, components and detailing for various levels of plans (like regional plan, city plan, zoning plan, and local area plan). Classification, delineation and ranking of regions and settlements - Guttmann's Scalogram. Desire line diagrams, Threshold analysis. Input output analysis, SWOT analysis. Planning models (descriptive and decision making models). Methods of population forecasts and projections: urban- rural, urban concentration, metropolitan concentration, location dimensions of population groups- social area and strategic choice approach. Interconnected decision area analysis.

UNIT III SPATIAL STANDARDS

Spatial standards, performance standards and benchmarks, and variable standards in applicable scenarios. URDPFI guidelines - Zoning regulations/ordinances and DCR and (development control rules and regulations). Emerging techniques in settlement planning: land management techniques, Land pooling, land assembly, PRT (Plot reconstitution techniques), land readjustment, transfer of development rights.

UNIT IV TECHNIQUES AND APPROACHES IN URBAN PLANNING

Various approaches to urban land zoning: mixed zone, floating zone, white zoning etc. TOD (Transit Oriented Development). New Urbanism and PIU (Principles of Intelligent Urbanism). Public participation in planning process. Regional urban resilient planning to address climate change and global emergencies.

UNIT V URBAN INFRASTRUCTURE


TOTAL: 45 PERIODS

OUTCOMES
- An understanding of various urban planning principles, facets, types, scales, theories and regulations
- Familiarity with urban planning frameworks, tools, methodology and applications in contemporary situations.

REFERENCES
9. Margaret. An introduction to Town planning Techniques. Hutchinson Educational, Hutchinson
12. Urban and regional development plans formulation and implementation (URDPFI) guidelines, Government of India, Ministry of Urban Development – Volume
CO-PO MAPPING

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UR4103 URBAN HERITAGE AND CONSERVATION  

OBJECTIVES
- To introduce the idea of conservation as value addition to city life, place, memory and identity
- To enable understanding of the importance of conserving building heritage, historic precincts & natural heritage
- To give awareness of conservation strategies & legislature, in preserving the essence of a heritage structure or precinct

UNIT I INTRODUCTION TO CONSERVATION 6
Understanding the need for heritage conservation. Types of Heritage. Introduction to Conservation, preservation and adaptive reuse of buildings and historic districts.

UNIT II CONSERVATION STRATEGIES 10

UNIT III HISTORIC DISTRICTS AND HERITAGE TOURISM 10

UNIT IV URBAN ECOLOGY AND NATURAL HERITAGE 10

UNIT V CONSERVATION LEGISLATION 9
Central and state government policies and legislation. Role of Conservation Agencies and conventions: ICOMOS, ICCROM, UNESCO, ASI, INTACH, ICHN. Charters and trends in conservation: Florence Charter, Burra charter. Norms for conservation of heritage buildings and sites as part of development regulations, Heritage byelaws and special conditions. Heritage impact assessment. Community heritage leverage legislation such as LEASE Act, RENT Control Act & CESS and TDR. Government of India heritage programs such as HRIDAY and PRASAD.

TOTAL: 45 PERIODS
OUTCOMES

- An understanding of the role of conservation & identity in burgeoning cities.
- Familiarity with conservation types, strategies & legislation.
- Ability to use critical conservation frameworks for evaluating historical buildings and districts, urban ecology and propose strategies for preservation, conservation and adaptive reuse.

REFERENCES

1. PEARL. Urban heritage in Indian Cities. New Delhi: INTACH publications, 2015

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UR4191 SOCIAL THEORY AND THE CITY L T P/S C 3 0 0 3

OBJECTIVES

- To give critical understanding of the city and its underlying forces through various social theories
- To give awareness of urban processes through political, economic, social and cultural lenses.
- To give knowledge about the role of people and culture in city identity.

UNIT I CITY, CULTURE AND ITS IDENTITY


UNIT II HISTORIOGRAPHY AND THE CITY

Understanding authorized and subaltern histories of cities - society and cities in vernacular literature, folk tradition and popular art - post-colonial theories and histories of Indian Cities.

UNIT III POWER AND RESISTANCE IN THE CITY SPACES

Understanding the concept of power and its space manifestation in cities. Historic Indian Treatises: Chanakya Neeti, Harshcharitra, Ula, Uthirmerur inscriptions, Baburnama, Ain-i-Akbari. Theories of Giddens, Aldo Rossi, Corbusier, Oscar Niemeyer, Foucault. Case studies from New Delhi, Istanbul, Los Angeles, Jerusalem, Shenzhen.
UNIT IV URBAN POLITICS

UNIT V GAZE IN THE CITY
Space and body: The Flâneur, gaze and urban public spaces. Tourist gaze, gender gaze, colonial gaze. Sexuality in urban space: feminista, queer, transgender, etc.

OUTCOMES
- An understanding of the city and its underlying forces though various social theories.
- Ability to process city through political, economic, social and cultural lenses.
- Ability to understand the city in terms of people, community & identity.

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OBJECTIVES
- To provide knowledge on visualizing, diagramming, mapping and analyzing urban form and place
- To enable understanding of the importance of data mining and its various methods.

UNIT I INTRODUCTION

UNIT II COGNITIVE DIAGRAMMING AND BASE MAPS
Basics of mapping. Preparation of figure ground maps collating satellite images, GIS, area development maps, records and ground corroboration. Cognitive mapping of tangible and intangible layers: land-use, districts and boundaries, physical histogenesis, heritage fabric, program-movement, activity, nodes, thresholds-networks, pedestrian pathways, transit density, policy initiatives, population demographics, visual and non-visual clues, social memory, community narratives and place realms, soundscape, real estate dynamics, ecology and environmental factors, physical and social infrastructure.

UNIT III MAPPING WITH THEORY OVERLAYS
Exploring and analyzing selected urban sites with mapping overlays of urban theories (as filters) on figure ground diagrams and base maps: imageability, permeability, variety, legibility, built, natural and cultural landscapes, perception, monuments and dwelling, spatial syntax, heritage urban form, social life of small urban spaces, life between buildings, FARMAX. Urbanism in the age of climate change, defensible space, and infrastructural urbanism, urban flows, e-cities, e-bodies, globalization and local culture, livability.

UNIT IV DATA VISUALISATION
Envisioning information. Graphical representation of data. Ben fry's seven steps in creating data visualization: Acquire, Parse, Filter, Mine, Represent, and Refine, Interact. Visual interconnection of facts & ideas: Relationship facts, contacts, connections, time-series, relational graphics, data maps, multivariate designs, scales. Quantitative; discreet; continuous; categorized data to be visualized with graphics software. Visualizing data for various urban development indices and quotients such as livability, walkability, mobility, commuting, off-peak travelling, local business, health, resilience, happiness, urban stress, surveillance and SDG, sustainable development goals.

UNIT V DATA ANALYSIS
Detection of graphical deception: design variation vs. data variation. Sources of deception. Aesthetics and Data graphical displays. Urban data mining - extracting meaningful information from raw data through simple programming software, iterative data analysis and refinement for various urban development indices and quotients. Social media data analysis as a complementary tool for urban design

OUTCOMES
- Ability to analyze and comprehend urban condition with mapping-diagramming tools and an array of urban glossary
- Ability to extract, visualize and analyse urban data using analytical tools, to understand and communicate urban development issues, indices and quotients.

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UR4111 URBAN DESIGN STUDIO I

OBJECTIVES
- To enable exploration of urban cores in flux and propose future scenarios for their development
- To enable exploration of opportunities to conserve, strengthen and revitalise city cores.

CONTENT
Most often, city cores have substantial historic building stock and a network of places intertwined with local culture. It is imperative that old city cores - their networks, street life, and community spaces are taken into consideration in infrastructure upgradation, public projects and real estate development. New development, community infrastructure and amenities should be sympathetic to the context of the local community, architectural heritage and equity and enrich city cores.

This studio seeks to address the role of transformative place making in the context of city cores. Students will explore the selected area of study, through experiential mapping, physical mapping, and interviews, review of policy and regulations, application of urban design theories, frameworks, data visualization and models.
This studio seeks to address the role of transformative place making in the context of city cores. Students will explore the selected area of study, through experiential mapping, physical mapping, and interviews, review of policy and regulations, application of urban design theories, frameworks, data visualization and models. Students will analyze various urban design parameters inclusive of:

- the role of historic districts, urban morphology and building types, places and landform types, in a city’s socio-cultural identity
- urban design challenges in integrating transit, pedestrian, social, health and community infrastructure in historic fabric
- relationship between a building and public realm
- placing urban catalysts
- local cultural aspirations and notions of space-place
- safety, health and public space

Probable projects might include urban in-fills, urban catalysts, transit, and pedestrian and community infrastructure as modes for urban revitalization, conservation guidelines, and form-based code manuals for contextual transformation, cultural landscape and place making proposals.

**TOTAL: 150 PERIODS**

**OUTCOMES**

- Refined understanding of issues transforming urban cores
- Ability and skill to propose strategies for transformative contextual place making at historic precincts in flux.

**REFERENCES**


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OBJECTIVES
- To give introduction to the importance of critical inquiry as a way of gaining knowledge and adding to it through research.
- To give exposure to the various forms of research and research methodologies/processes.
- To understand research in the specific domain of built environment research.

UNIT I INTRODUCTION
Basic research issues and concepts. Orientation to research process. Types of research: historical, qualitative, co-relational, experimental, simulation and modelling, logical argumentation, case study and mixed methods. Illustration using research samples including research in the domain of built environment.

UNIT II RESEARCH PROCESS
Elements of Research process: finding a topic, writing an introduction, stating a purpose of study, identifying key research questions and hypotheses, reviewing literature, using theory, defining, delimiting and stating the significance of the study, advanced methods and procedures for data collection and analysis. Illustration using research samples including research in the domain of built environment.

UNIT III RESEARCHING AND DATA COLLECTION
Methods of data collection- Primary sources: observation and recording, interviews structured and unstructured, questionnaire, open ended and close ended questions and the advantages, sampling. Collecting data from secondary sources.

UNIT IV REPORT WRITING
Research writing in general and its components. Developing the outline, referencing, writing the bibliography, presentation, etc.

UNIT V CASE STUDIES
Case studies of competent research, from project inception to completion with a focus on research in the domain of built environment. Review of research publications.

TOTAL: 45 PERIODS

COURSE OUTCOMES

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<td>Familiarity with specific research related to built environment.</td>
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REFERENCES
CO – PO Mapping – Research Methodologies for Built Environment

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UR4201 URBAN HOUSING: TYPES AND PRACTICE

OBJECTIVES

- To understand Indian and global fundamentals of housing practices.
- To understand the role of policy, agencies, finance models and resource mobilization for urban housing

UNIT I INTRODUCTION TO HOUSING

Housing scenario in India. Housing types and issues: single family, multi family, high density, community housing, micro housing, affordable housing, informal housing. Socio cultural & economic facets of housing. Urban and rural housing stock: adequacies and amenities. Demand & Supply Assessment - Factors of influence - Housing quality and its determinants. Market rate development and housing

UNIT II EVOLUTION OF HOUSING TRENDS

Industrialization, modernity, modularity and housing. Participatory housing. Charles Correa's housing and urbanization. Affordable housing case studies.

UNIT III EMERGING PRACTICES IN URBAN HOUSING

Alternate housing models: Commune, Co Housing, Cooperatives, Hyper Housing, Multi-cultural Housing, lab rooms and cyber homes, micro housing, Network housing, hybrid buildings, individual sheltered residences, bio homes for senior citizens.

UNIT IV HOUSING PROGRAMMES AND INSTITUTIONAL FRAMEWORK


UNIT V HOUSING FINANCE


TOTAL: 45 PERIODS

OUTCOMES

Student will be able to

- Understand Indian and global urban housing practices.
- Recognize the role of policies, agencies, schemes and finance models for housing

REFERENCES


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**UR 4202 URBAN FORM PERFORMANCE AND SIMULATION AUDIT**

**OBJECTIVE**

- To understand impact of climate change on urban environment
- To develop skill-sets to assess, audit urban form based on environmental design criteria

**UNIT I CLIMATOLOGY OF CONTEMPORARY CITIES**

Climate change and the city. Urban environmental design parameters: environmental planning, envelope design, solar envelope and mutual shading, airflow patterns, humidity, anthropogenic heat production, air pollution, urban morphology, urban heat island and water management.

**UNIT II URBAN FORM PERFORMANCE ASSESSMENT**


**UNIT III MICROCLIMATIC CONSIDERATIONS AND ENVIRONMENTAL STRATEGIES**


**UNIT IV ENVIRONMENTAL ASSESSMENT METHODS AND MODELLING AT URBAN SCALE**

Basics of cognitive mapping and story boarding of environmental performance. Introduction to empirical assessment. Data collection and analysis, Simulation and experimental techniques for urban form audit and assessment with software.

**UNIT V LIVE STUDY**

Cognitive, empirical and simulation assessment of a select live case study and presentation

**TOTAL: 45 PERIODS**

**OUTCOMES**

- Students will develop understanding on urban environmental challenges.
- Students will develop skill sets to assess, audit and provide environmental design guidelines for new development or revitalization of urban space.

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MH4221 GEOGRAPHICAL INFORMATION SYSTEMS FOR BUILT ENVIRONMENT L T P/S C 1 0 3 4

OBJECTIVES
- To introduce role of GIS in
- To give basic familiarity with the concepts, tools and techniques of GIS
- To give training in the application of GIS for built environment.

UNIT I INTRODUCTION TO G.I.S 9
Introduction to Geographical Information System(GIS). Defining the objectives of GIS in problems related to the macro environment. Outline of commercial and open source GIS software and introduction to basic components of GIS software. Outline of Spatial and non-spatial data. Understanding of Projection and Coordinate systems. Preparation of map with appropriate format for specific purposes.

UNIT II SPATIAL AND ATTRIBUTE DATA INPUT 18

UNIT IV SPATIAL ANALYSIS USING GIS 18

UNIT V MODELLING THE MACRO ENVIRONMENT 15
Need for modelling the macro environment for different scales and purposes. Modelling for suitability/ projects/ situations/ problems in the realm of landscape design, urban design, urban and environmental planning.

TOTAL: 60 PERIODS

OUTCOMES
- Awareness of GIS and the context of its use for different purposes.
- Knowledge of concepts, techniques, methods of GIS.
- Ability to apply GIS for specific situations/ realms involving the built environment.

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UR4211 URBAN DESIGN STUDIO II

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OBJECTIVES
- To understand urban design issues specific to contemporary cities
- To enable understanding of complex socio-economic parameters, that affect built environment and commons of cities
- To develop appropriate analytical tools and design strategies, to address unique needs and aspirations of contemporary urban living

COURSE OUTLINE
Contemporary cities are no longer defined by conventional urban form parameters, but shaped by flows: rapid urbanization via global and local flows of economy, people, networks, etc., Contemporary urban form is influenced by a distinct set of urban issues, needs and aspirations: it is imperative to ensure viable density, sustainability, essential life quotients of sense of place, belonging, identity and equity in urban development. In addition, land use needs to be seamlessly integrated with requisite infrastructure and existing communities. This studio seeks to equip students with the right tools and strategies, to propose future development scenarios for contemporary urban living and development scenarios.

PROCESS AND SESSIONAL WORK
In this studio, students will explore the unique range of land management issues that may occur in urban areas, shaped by flows - issues often related to growth patterns of the historic cores they feed off and their specific locations.

Issues to be analyzed, may include:
- Sustainable density vs. sprawl
- Infrastructure provision and integration with land use
- Concomitant land use management
- Infrastructure framework and real estate development in continuity with local communities and settlements
- Ecological planning of environmentally sensitive zones (such as flood plains of water bodies, wetlands and protected areas)
- Study of regulation and code-compliance
- Quality built environments and commons
- Safety and livability standards
- Development codes for sustainability
Students will employ diagramming-mapping tools, ground surveys, co-relational research, case studies and theories to understand these issues. They will audit, iterate and propose future development scenarios, for selected slices of emergent urban living. Proposals might include policy, program and detailed design development strategies.

Projects might include: TOD/TAD cores, livable mixed-use communities, infrastructural urbanism, tactical urbanism, co working and co-housing development, place-community-identity-equity, green and brownfield development with sustainable density, equitable urbanism etc.

TOTAL: 150 PERIODS

OUTCOMES
- Students will develop process based design and analytical frameworks to address unique urban challenges and aspirations of emergent urban lifescapes
- Students will gain awareness on interdependency of various socio-economic, spatial factors and the means to develop solutions to developing urban situations.
- Students will be familiarized with analytical frameworks and urban design strategies for contemporary cities.

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UR 4301 SUSTAINABLE URBAN DEVELOPMENT

OBJECTIVES
- To understand challenges pertaining to climate change & sustainability, in a regional urban scale and sustainable design goals
- To learn analysis tools and policy mechanisms to ensure resilient urban settlements

UNIT I CLIMATE CHANGE AND SUSTAINABILITY

UNIT II  GREEN URBANISM
Climatology of contemporary cities - Urban Heat Island - Microclimatic considerations in urban design - Eco Urbanism cores - Sponge cities.

UNIT III  SUSTAINABILITY ANALYSIS TOOLS

UNIT IV  SUSTAINABLE POLICY
UN’s initiative towards sustainable cities to be explored through Indian examples. Well planned, inclusive and integrated urban growth frameworks - sustainable transport, urban systems and public services, safety, waste management. Government of India environmental regulations for Greenfield and brownfield development, water body’s protection, coastal regulation zoning, emission and pollution controls. Energy standards for Indian cities- cases studies. Smart city projects.

UNIT V  RESILIENT URBANISM
Regional planning and technology integration to combat climate change, pandemics and global emergencies. Best practices in ecological urbanism and urban resilience - 100 resilient cities, sponge cities. Social networks and cartography. Community based environmentalism- relevant case studies

TOTAL: 45 PERIODS

OUTCOMES
- The students will gain understanding of sustainability concepts and development goals related to urban design and development.
- Students will be well versed with resilient strategies to combat global climate change and other emergencies.

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UR 4302  URBAN DESIGN: PRACTICE AND PROCESSES

OBJECTIVE
- To familiarize students with current trends in Urban design research and practice.
- To enable understanding of various stakeholders & mechanisms in urban design practice.

UNIT I  EMERGING TRENDS
Theories of community based social change, gentrification, global and local challenges facing cities, stake holders and agencies. Emerging models and its application in urban design.
UNIT II  CITY AND ITS AGENCIES
Defining the role of state and central governments and other stake holders. Local bodies and state agencies: municipal corporations - urban development boards - transport departments - housing board - Water Supply and sewerage agency - Urban Finance and Infrastructure Development agencies - Tourism department - ASI and other heritage agencies.

UNIT III  URBAN DESIGN PRACTICE

UNIT IV  TACTICAL URBANISM

UNIT V  FUTURISTIC CITIES

TOTAL: 45 PERIODS

OUTCOME
• Students will understand challenges in urban design practice.
• Students will be familiarized with issues of urban design implementation, conflict resolution and contracts.

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OBJECTIVES
Each student is required to prepare a dissertation on a subject concerning urban design and development, under the guidance of an advisor, approved by the department.

- To expose students to various thrust and emerging areas in urban design.
- To inculcate the spirit of research and collaborative ideation between related streams.
- To enhance technical writing and interdisciplinary research skills in urban design.

The objective of the dissertation is to provide an opportunity to each student to undertake in-depth and original study research in the field of their interest. It also provides an opportunity to synthesize knowledge and skillsets, acquired through theory courses and urban design studios.

Dissertation is a self-directed exploration of an urban design topic of the students' choice – a written document of the student's findings in a chosen specific area of interest within the realm of urban design through a rigorous process of original research. The subject of the dissertation may be contemporary, historical, analytical, comparative or interdisciplinary research in urban design and development (topic to be approved by departmental jury). The process would consist of choosing of an area of interest/challenge, phasing out primary studies, clarifying intent, identifying methodologies to approach and achieve the intent, exploring ways of primary data collection (reading, first hand studies, experimentation, documentation, interviews and so on), structuring the information, analyzing and interpreting it, and finally concluding with well-argued inferences. The dissertation should serve to concretize notions and ideas relating to urbanism and/or the concerns and challenges of urban design.

The study must comprise of an aim, the objectives, the scope and limitations of their dissertation, hypothesis (if any), methodology followed by extensive review of literature through references and documentation. The analysis of the work must be substantiated either empirically or through extensive arguments. A dissertation could serve as a prelude to the Thesis preparation and gives the student scope for independent study and opportunity to explore specific area of interest which will form the basis of his/her design thesis project in the next semester. The topic will have to be approved at the start of the semester and the progress of work will be reviewed periodically, culminating in a viva-voce to a jury at the end of the semester.

TOTAL: 90 PERIODS

OUTCOMES
- A dissertation book which is based on accepted norms of technical writing.
- Ability to increase depth of knowledge on an area of interest through study and analysis and finally conclude the findings.
- Ability to carry out independent research and develop an understanding leading to formation of thesis ideas.

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UR 4312

URBAN DESIGN STUDIO III

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OBJECTIVES

- This studio seeks to equip students with understanding of macro urban issues, global urban design challenges/trends and their effect on various scales of local urban intervention.
- This studio will aid students in understanding the role of sustainable, resilient, regional infrastructure systems and technology in inclusive development.

COURSE OUTLINE

Emerging technologies, global trends and exigencies rapidly transform cities: such urban transformations are at best inclusive and integrated.

This studio will examine specific global urban design challenges, which require comprehensive understanding at a global and regional scale: it will investigate the same in various local contexts such as:

- city wide natural systems, ecological zones (might include riparian corridors, lakes and water networks, coastal resilience etc.,)
- infrastructural urbanism, resilience and regional networks
- integrative governance frameworks and technology for inclusive, participatory community development
- Happiness and livability

PROCESS and sessional work

Students will analyze global trends and issues through literature review and research. They will localize their research through experiential mapping, physical mapping, diagramming, data visualization and analysis, combined with parametric analysis, GIS data sets (density analysis, spatial statistics and spatial relations to present development scenarios) and development indices, to propose regional solutions for global urban issues. They will evaluate resilient growth frameworks for inclusive, integrated urban development.

Studio projects may include but not limited to - Ecological mapping and scenarios for riparian corridors rejuvenation, Climate change and coastal city resilience, building urban resilience through revitalization of built, natural and cultural landscapes, cities-communities- happiness quotient - urban heat island and micro climate analysis - infrastructural urbanism and regional transportation studies - social-public health infrastructure and pandemic response - regional development policy - participatory and inclusive planning with technology, etc.

TOTAL: 150 PERIODS

OUTCOMES

- Students will gain understanding of multiple complex urban design issues from a global perspective and application in a regional scale
- Students will develop theoretical framework and skill sets to facilitate and propose resilient urban environments
- Students will acquire requisite skill-sets to be effective stake holders in the age of urban explosion and resilience.
REFERENCES
5. Cohen, Steven, The Sustainable City, Colombia University Press, 2017

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UR 4313 INTERNSHIP TRAINING

OBJECTIVE
- To introduce students to Urban design practice.
- To enable overall understanding of processes and stake holders in Urban Design practice.
- To understand the role of the government, urban policy, various agencies and stake-holders, market economy and various processes &stages in Urban design practice

COURSE CONTENT

The Practical Training would be done in government agencies / development firms and architecture – master planning firms. The progress of practical training shall be assessed periodically internally through submission of log books and with portfolio of work done by the students in terms of drawings, reports, etc., along with the regular progress report from the employers.

The students would be evaluated based on the criteria related to their contribution in the office some of which are given below.
- Understanding and involvement in the framing project objectives, policy perspectives and delineation of project scope and limitations.
- Understanding of funding mechanisms and economic liabilities for urban projects.
- Contribution in projects on the basis of data collection, collation and analysis, design and presentation, embedded technology, etc.
- Adherence to time schedule, overall responsibility and professional conduct.
- Ability to carry out the instructions on preparation of schematic drawings, presentation drawings, working drawings and skill in this regard.
- Ability to work as part of a team in an office and contribute to related activities.
- Ability to participate in client meetings, stake-holder consultations and public opinion discussions.
- Involvement in supervision at project site.
- Involvement/ initiative/ participation in any other aspects during the course of the training.

At the end of the Practical Training, a portfolio of work done during the period of internship along with certification from the office has to be submitted for evaluation through a viva voce examination.
OUTCOME

- Ability to understand the overall idea of the nuances of urban design practice.
- An understanding of various process and stages, stakeholders and funding mechanisms in the realm of urban design.
- Maturity in using the experience gained from internship in future academic projects, being able to effectively translate ideas into reality.

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OBJECTIVES

- To integrate the knowledge gained in the previous semesters with respect to issues/ tools of urban design.
- To understand and identify issues appropriate to a particular project or urban area, through independent thinking as well as to design in a manner appropriate to the project context.

The students will synthesize the areas of knowledge, skills and techniques acquired in the various courses of the previous semesters through a thesis project of their choice. This thesis project would be an urban design project with a strong research component. The project would desirably extend the critical position developed within the theory and studio projects as well as dissertation. The scale of the project could extend from urban infill projects with an impact on the larger urban fabric, to large-scale urban planning scenarios. The initial process shall be rigorous, incorporating background research on the topic, case studies, documentation of project issues, thorough analysis of physical, social and cultural context, tangible and intangible factors, site and building information, programming. The process would culminate in design interventions at scales appropriate to the topic. The project shall desirably have the potential to serve as a starting point for practice and/ or further research.

Students will submit a detailed proposal on their topic of interest(s). The Proposal shall be approved by the thesis review committee. The thesis project will be reviewed periodically by the review committee. At the end of the semester, the final thesis will be submitted and presented through a viva voce examination before a jury.

TOTAL: 300 PERIODS

OUTCOME

- Students would be able to integrate various contemporary/ advanced issues and techniques into the urban design process.
- Students would be able to identify and go in depth into specific and appropriate aspects relating to the realm of urban design.

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OBJECTIVES

- To understand the role of art in articulating city culture.
- To understand Cultural memory and art form associations in cities.
- To understand the way public spaces in Indian cities have been used, appropriated and conceived.
- To understand the role of art in altering meanings and perceptions of public spaces.

UNIT I PRODUCTION OF SPACES – PUBLIC SPACE

Space: relative and absolute space, production of space in books, movies and literature. Definitions of public spaces, history of public spaces, typologies and characteristics of public spaces: parks, streets, plazas, Indian bazaars, etc.

UNIT II CITY, MEANINGS AND MEMORY


UNIT III PERFORMATIVITY AND TEMPORALITY IN SPACES

Everyday activities in the city: space, body, signs, rituals. Art and the city: role of art festivals in cultural shifts. Religion, ritual space, festival and spectacle in the city. Case studies of Kala ghoda festival, Pongal fairs and festivals, arupathumoovar, santhanakoodu and velankanni chariot festival.

UNIT IV ACTIVISM AND PUBLIC SPACES


UNIT V CONSUMPTION OF URBAN SPACES


OUTCOMES

At the end of the semester, students will be able to:

- Understand the role of art in city culture, its perceptions and the collective memory.
- Critically evaluate contemporary public space from theoretical, social, experiential and everyday perspectives and conceptualize alternate narratives.
- Communicate their ideas about public space effectively using a variety of means such as writing, speaking and multimedia presentations.

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UR 4072 QUANTITATIVE TECHNIQUES AND DATA REPRESENTATION

OBJECTIVES

- To acquire knowledge in statistical and numerical techniques and to take up quantitative analysis and research
- To provide in-depth understanding of various research methods in the field of planning and urban design

UNIT I STATISTICAL METHODS

Data: Statistical and Numerical data. Types of data measurement scale – Nominal, ordinal, interval, ratio, Variables. Discrete, continuous- Data collection, coding and decoding, methods, tabulation and graphic presentation of data. Frequency distribution. Measures of central tendency: mean, median, mode. Measures of dispersion, Correlation and Regression. Introduction to spread sheets and statistical software – SPSS, Data Fit etc.

UNIT II HYPOTHESIS TESTING

Sampling Distribution. Test based on Normal, t, Chi-square and F-Distributions. Discrete random variables, Completely Randomized Design. Randomized Block Design. Latin Square Design. ANOVA.

UNIT III QUANTITATIVE TECHNIQUES IN PLANNING & DEMOGRAPHIC ANALYSIS

Elementary association models and decision making. Index numbers, weighted and un-weighted index numbers. Application of index number in spatial planning. Calculation techniques of vital events. Methods of demography and population studies, population projections, introduction to Census data and sampling Techniques.

UNIT IV FORECASTING AND TIME SERIES ANALYSIS

Time series forecasting- line chart, curve fitting. Function approximation – approximation theory and numerical analysis, interpolation, extrapolation, pattern recognition, econometrics, segmentation, Univariate linear and nonlinear measures and bivariate measures. Visualization Charts, Braided graphs, Line charts, Slope graphs, Gap Chart, Horizon graphs, reduced line chart (small multiples), Silhouette graph, Circular silhouette graph etc.

UNIT V DATA REPRESENTATION

Data Ideograms and the Language of Symbols- Braille, Morse Code, Sign, and Gesture Data Abstraction, Task Abstraction, Common Visualization Idioms such as Bar Chart, Pie Chart and Coxcomb Plot, Line Chart, Area Chart etc., -Spatial data, networks, trees - Making Maps-encoding, Stacked & Grouped data, Manipulate View, Facet into Multiple Views, Case Studies in Visualization and Information tools

TOTAL: 45 PERIODS

OUTCOMES

- The students will be exposed to data analysis techniques and will be equipped with necessary analytical skills to pursue quantitative research.
- The student will develop necessary skills to identify and interpret issues based on research inquiry methods.
- The student will learn how to write and publish research work in journals
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MH4073 SOFT SKILLS L T P/S C 2 0 1 3

OBJECTIVES
- To give introduction to the soft skills and personality
- To give understanding of and enable better interpersonal communication.
- To apprise of aspects of organizational communication and develop skill in it.
- To enable skill in reading and writing.

UNIT I INTRODUCTION TO SOFT SKILLS AND PERSONALITY 9

UNIT II INTERPERSONAL COMMUNICATION 9

UNIT III ORGANISATIONAL COMMUNICATION 12
UNIT IV  ADVANCED READING AND WRITING SKILLS


OUTCOME

- Awareness of importance of soft skills.
- Knowledge and skill in interpersonal communication.
- Knowledge and skill in organizational communication.
- Competency in reading and writing.

REFERENCES

1. Soft Skills, K.Alex, S.Chand, 2010

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UR 4001 CITY FORM DEVELOPMENT IN ASIA L T P/S C 3 0 0 3

OBJECTIVES

- Understanding factors that shaped morphology of Asia.
- Understanding future trajectories of mega cities of Asia.

UNIT I  WEST ASIA


UNIT II  SOUTH ASIA

UNIT III CENTRAL ASIA

UNIT IV EAST ASIA

UNIT V MEGA CITIES AND FUTURISTIC URBANISM
Case studies of key urban challenges, policies and prospects of Megacities of Asia: Shanghai, Mumbai, Singapore, Hong Kong, Colombo, Dubai, NCR (Delhi, Gurgaon, Noida).

TOTAL: 45 PERIODS

OUTCOMES
- Students will gain detailed understanding of socio political shifts that shaped urban form of Asia.
- Students will understand transformation of Asian cities during Colonial, Post-colonial & globalization era and future challenges of mega cities of Asia.

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UR 4002 HUMAN SETTLEMENTS L T P/S C
3 0 0 3

OBJECTIVES
- To provide awareness on evolution of settlements from various eras & categories.
- To make students understand the importance of land Economics as a development tool.
- To familiarize students on the definitions & patterns of human settlements.
UNIT I  INTRODUCTION
Ekistics- Doxiadis, Human Settlements: Terminologies and definitions types, patterns, indicators of the Settlements, Chronological pattern of settlements, settlements and basic services anthropology and Ethnic groups. Determinants of settlement form: mobility, socio cultural, climate, technology, etc.,

UNIT II  EVOLUTION OF SETTLEMENTS

UNIT III  LAND ECONOMICS & SURVEYS

UNIT IV  URBAN RENEWAL AND PLANNING TECHNIQUES

UNIT V  LEGISLATION, BYE LAWS & NEW HORIZONS

TOTAL :45 PERIODS

OUTCOMES
- Ability to gain understanding on the inter-relation between human settlements and social dynamics.
- An understanding on the nature of shaping parameters of human settlements.
- An understanding on the techniques, principles and concepts for the new horizon.

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OBJECTIVES

- To enable students’ understanding of quantitative & qualitative aspects of urban resources and infrastructure design & management.
- To familiarize students with need, demand & supply mechanisms of physical and social infrastructure.
- To enable understanding of resilient city infrastructure.

UNIT I  WATER SYSTEMS


UNIT II  URBAN ENERGY


UNIT III  PHYSICAL & SOCIAL INFRASTRUCTURE


UNIT IV  TRANSPORTATION

Urban mass transportation systems: urban transit problems, travel demand, types of transit systems, public, private, para-transit transport, mass and rapid transit systems, BRTS and Metro rails. IRC standards, UTTIPEC, ITDP etc.

UNIT IV  RESILIENT CITY INFRASTRUCTURE


TOTAL: 45 PERIODS

OUTCOMES

- Student will gain knowledge of urban Infrastructure design, implementation and management.
- Students will be familiarized with urban infrastructure assessment techniques, need, demand and supply analysis
- Students will learn about urban infrastructure policies and agencies.

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OBJECTIVES

- To train students in using simulation and coding, to understand and re-imagine urban scenarios
- To familiarize students with complex automation algorithms in big data crunching and urban projections

UNIT I  INTRODUCTION  6
Role of Computational tools in understanding urban complexity- augmenting urban design work flows - streamlining complex and multidimensional planning tasks

UNIT II  APPLICATION OF COMPUTATIONAL TOOLS  12

UNIT III  OPEN SOURCE CODING TOOLS  18
Use of open source coding tools for Spatial data analysis, land use planning scenarios, density, place making, spatial econometrics, spatial demographics, Urban energy systems, Disaster management, TOD, livability, urban growth index, network analysis, urban mobility, urban accessibility, environmental modelling, collaborative mapping applications and policy compliance

UNIT IV  CASE STUDIES  9
Case studies and best practices in Urban design Projects using simulation and coding

TOTAL: 45 PERIODS

OUTCOMES

- To learn to automate urban development scenarios
- To deploy algorithms and coding to propose innovative solutions in urban design

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OBJECTIVES

- To introduce the principles of economics, public finance and influence of market forces on urban planning
- To understand the role of sociology in planning and housing.
- To familiarize students with policies, urban management issues, funding agencies, fiscal tools and templates
UNIT I  URBAN ECONOMICS

UNIT II  URBAN SOCIOLOGY

UNIT III  SOCIAL ASPECTS OF URBAN FORM

UNIT IV  SOCIAL IMPLICATIONS OF HOUSING AND PUBLIC POLICY
Affordable housing: national income estimate—planning need, issues and five-year plans—national housing policy—Impact of speculative urbanism—welfare schemes—equitable and inclusive housing—URDPFI guidelines—public policy and real estate management—Role of UNCHS.

UNIT V  DEVELOPMENT MANAGEMENT AND FINANCE
Key issues in urban development and management. National goals, policy and management strategies for urban planning projects—recommendations by national committees and task forces on development management. Role of national and international agencies for mobilization and management of urban development funds and resources. Evolution and structure of urban development bodies. Land based fiscal tools: area based development charges, municipal bonds, levies and betterment charges. Case studies of innovative and successful development management and finance models from South Asian cities and alternate models of economic development.

TOTAL: 45 PERIODS

OUTCOMES
• After successful completion of this course, student will be able to understand the interrelationship of urban economics, sociology and housing
• Students will be aware of urban management policies, strategies and finance models in urban planning.

REFERENCES
1. Narendra K. Singhi, Theory And Ideology In Indian Sociology, RewatPublication, Jaipur and New Delhi

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OBJECTIVES
- To introduce general concepts of learning theory.
- To help understand research related to theories of learning.
- To enable opportunity to engage in critical analysis of theories through discussions.

UNIT I  INTRODUCTION

UNIT II  EDUCATIONAL PSYCHOLOGY

UNIT III  UNDERSTANDING LEARNER STAGES OF HUMAN DEVELOPMENT

UNIT IV  LEARNING AND MOTIVATION

UNIT V  APPRECIATION AND CRITICISM
Ability of Understanding – appreciation, advocacy, descriptive, evaluative, interpretative and other evaluation criteria and methodology. Development of Design Thoughts-understanding, developing and expressing a design thought in its right perspective purpose, manner and mode. Theories and models for experiencing architecture.

TOTAL: 45 PERIODS

COURSE OUTCOMES

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<th>Knowledge about major social and psychological processes involved in learning and development in an educational setting.</th>
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<td>Ability to engage in knowledgeable and productive dialogue with colleagues about human learning, development, and educational practice.</td>
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REFERENCES
**CO -PO Mapping - Psychology of Learning and Development**

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**UR 4006**

**URBAN LANDSCAPES**

**L T P/SC**

3 0 0 3

**OBJECTIVES**

- The course seeks to familiarize students with issues of urban ecology and landscape and address the same
- To understand and address the issues of derelict urban pockets at different scale
- To understand the various assessment and planning strategies in using landscape urbanism concept in addressing ecological crisis.

**UNIT I**

**INTRODUCTION TO LANDSCAPE**

- Introduction to landscape and ecology - purpose, domain and context. Understanding ecological concepts like population growth, regulation, carrying capacity, stability and resilience of ecosystem.
- Ecosystem degradation. City and pattern: hierarchy of streets and squares, spatial organization and land use, road networks and basic services, Open spaces within urban environment. Introduction to landscape ecology: landforms and landscape processes, pattern and structure of landscapes, concepts of patch, corridor and matrix, landscape dynamics and function.

**UNIT II**

**LANDSCAPE AND URBANISM**


**UNIT III**

**PLANNING STRATEGIES**

- Influence of landscape design on our physical, visual environment. Tool to utilize the site resources, site analysis for larger developments. Planting strategies for various habitats: wooded areas, grassland and meadows, wetlands, coastal edges, waterside, etc. Wilderness areas. Site planning for larger developments: new towns and urban extensions, developments for tourism and eco-tourism. Case studies on landscape regional planning, policies - contemporary urban landscape issues at national and international levels. Role of IUCN and other bodies.

**UNIT IV**

**LANDSCAPE ASSESSMENT**


**UNIT V**

**DERELICT LANDS**

- Derelict landscapes – Brownfields. Reclamation and restoration. Conservation and preservation of ecological fragile areas such as wetlands, creeks etc. National and International case studies

**TOTAL: 45 PERIODS**
OUTCOMES
- Students will be able to address ecological issues using landscape urbanism framework.
- They will be aware of assessment tools, planning strategies for urban landscapes.
- They will be aware on the adaptive reuse of the left over/ derelict urban pockets in different scale.

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UR 4007 URBAN TRANSPORTATION SYSTEMS L T P/S C 3 0 0 3

OBJECTIVES
- To gain specialized knowledge in urban transportation systems, techniques and their integration with built environment.
- To understand the importance of transit-oriented development.
- To understand the various standards, norms & assessment methods

UNIT I INTRODUCTION
Urban Transportation systems. Classification of transport systems. Technical characteristics of transport modes and systems. The nature of demand and supply of transport services-scope of urban transport planning. Interdependency of transport & land use. Approaches in transportation planning.

UNIT II CONCEPT OF MOBILITY

UNIT III STAGES IN URBAN TRANSPORTATION
Trip Assignment: Definition, Applications, Resistance to travel, Minimum travel path tree. Assignment Techniques- All- Or- Nothing, Multiple Route, Capacity Restraint, Diversion Curves.
UNIT IV MODAL SPLIT

UNIT V TRANSPORTATION & PARKING NORMS
Parking in transport system, parking surveys, parking norms & 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.

TOTAL: 45 PERIODS

OUTCOMES
- Students will gain knowledge of inter dynamics between transportation systems and urban planning.
- Students will learn the importance of transit-oriented development.
- Students will learn about various surveys and norms related to transportation systems.

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UR4008 DISASTER PREVENTION AND MITIGATION IN CITIES L T P/S C 3 0 0 3

OBJECTIVES
- To understand the importance of Disaster Risk Mitigation and Reduction.
- To understand the policies and role of various agencies in disaster mitigation.
- To understand the importance of community participation in DRR.
- Understanding the need for risk assessment, vulnerability analysis and mitigation.

UNIT I INTRODUCTION

UNIT II URBAN RISK IMPACT: ISSUES & CONCERNS
UNIT III  ACTION PLAN AND STRATEGIES
9

UNIT IV  CAPACITY BUILDING ON DISASTER RISK MANAGEMENT
9
Risk identification, assessment and vulnerability analysis and mitigation strategies of urban areas. National and international case studies.

UNIT V  FRAMEWORK FOR BUILDING RESILIENT CITIES
9
Introduction to policies and frameworks for urban risk management. Community participation in risk management. Use of technology in disaster mitigation and management. Role of various agencies like NDMA, NIUA, and SIUD etc.

OUTCOMES
- Students will be able to undertake risk assessment, vulnerability analysis of urban areas
- Students will be aware of policies, framework and agencies related to disaster mitigation.
- Students will develop an understanding of action plan & capacity building of communities.

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1- low, 2-medium, 3-high, '-'- no correlation

MH4075  THEORY OF ARCHITECTURAL EDUCATION

L T P/S C
3 0 0 3

OBJECTIVES
- To give familiarity about theories of architectural education.
- To introduce the idea of cognition development.
- To give familiarity about ways of thinking and learning with respect to architecture.

UNIT I  INTRODUCTION
7
Overview of the important aspects of the discipline of architecture. Nature of Architectural Education based on the nature of the discipline of architecture.

UNIT II  TOOLS/TECHNIQUES TO TEACH ARCHITECTURE
9
Models and methods of Teaching. Teaching Aids In Architecture Education. Types of Teaching Aids- Visual, Audio, etc., Learning by Doing, reflection, exploring, arguing, incidentally. Case-Based Teaching. Advanced Organizer, Concept attainment model, Simulations.

UNIT III  SYNECTICS AS A MODEL OF TEACHING.
9
The essence of creativity in synectics. Use of synectics in the design studio. Techniques of teaching-learning: Maxims of teaching and its application to subjects of architecture. Concept mapping, creating concept maps. Basic aspects of classroom management.
UNIT IV STUDENT DEVELOPMENT

UNIT V LEARNING IN ARCHITECTURE DESIGN STUDIO
Development of Critical, Creative and Pragmatic Thinking in Architectural Design Studio. Bloom Taxonomy in Design Studio. Qualities which can be attained at various stages in Architectural Design Studio.

TOTAL: 45 PERIODS

COURSE OUTCOME

<table>
<thead>
<tr>
<th>CO</th>
<th>Description</th>
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<tbody>
<tr>
<td>CO1</td>
<td>Awareness of the importance of contextual excellence in architectural design and methods for the same.</td>
</tr>
<tr>
<td>CO2</td>
<td>Knowledge about and ability to integrate interdisciplinary and cognitive aspects of learning, teaching and development.</td>
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</tbody>
</table>

REFERENCES

CO -PO Mapping - Theory of Architectural Education

<table>
<thead>
<tr>
<th>Course Outcome (CO)</th>
<th>Programme Outcome (POs)</th>
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<tr>
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</table>

TOTAL: 45 PERIODS
AUDIT COURSES

AX4091 ENGLISH FOR RESEARCH PAPER WRITING L T P C 2 0 0 0

OBJECTIVES

- Teach how to improve writing skills and level of readability
- Tell about what to write in each section
- Summarize the skills needed when writing a Title
- Infer the skills needed when writing the Conclusion
- Ensure the quality of paper at very first-time submission

UNIT I  INTRODUCTION TO RESEARCH PAPER WRITING 6
Planning and Preparation, Word Order, breaking up long sentences, Structuring Paragraphs and Sentences, Being Concise and Removing Redundancy, Avoiding Ambiguity and Vagueness

UNIT II  PRESENTATION SKILLS 6

UNIT III  TITLE WRITING SKILLS 6
Key skills are needed when writing a Title, key skills are needed when writing an Abstract, key skills are needed when writing an Introduction, skills needed when writing a Review of the Literature, Methods, Results, Discussion, Conclusions, The Final Check

UNIT IV  RESULT WRITING SKILLS 6
Skills are needed when writing the Methods, skills needed when writing the Results, skills are needed when writing the Discussion, skills are needed when writing the Conclusions

UNIT V  VERIFICATION SKILLS 6
Useful phrases, checking Plagiarism, how to ensure paper is as good as it could possibly be the first-time submission

TOTAL: 30 PERIODS

OUTCOMES

CO1 – Understand that how to improve your writing skills and level of readability
CO2 – Learn about what to write in each section
CO3 – Understand the skills needed when writing a Title
CO4 – Understand the skills needed when writing the Conclusion
CO5 – Ensure the good quality of paper at very first-time submission

REFERENCES

OBJECTIVES
- Summarize basics of disaster
- Explain a critical understanding of key concepts in disaster risk reduction and humanitarian response.
- Illustrate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
- Describe an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
- Develop the strengths and weaknesses of disaster management approaches

UNIT I INTRODUCTION
Disaster: Definition, Factors and Significance; Difference between Hazard and Disaster; Natural and Manmade Disasters: Difference, Nature, Types and Magnitude.

UNIT II REPERCUSSIONS OF DISASTERS AND HAZARDS

UNIT III DISASTER PRONE AREAS IN INDIA
Study of Seismic Zones; Areas Prone to Floods and Droughts, Landslides and Avalanches; Areas Prone to Cyclonic and Coastal Hazards with Special Reference To Tsunami; Post-Disaster Diseases and Epidemics

UNIT IV DISASTER PREPAREDNESS AND MANAGEMENT
Preparedness: Monitoring of Phenomena Triggering a Disaster or Hazard; Evaluation of Risk: Application of Remote Sensing, Data from Meteorological and Other Agencies, Media Reports: Governmental and Community Preparedness.

UNIT V RISK ASSESSMENT
Disaster Risk: Concept and Elements, Disaster Risk Reduction, Global and National Disaster Risk Situation. Techniques of Risk Assessment, Global Co-Operation in Risk Assessment and Warning, People’s Participation in Risk Assessment, Strategies for Survival

TOTAL: 30 PERIODS

OUTCOMES
CO1: Ability to summarize basics of disaster
CO2: Ability to explain a critical understanding of key concepts in disaster risk reduction and humanitarian response.
CO3: Ability to illustrate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
CO4: Ability to describe an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
CO5: Ability to develop the strengths and weaknesses of disaster management approaches

REFERENCES
OBJECTIVES
Students will be able to:

- Understand the premises informing the twin themes of liberty and freedom from a civil rights perspective.
- To address the growth of Indian opinion regarding modern Indian intellectuals’ constitutional
- Role and entitlement to civil and economic rights as well as the emergence nationhood in the early years of Indian nationalism.
- To address the role of socialism in India after the commencement of the Bolshevik Revolution in 1917 and its impact on the initial drafting of the Indian Constitution.

UNIT I  HISTORY OF MAKING OF THE INDIAN CONSTITUTION
History, Drafting Committee, (Composition & Working)

UNIT II  PHILOSOPHY OF THE INDIAN CONSTITUTION
Preamble, Salient Features

UNIT III CONTOURS OF CONSTITUTIONAL RIGHTS AND DUTIES

UNIT IV ORGANS OF GOVERNANCE
Parliament, Composition, Qualifications and Disqualifications, Powers and Functions, Executive, President, Governor, Council of Ministers, Judiciary, Appointment and Transfer of Judges, Qualifications, Powers and Functions.

UNIT V LOCAL ADMINISTRATION

UNIT VI ELECTION COMMISSION
Election Commission: Role and Functioning. Chief Election Commissioner and Election Commissioners - Institute and Bodies for the welfare of SC/ST/OBC and women.

TOTAL: 30 PERIODS

OUTCOMES
Students will be able to:

- Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival of Gandhi in Indian politics.
- Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India.
- Discuss the circumstances surrounding the foundation of the Congress Socialist Party [CSP] under the leadership of Jawaharlal Nehru and the eventual failure of the proposal of direct elections through adult suffrage in the Indian Constitution.
- Discuss the passage of the Hindu Code Bill of 1956.
SUGGESTED READING
1. The Constitution of India, 1950 (Bare Act), Government Publication.

UNIT I
1. The Constitution of India, 1950 (Bare Act), Government Publication.

AX4094  தமிழ்இலக்கியம்

UNIT II
1. அந்தநூறு தமிழின் துவக்கநூல்தொல்கொப்பியம்
  - உருவ, தள்ள, பார்த்த
2. பி.வி.சிகித்தஸ் - தொடம்பகிரகம்
  - இலைக்குழு, வியட்சகூதி, கிறித்தம், துணைக்கிரோட்ட
3. புறநூறு (95, 195)
  - சமையல்நிதிகள்களால்

UNIT III
1. கண்ணூர் தமிழிலக்கியம்
  - சிலப்பதிகூறவழக்கு
2. சிறப்புபக்கூறு
  - இலைக்குழு, சிறுபஞ்சம், திரிகடுகம், கொங்கலைக்குத்தியால்
3. புறநூறு
  - சிறுபஞ்சம்

UNIT IV
1. அருளநூறு தமிழிலக்கியம்
  - பொரிமுல்கலக்குத்தொன்று
2. கூறுபொறுப்பால்
  - அசதுபஞ்சான்பால்குண்டியல்
3. சிறுபஞ்சம் (617, 618)
  - உருவ, தள்ள, பார்த்த
4. புறநூறு
  - சிறுபஞ்சம்
UNIT V  தமிழிலியுள்ளது
1. வாழ்த்துக்கற்ற கலா
   - தமிழிலாம் முதலியலம்
   - தமிழிலாம் முதலியலம்
   - கணினி முதலியலம்
   - பாலியல் முதலியலம்
   - தொடர்
2. தமிழுக்கககுறிப்பிட்டுத்தமிழியலம்
3. சம்பந்தமலகரம் புது தமிழியலம்
4. பெர்னலமலகரம் புது தமிழியலம் தமிழ் கல்வியலம்
5. முறையுட்பாயம் கலா
6. இலககசத்காரம் கலா
7. கலக்குறிப்பிட்டுத்தமிழியலம்

TOTAL : 30 PERIODS

தமிழியியுள்ளது / புது கலா
1. தமிழ்வியல்கள் பிராந்தியக் கல்வியுக்த பானை பலகத்தறித்தைக் கல்வியுக்த பானை பலகத்தறித்தை (Tamil Virtual University)- www.tamilvu.org
2. தமிழ்வியல்கள் பிராந்தியக் கல்வியுக்த பானை பலகத்தறித்தை (Tamil Wikipedia)-https://ta.wikipedia.org
3. தமிழ்வியல்கள் பிராந்தியக் கல்வியுக்த பானை பலகத்தறித்தை
4. பயணியியல்கள் பிராந்தியக் கல்வியுக்த பானை பலகத்தறித்தை, தினமலர்
5. தமிழ்கல்வியுக்த பிராந்தியக் கல்வியுக்த பானை பலகத்தறித்தை (thamilvalarchithurai.com)
6. முறையுட்பாயம் கலா பிராந்தியக் கல்வியுக்த பானை, தினமலர்