GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA IN ARCHITECTURE

SIXTH SEMESTER SYLLABUS (W.E.F.JANUARY 2016)

SUBJECT NAME – DESIGN STUDIO VI

SUBJECT CODE – 3366201

FOCUS:

Learn about reading and documenting urban contexts and to understand the idea of urban space. To understand the difference between urban designs as opposed to urban development. To understand the role of architecture in shaping urban fabric and create design which fits into urban fabric.. To understand the needs of privacy, community spaces, efficiency of open spaces and idea of extended living areas.

CONTENTS:

- Studio projects shall be based on considering the principals involved in community architecture.
- Concepts of sustainable architecture and energy efficient buildings reuse recycled and recharging resources such as water, solar bio-resources; can be introduced in the studio design. The design can also be sensitive to the needs of disabled, aged people and children.
- The role of urban space as a public realm needs to create such spaces as extension of private domain. The public building shall be investigated and shall become one of the architectural goals of the project. Some of the prerequisites of the project shall be;
    - Multiple functions.
    - Public access to majority of the space,
    - Large-gathering areas, which are open and extendable to the immediate urban context
    - Analyzing structural feasibility of the project to adopt various structural systems for spanning.
- High-rise building Projects like transport interchanges, large retail areas with entertainment areas, transport terminals with commercial areas, performing art center with museums and such multiple functions shall be taken.
- E.g. of projects: Large group housing with other amenities, large retail areas with entertainment areas, Bus Terminal, Sports terminals, Community areas etc.
- One major project and one mini project and time problem to be tackled in the semester. Case study, data collection and literature survey should be the part of the same. Design proposals should be supported with block model. Detailing of architectural features should be attempted.

SUGGESTED BOOKS

- Garden Cities: Theory & Practice of Agrarian Urbanism By Andrés Duany and Duany Plater-Zyberk
- By the City, For the City: An Atlas of Possibility for the Future of New York by The Institute for Urban Design Multi-Story Books
- Pocket Neighborhoods: Creating Small-Scale Community in a Large-Scale World by Ross Chapin Taunton Press,

SUBJECT NAME – INTERIOR ARCHITECTURE

SUBJECT CODE – 3366202

FOCUS:

To introduce the students to the discipline of Interior Architecture and to develop basic skills required for handling simple interior design projects.

CONTENTS:

- Designing the size and form of interior spaces using user – activity analysis and anthropometrics, effect of enclosure, fenestration, color and lighting on perception of interior space, application of scale, proportion to enhance the quality of interior space, psychological effects of space.
- Elements of interior space – design for comfort – climatic comfort, natural and artificial lighting, air conditioning and acoustics. Services – air conditioning ducts, electrical wiring, water supply and removal of waste water, elements of furnishing and surface treatment and the need and scope.
- Applied decoration – color, texture, plane and fixtures in relation to emphasis of background of space through change of levels and structural form modulation through artificial and natural lighting, emphasis of focal points and unity in interior design.
- Furniture design – Role of furniture, ergonomic factors of furniture design and materials used. Matching furniture to decorative style, fitted furniture, its characteristics and application. Functional classification of space, barrier free design.
- Surface treatment– decorative material for ceiling, walls, floors drapery upholstery for openings and furniture respectively and matching them with overall color scheme and composition, source and collection of information, elements of indoor plants and interior landscape and use of water.
- Interior landscaping; Plant species, specification, etc. texture, height grouping and layout.
- Study of different materials used in interior design like steel, glass, pop, aluminum, timber, fabrics, plastic, composite materials, etc.
- The class work shall include two interior design projects (one major and one minor) to be handled with complete design, detailing furniture layout, specification for the materials, and their application. The projects shall relate to residential, commercial educational or interiors of other public spaces of smaller scale.
    - Collection of samples,
    - Study & submission of portfolios relating to individual aspect like furniture, accessories, water, special lighting schemes and upholstery
- Use of hand skills and computers should be encouraged equally.

SUGGESTED BOOKS

- Human Dimension and Interior Space by PaneroJulious&Zelink Martin
- Design of Interior Environment by Alexander and Mercourt.

SUBJECT NAME –URBAN DESIGN AND PLANNING

SUBJECT CODE – 3366203

FOCUS:

Architecture, community/neighborhood design, urban design and urban planning are connected hence architecture, is not an isolated private statement. Rather, it is at once a public (urban) act and a reflection of our understanding of the world at any given moment: i.e., what it might be. It will operate on the premise that public spaces are important to the livability of a city. The public realm quite literally provides the platform for its arts and culture to exist and adds to the desirability of its inhabitants. Developing an understanding of urban context with its schematic abstraction and contemporary manifestations

CONTENTS:

- Evolution of human settlements & Interpretation of urban forms – historic determinants and settlement types; an overview of landmark developments in conceptual theories related to settlement patterns and the resulting dynamics of changing urban forms and interpretation of urban form as manifested in literature, arts, technology and politics during different stages of time.
- Understanding the term Urban: Definitions and Approaches, looking at how various theorists have defined / understood the "urban" or the "city" as an object of investigation.
- Urbanism & New Urbanism
- Understanding the term Urban Design and inter-relation of Architecture and Urban Design.
- 'Urban Design' as a focus on physical improvement of the public environment.
- Public Realm, definition and understanding the design of Public realm
- City Scape / Town Scape, understanding and analysis
- Understanding of Terminologies such as Tissue, Block, Grains, Porosity, Typology, District, Landmarks.
- Contemporary Planning Process & Mechanisms –significance of land use planning, Development Plan & various methods of managing land as TP Schemes etc.
- Literature and / or Live Case-studies in Urban Design, Book Reviews, Various Site Studies for Appreciation of Changing City Form as a palimpsest of changing political, social and anthropological events.
- Planning of new towns, National policies in urbanizations

SUGGESTED BOOKS

- Architecture of Town & Cities, Paul Spreiregen
- Image of the City, Kevin Lynch
- Good City Form,, Kevin Lynch
- Town & Squares, Paul Zucker
- Pattern Language, Christopher Alexander
- Life & Death of Great American Cities, Jane Jacobs
- The Architecture of Towns and Cities, Paul D Spreiregin
- Design of Cities, Edmund N Bacon,

- Timeless Way of Building, Christopher Alexander
- Pattern Language, Christopher Alexander
- Human Aspects of Urban Form Amos Rapoport
- Emerging concepts in Urban Space Design, Geoffrey Broadbent,

SUBJECT NAME – HERITAGE CONSERVATION AND PRESERVATION

SUBJECT CODE – 3366204

FOCUS:

The subject aims at an understanding for scholastic and professional approach to architectural conservation as an attitude to development.

CONTENTS:

- Introduction to Programming of Architectural Conservation Projects –
    - Appreciation and Identification of Values related to Heritage and Culture – their Interpretation and Presentation; Concept of Ethics and Authenticity; Degrees of
    - Intervention; basic Principles of Conservation viz., Preservation, Restoration, Reuse, Rehabilitation, Regeneration, Revitalization, Up gradation, Redevelopment
- Emergence of Conservation as a Subject and as a Profession –
    - History of ASI;
    - History of Conservation Movement in UK, Italy; History of Conservation Movement in India.
- Global and National Heritage Management Notions – Conservation Legislation in India vis-à-vis that in Europe; World Heritage Sites – recognition criteria, status after inscription; ICOMOS Charters e.g., Venice, Burra, Florence; Pilot Projects of Architectural Conservation in India and Europe
- History, Theory and Criticism of Architecture – Re-introduced as a view point to understand built heritage of India.
- Developing an appropriate methodology for qualitative assessment of a heritage resource and suggest relevant strategies for interpretation and presentation;
- Critical Judgment of architecture through traditional, historical and contemporary examples and writings.

SUGGESTED BOOKS

- Guidelines for Conservation – A Technical Manual, INTACH, Feilden, Bernard
- Concepts and Responses, Kapila Vatsayayan, IGNCA, N Delhi, 1992
- Conservation and Planning, Allan Dobby
- Building Conservation and Philosophy, John Earl

SUBJECT NAME – BUILDING BYELAWS AND PROFESSIONAL PRACTICE

SUBJECT CODE – 3366205

FOCUS:

Develop understanding of building bye laws and its implementation in reference to building design. To develop an understanding of basic professional skills to practice of various type of projects and its complexity.

CONTENTS:

- BUILDINGY BYE LAWS
    - Zoning of areas: residential, institutional, industrial agricultural entertainment etc
    - Introduction to city, town and village bye laws,
    - Evolution of GDCR (Mumbai municipal act, town planning act and GDCR)
    - Need of bye laws
    - Other prevailing laws (environment law etc)
- PROFESSIONAL PRACTICE
    - Role and responsibilities of a professional
    - Prevailing pattern of professional practice
    - Comparison and inter relationship with other professionals and professional bodies
    - Various professional associations and registering body; their responsibilities, detail understanding of professional ethics; fee structure
    - Office organization and management skills
    - Detail understanding of office day to day responsibilities towards staff and other government bodies
    - Understanding of contract and its management, site supervision, Role, responsibilities, liabilities

SUGGESTED BOOKS

- GDCR
- Hand book on professional practice by council of architecture, New Delhi
- Hand book on professional practice by Indian Institute of Architecture
- BPMC Act
- GTP and GDCR rules
- Professional practice with Elements of Estimating, Valuation contract and
- Arbitration By Dr. Roshan H. Namavati
- Estimating and costing in Civil Engineering Theory and Practice by B.N. Datta

SUBJECT NAME – POST OCCUPANCY EVALUATION

SUBJECT CODE – 3366206

FOCUS:

Post occupancy evaluation/the proposed course focuses on the process of evaluating buildings in a systematic and rigorous manner after they have been built and occupied for some time. The principle aims of this unit are to develop students' knowledge, skills and capacity to understand, design, and implement effective and strategic post-occupancy evaluations (POE) in various facility contexts.

CONTENTS:

- POEs focus on building occupants and their needs, and thus they provide insights into the consequences of past design performance. This knowledge forms a sound basis for creating better buildings in the future.
- The POE study will consist of evaluation techniques using scientific methods to determine the effects of a design/treatment or program, especially with respect to the intended effects. The students will be exposed to various methods to evaluate building performance, the building process and the performance concept, elements of building performance and the performance evaluation research framework.
- A solid understanding of the conceptual frameworks underlying different types of post-occupancy evaluation. An ability to strategically plan and design post-occupancy evaluations that address specific organizational objectives or needs
- A broad awareness of the scope of different methodologies applicable to POEs, and the capacity to develop and implement two methods within a POE project. The capacity to efficiently and meaningfully analyze the results from a POE, apply these results the strategic issue the POE is seeks to address, and develop a concise report which communicates the POE process and strategic recommendations.

SUGGESTED BOOKS

- What are post Occupancy evaluation? A layman's guide, by Bechtel R.
- Building diagnostics: A conceptual framework by Building Research Board, national academy press, Washington.
- Evaluating facilities: a practical approach to Post Occupancy evaluation, by Parshal S.A. and W. M. Pena
- Total Workplace Performance: Rethinking the Office Environment. Ottawa Aronoff, Stanley, & Kaplan, Audrey.: WDL Publications, 1995