

## COURSE STRUCTURE – NINTH SEMESTER

S. No.	Paper Code	Paper Title	L	S	P	Credits	Marks	ESE (*)	Duration of exam (HRS)
<b>STUDIO COURSES</b>									
1	BAP 501	Architectural Design – Urban Studio	-	10	-	10	100	VV	-
2	BAP 503	Introduction to Advanced Construction Systems	-	3	-	3	100	VV	-
<b>THEORY COURSES</b>									
3	BAP 505	Introduction to Landscape Architecture	2	-	-	2	100	WR	3
4	BAP 507	Town Planning	2	-	-	2	100	WR	3
<b>PRACTICAL SUBJECTS</b>									
5	BAP 509	Disaster Management	-	-	3	2	100	VV	-
6	BAP 511	Dissertation	-	-	3	2	100	VV	-
7	BAP 513	Urban Issues	-	-	2	1	100	VV	-
<b>ELECTIVE COURSES</b>									
8	BAP 515	Ephemeral Architecture	-	-	3	2	100	VV	-
9	BAP 517	Interior Design							
10	BAP 519	Open Elective							
<b>Total</b>			<b>4</b>	<b>13</b>	<b>11</b>	<b>24</b>			

(\*) Please see below for abbreviations:

VV – Viva Voce  
WR – Written Test

<b>ARCHITECTURAL DESIGN- URBAN STUDIO</b>			
<b>Course Code:</b>	<b>BAP 501</b>	<b>Credits:</b>	<b>10</b>
<b>No. of Studio Hrs/Week:</b>	<b>10</b>	<b>Mid Sem Exam Hours:</b>	<b>-</b>
<b>Total No. of Studio Hours:</b>	<b>160</b>	<b>End Sem Exam Hours:</b>	<b>VV</b>

### **INTRODUCTION**

The studio is the introduction of the student to the realm of urban design. The studio may also familiarize the student with urban design terminologies, methods of surveys and site analysis.

### **AIM**

To create an understanding of the role of various physical, social, economic and infrastructural components and decision making processes; the contribution of related disciplines associated with the city development.

### **OBJECTIVES**

- To provide explanations of Urban Design terminologies, definitions and methodologies for shaping and understanding of urban form;
- To develop skills that enables the student to deal with large sites in a comprehensive manner

### **LEARNING OUTCOMES**

Having successfully completed this course, the student will be able to:

- Develop a holistic view of the city as a basis for designing the city/city components/ urban structure through research, documentation and urban design interventions.
- Sensitize towards various urban design issues that are faced by a city and places around that city
- Understand the impact of components of cities related to urban design like transportation, landscape, context, response to environment, integration of services, built form and design, etc.
- Help develop an understanding towards impact of statutory norms like FAR, density, height, elevation control, etc. on urban design and their augmentation.

### **PEDAGOGY**

- Classroom teaching is supported by giving handouts/ readings, PowerPoint slides, short movies/ discussions, exposure to Site visits/filed visits to specific building pertaining to the typology chosen.
- Stage by stage submission may be followed by an internal jury where the student work may be critically examined followed by a class discussion.
- Case Study based approach may be explored

### **EVALUATION SCHEME**

The work may be presented as portfolio and may be evaluated through Viva voce by a jury.

<ul style="list-style-type: none"> <li>• Continuous evaluation by teacher(to be based on performance in studio/workshop/lab, attendance/Jury, assignments/projects, quizzes etc. (50 marks multi- stage evaluation)</li> </ul>	50%
<ul style="list-style-type: none"> <li>• End Semester Viva Voce</li> </ul>	50%

## **CONTENTS**

The studio problem shall be based around the idea of urban, urbanization and urbanism. Concepts of place and space - social construction of space, and its relevance with the ongoing urban schemes may be explored. Concepts of land use, zoning regulations, mixed use development, Green Urbanism, Special Economic Zones may be included to reflect in the outcome of studio work.

### **The studio may be divided to the following phases:**

#### **Background Study:**

- Secondary Research- Understanding and documenting various theories and issues pertaining to Urban Design

#### **Site Analysis & Planning Phase:**

- Issues and aspects (Social-economic-cultural-environmental, market, building use, land use, context, urban space, etc.),
- Application of theory
- Application and Applicability of Statutory Norms
- Understanding of Site
- Mapping activities, building typologies, etc.
- Framing vision for site in context of Urban Development
- Critical Analysis of statutory norms and issues identified
- Spatial analysis and model making may be explored as a tool for analysis
- Site resource systems, Micro-climate, Vegetation and Wild life, Cultural resources, Urban vegetation, planning & maintenance, Road layout and parking, Site grading and drainage, Sewerage, water supply and electricity, Surveys and overlays, Site planning goals and objectives, programme development

#### **Conceptual Design Phase:**

- Identification of problems and issues, Conceptual Design Scheme

#### **Design Development Phase:**

- Portfolio showing planning & design decision process and conceptual design done by students in groups of three or four each

### **Post-Studio Phase:**

- Final work of the studio may be exhibited. The post-studio stage usually includes the production of a report or publication of the studio results or some form of public or professional debate.

### **REFERENCE BOOKS**

1. Broadbent, G. (1996). *Emerging concepts in urban space design*. London: Spon.
2. Bacon, E. (1967). *Design of Cities*. London: Thames & Hudson.
3. Morris, A. (1974). *History of urban form prehistory to the renaissance*. New York: J. Wiley.
4. Kostof, S. and Castillo, G. (2014). *The city assembled*. New York, NY: Thames & Hudson.
5. Kostof, S. (2017). *The city shaped*. Johannesburg: MTM.

<b>INTRODUCTION TO ADVANCED CONSTRUCTION SYSTEMS</b>			
<b>Course Code:</b>	<b>BAP 503</b>	<b>Credits:</b>	<b>03</b>
<b>No. of Studio Hrs/Week:</b>	<b>03</b>	<b>Mid Semester Exam Hours:</b>	<b>--</b>
<b>Total No. of Studio Hrs:</b>	<b>48</b>	<b>End Semester Exam Hours:</b>	<b>VV</b>

### **INTRODUCTION**

This subject gives an insight about various advanced systems of construction

### **AIM**

The aim of this course is to develop the understanding about various advanced technical construction systems

### **OBJECTIVE**

- To familiarize students with various advanced systems of construction in steel / concrete

### **LEARNING OUTCOMES**

Having successfully completed this course, the student will be able to

- Understand the structural behavior of advanced construction systems
- Understand details in advanced construction systems in steel / concrete.
- Understand evolution of advanced construction systems.

### **PEDAGOGY**

Classroom teaching is supported by preparation of drawings / models.

### **EVALUATION SCHEME**

The work will be presented as portfolio and will be evaluated through Viva Voce by a jury.

<ul style="list-style-type: none"> <li>• Continuous evaluation by teacher(to be based on performance in studio/workshop/lab, attendance, assignments/projects, quizzes etc. (50 marks multi- stage evaluation)</li> </ul>	50%
<ul style="list-style-type: none"> <li>• End Semester Viva Voce</li> </ul>	50%

### **CONTENTS**

#### **Introduction to the concepts of:**

Lattice Girders, Vierendeel Girders; Large Span slabs, Shell and folded plate; Tensile structures and pneumatic structures; Introduction to Multi-storey frames, effect of wind load on Multi-storey building; Earthquake Resistant Construction systems in Seismic zones.

### **REFERENCE BOOKS**

1. McKay, W.B., Building Construction, Vols. I, II, III, Longman. 2005
2. Barry, Robbin, "The construction of Buildings", Vol. 1 to 5, Blackwell Science, 1996

3. Chudley, Roy, "Building Construction Handbook", Routledge; 8<sup>th</sup> Edition, 2010.
4. Building Construction by B.C. Punmia
5. Macdonald, Angus J.; 2001, structure and architecture (second edition); architectural press; UK
6. Ching, F.D.K.; A Visual Dictionary of Architecture (Second Edition); Wiley-India; 2012
7. Das P.K. and Ramanatham R., "Seismic Safety in Architecture"
8. Arya A.S., "Masonry and Timber Structures, Including Earthquake Resistant Design"
9. Levy, M. and Salvadori, M., "Why Building Fall Down"
10. Levy, M. and Salvadori, M., "Why Building Stand up"
11. Salvadori, M., "Structure in Architecture" Pearson; 4th Edition ,2016

<b>INTRODUCTION TO LANDSCAPE ARCHITECTURE</b>			
<b>Course Code:</b>	<b>BAP 505</b>	<b>Credits:</b>	<b>02</b>
<b>No. of Lecture Hrs/Week:</b>	<b>02</b>	<b>Mid Semester Exam Hours:</b>	<b>1.5</b>
<b>Total No. of Lectures:</b>	<b>32</b>	<b>End Semester Exam Hours:</b>	<b>03</b>

## INTRODUCTION

This subject introduces the role of landscape architecture as an environmentally sensitive protector concerned with the improvement of quality of the built as well as the natural environment.

## AIM

The aim of this course is to familiarize the student with the role and importance of landscape architecture in design and to familiarize the students with the fundamentals in landscaping.

## OBJECTIVES

- To introduce to the students the role and importance of landscape architecture in enhancing and improving the quality of built spaces and its environs.
- To encourage application in the design studio of the same semester as well as subsequent

## LEARNING OUTCOMES

Having successfully completed this course, the student may be able to:

- Make the students aware of the role of landscape architecture for the harmonious co-existence of man with nature
- Understand the natural and man-made components that generates the decisions in the planning of any site
- Identify and analyze the various factors and constituents of landscape architecture

## PEDAGOGY

Classroom teaching through multi-media may be supported by site visit.

## EVALUATION SCHEME

Continuous assessment by teacher (based on the following) <ul style="list-style-type: none"><li>• Two Class Tests of <b>15 marks each</b> (to be conducted after 6 weeks and 12 weeks of teaching in accordance with university academic calendar)</li><li>• Assignments/Group Discussions/Viva-voce/Additional Test/Quizzes/attendance = <b>10 marks</b></li></ul>	40%
End Semester Examination	60%

## CONTENTS

### Unit 1: Introduction to landscape architecture

- Definitions, importance, need and scope.
- Landscape architecture and ecology. Relationship between landscaping and environmental planning, regional planning, urban planning, urban design and architecture. Natural and manmade landscape, Urban and rural landscape.

- Fundamental considerations involving landscape architecture.
- Climatic factors (temperature, humidity, rainfall. Macroclimate and microclimate. Relationship between climate and landscape and architecture)
- Natural Factors (rocks, soil, water, landforms, vegetation,)

### **Unit 2: Constituents/ elements of landscape architecture**

- Vegetation (basic horticultural idea about plant material, plant selection and planting design. Trees, shrubs- annuals and seasonal, field identification of minimum 20 common Indian native/naturalized trees and shrubs)
- Land forms - geology, topography, levels, grading, drainage, hard and soft surfaces
- Rocks, soil and water and their importance and application in design.
- Elements of outdoor space organization. Brief idea about manmade components like walls, fences, entrances, gates, barriers, screens, planters, roads & pathways, street furniture, signage, services-electrical, water supply and drainage.
- Technical Aspects of Landscape Design: Planting, water forms, paving, illumination, outdoor furniture, signage & vocabulary etc.
- Brief idea about ecology

### **Unit 3: History of Landscape Architecture**

Landscape architecture in Oriental and Occidental civilizations. Origins of gardens. Design Principles, salient features and elements of various gardens in history - like Egyptian, Persian, Spanish, Italian, French, English, Japanese, Moghul and American.

### **Unit 4: Modern development in Landscape Architecture**

Modern garden development. A brief study of contemporary works Changed scenario for modern garden designs. Effect of industrialization on garden designs. Company towns, parks movement, green belts, urban parks, residential-Individual and group of building, small gardens, Commercial and Shopping. Roof gardens, Streetscaping, avenues, Recreational: parks and Children's Play Area, plaza and squares, dwelling level, Neighborhood level, Concept and use of national Parks. Contemporary materials and technology based landscape solutions, landscape/ environmental movements.

### **REFERENCE BOOKS**

1. Simonds, J. and Starke, B. (2010). *Landscape Architecture*. Blacklick, USA: McGraw-Hill Professional Publishing.
2. Krishen, P. (2013). *Jungle trees of central India*. New Delhi: Penguin Books.
3. Krishen, P. (2006). *Trees of Delhi*. London [u.a.]: Dorling Kindersley.
4. Marsh, G. (1869). *Man and nature*. New York: C. Scribner & Co.
5. Dines, N. and Brown, K. (2002). *Time-saver standards for landscape architecture*. USA: McGraw-Hill.



6. Lynch, K. and Hack, G. (1984). *Site planning*. Cambridge: MIT Press.
7. Geoffry. and Jellicoe, Susan. *Landscape of Man: shaping the environment from pre-history to the present day*. Reed Business Information, Inc
8. Hackett, B. (1982). *Planting design*. London: E. & F.N. Spon.
9. Robinson, N. (2004). *The planting design handbook*. Aldershot, Hants, England: Ashgate.
10. McHarg, I. (1992). *Design with nature*. New York: J. Wiley.

<b>Course Code:</b>	<b>BAP 507</b>	<b>Credits:</b>	<b>02</b>
<b>No. of Lectures Hrs/Week:</b>	<b>02</b>	<b>Mid Semester Exam Hours:</b>	<b>1.5</b>
<b>Total No. of Lectures:</b>	<b>32</b>	<b>End Semester Exam Hours:</b>	<b>03</b>

### INTRODUCTION

Town Planning course introduces students to the concept of planned sustainable development of our towns

### AIM

To introduce students to various issues faced by our contemporary towns pertaining to physical development and establish the need for planned development.

### OBJECTIVES

- To encourage students develop perception towards to various issues faced by our contemporary towns pertaining to physical development.

### LEARNING OUTCOMES

Having successfully completed this course, the student will be able to

- Understand the issues faced by contemporary towns
- Understand the need to plan and regulate the development of towns
- Understand statutory provisions to regulate town development
- Understand various theories/ concepts for making a development plan

### PEDAGOGY

Classroom teaching through multi-media supported by case studies

### EVALUATION SCHEME

Continuous assessment by teacher (based on the following)	40%
<ul style="list-style-type: none"> <li>• Two Class Tests of <b>15 marks each</b> (to be conducted after 6 weeks and 12 weeks of teaching in accordance with university academic calendar)</li> <li>• Assignments/Group Discussions/Viva-voce/Additional Test/Quizzes/attendance = <b>10 marks</b></li> </ul>	
End Semester Examination	60%

### CONTENTS

#### **Unit 1: Introduction to Town Planning**

Introduction to History of Town Planning in India;

Introduction to Town Planning in Ancient Period in India: case study of city of Harappa and Mohenjo Daro; Introduction to Town Planning in Pre-colonial / Medieval Period in India: Case study of city of Fatehpur Sikri and Jaipur;

Introduction to Town Planning in Colonial Period : case study of Lutyens Delhi (New Delhi); Defining Towns, Urban Agglomeration and Out Growths as per Census of India 2011; Goal and Objective of Town Planning; Defining a Development Plan; Introduction to Broad concept of Types of development plans: master plan (including

Zonal Development Plan, Sub-Zonal Plan, Layout Plan, Local Area Plan), city development plan, structure plan, district plan, action area plan, subject plan, town planning scheme, regional plan, sub-regional plan; Sector plans and spatial plans.

### **Unit 2: Development Regulations**

Defining development and development control regulations; Components of Master Plan for Delhi 2021 (Incorporating modifications up to 31st March, 2017) and UDPI Guidelines.

### **Unit 3: Governance in Planning**

Brief introduction to 74<sup>th</sup> Constitution Amendment Act 1992, Local Government in India, Broad Provisions under Model Town and Regional Planning and Development law 1962 or Model Regional and Town Planning and Development Law 1985, Broad provisions under Delhi Development Act, 1957.

### **Unit 4: Theories of Urbanization**

Neighborhood Planning Concept, Ebenezer Howard - Garden city concept and three magnet diagram, Centre Place Theory, Burgess Model (Concentric Zones), Centre Place Theory, Grid / Hippodamian Model, Multiple Nuclei Model, Sector Model, Radburn – super block, Petrick Geddes theory of Conservative Surgery and Geddis Trio, Radiant City by Le Corbusier, Broadacre City concept by Frank Lloyd Wright. Broad understanding of concepts like Inclusive Cities, Smart Cities, Sustainable cities, Transit Oriented Development.

### **REFERENCE BOOKS**

1. Bandyopadhyay, A., *Textbook of Town Planning*. Books & Allied Ltd.
2. Master Plan of Delhi 2021 by Delhi Development Authority (Incorporating modifications up to 31st March, 2017)

<b>Course Code:</b>	<b>BAP 509</b>	<b>Credits:</b>	<b>02</b>
<b>No. of Practical Hrs/Week:</b>	<b>03</b>	<b>Mid Semester Exam Hours:</b>	<b>-</b>
<b>Total No. of Practical Hrs:</b>	<b>48</b>	<b>End Semester Exam Hours:</b>	<b>VV</b>

### **INTRODUCTION**

An overview of the occurrence, causes and consequences of disaster and understanding of fundamental concepts and application of disaster resilient design

### **AIM**

To equip students to identify all kinds of disasters and encourage them develop self-resilient models for communities.

### **OBJECTIVES**

1. To sensitize students to various disasters, its mitigation and management practices
2. Understand the need to make communities resilient
3. Know international and national benchmarks set by agencies/ organizations/ INGO's, NGO's, etc.

### **LEARNING OUTCOME**

1. A holistic understanding of how communities live and various ways of making them resilient towards disasters.
2. Greater understanding of the words like Rehabilitation, Resilient, Resettlement, Relief, Reconstruction, etc.
3. To understand the total energy requirement of a building and adopt an efficient design approach
4. To introduce them to various Disaster Management Strategies adopted at Local and global level

### **PEDAGOGY**

- Classroom teaching is supported by Role Plays, giving handouts, PowerPoint slides, and exposure to Industry visit/Site visits/field visits to specific building pertaining to the typology chosen.
- Stage by stage submission may be followed by an internal jury where the student work may be critically examined followed by a class discussion.
- A collaboration project with NGO/ Organization already working in Disaster Management may also be taken up.

### **EVALUATION SCHEME**

<ul style="list-style-type: none"> <li>• Continuous evaluation by teacher(to be based on performance in studio/workshop/lab, attendance, assignments/projects, quizzes etc. (50 marks multi- stage evaluation)</li> </ul>	50%
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• End Semester Viva Voce	50%
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### **CONTENT**

- Concepts, Approaches and Theories of Disasters, Fundamentals of Disaster Management, Types of Disasters (Natural and Human Induced Disasters), Socio-Economic consequences, Post Disaster Recovery, Preparedness and Mitigation, etc.
- Occurrence of disaster in different climatic and geographical regions, hazard (earthquake and cyclone) map of the world and India, Disasters in India, Disaster Management Mechanism in India
- Research Methods in Disaster Management, Role of Remote Sensing and Geographic Information System (GIS) in Disaster Management
- Finance and Insurance in Disaster Management, Legal Aspects of Design Management, Role of International Agencies in Design Management
- Design Strategies for Disaster Prone Areas- Various types of Disasters like earthquake, cyclone, etc. to be taken up and various design strategies/ construction technology/ materials/etc. adopted in such disaster prone area may be discussed
- Relief, Rehabilitation, Resettlement, Reconstruction and Resilient
- Making communities Resilient- innovative and participatory approach to disaster management, Community safety and disaster resilience- Case study of resilient communities may be taken up for study

### **REFERENCES**

1. Lee, B. Ed. (2008). *Hazards and the Built Environment: Attaining Built-In Resilience*. Oxon: Taylor and Francis.
2. Various Handouts of NDMA available on their website <https://ndma.gov.in/>

<b>Course Code:</b>	<b>BAP 511</b>	<b>Credits:</b>	<b>02</b>
<b>No. of Practical Hrs/Week:</b>	<b>03</b>	<b>Mid Semester Exam Hours:</b>	<b>-</b>
<b>Total No. of Practical Hrs:</b>	<b>48</b>	<b>End Semester Exam Hours:</b>	<b>VV</b>

### **INTRODUCTION**

The students are expected to choose topics which are of special interest to them and prepare a report after research. The students are encouraged to take up topics which are interdisciplinary in nature which may or may not be directly related to architecture.

### **AIM**

To encourage students to take up research in architecture and help understand its significance in the architectural practice

### **OBJECTIVES**

- To sensitize students towards more human centered, evidence based design process.
- To introduce the students the types of research in architecture and the process of formulating a research plan.
- To introduce the students to various methods of research in architecture, their relative advantages and disadvantages and their applications.

### **LEARNING OUTCOME**

Having successfully completed this course, the student will be able to:

- Link the research component with the design process
- Improve technical writing skills
- Develop a more evidence based design process

### **PEDAGOGY**

Classroom teaching is supported by giving handouts, PowerPoint slides, and notes giving exposure to technical writing skills. This course has to be undertaken individually by students.

### **EVALUATION SCHEME**

Stage by stage submission may be followed by an internal jury where the student work may be critically examined. At the end of the Jury/ Viva voce a compiled report has to be submitted to the department library and the respective guides.

<ul style="list-style-type: none"> <li>• Continuous evaluation by teacher(to be based on performance in studio/workshop/lab, attendance, assignments/projects, quizzes etc. (50 marks multi- stage evaluation)</li> </ul>	50%
<ul style="list-style-type: none"> <li>• End Semester Viva Voce</li> </ul>	50%

## **CONTENTS**

### **Study Work:**

- Recap on Research Methodologies
- Writing skill development for writing synopsis, abstracts, articles, research papers, etc.
- The entire study may be carried under following stages:
  - Finalizing the Objective through various discussions
  - Identification of Research Area and Gap
  - Developing the framework of Study
  - Content Development
  - Data Processing
  - Research Findings/ Outcomes/ Inferences

### **Sessional Work:**

- The student shall submit a synopsis of the Project and the Departmental Committee may approve this before the student is allowed to proceed with the topic.
- Writing a summary of about 1000 words on any one book / part of a book (chapter) related to architecture, read by the student.
- Undertaking small research on a topic, preferably related to the previous semester Architectural Design Project topic of the student and presenting it in form of a research paper of about 2000 words.
- Any changes/ Detailed guidelines may be issued by Department Committee from time to time

URBAN ISSUES			
<b>Course Code:</b>	<b>BAP 513</b>	<b>Credits:</b>	<b>01</b>
<b>No. of Practical Hrs/Week:</b>	<b>02</b>	<b>Mid Semester Exam Hours:</b>	<b>-</b>
<b>Total No. of Practical Hrs:</b>	<b>32</b>	<b>End Semester Exam Hours:</b>	<b>VV</b>

### INTRODUCTION

The subject shall expose students with the various issues and challenges which exists in the built-environment (of which they are also a part)

### AIM

To sensitize students with various issues/problems that exists in an urban setting and has an impact on the day to day life of an urban area

### OBJECTIVES

- To educate students about the resources that exists in a city and encourage them to find out optimum solutions for real life situations
- To encourage students towards exploring possible ways of addressing the existing problems/ issues of an urban centre

### LEARNING OUTCOME

- Greater understanding of the words like Socio-Economic issues, Environment issues, Infrastructure Challenges, safety issues, etc.

### PEDAGOGY

- Classroom teaching is supported by Role Plays, giving handouts, PowerPoint slides, and exposure to Industry visit/Site visits/field visits to specific building pertaining to the typology chosen.
- A collaboration project with NGO/ Organization already working in at Urban Level
- Stage by stage submission may be followed by an internal jury where the student work may be critically examined followed by a class discussion.

### EVALUATION SCHEME

<ul style="list-style-type: none"> <li>• Continuous evaluation by teacher(to be based on performance in studio/workshop/lab, attendance, assignments/projects, quizzes etc. (50 marks multi- stage evaluation)</li> </ul>	50%
<ul style="list-style-type: none"> <li>• End Semester Viva Voce</li> </ul>	50%

### CONTENT

#### **Understanding the Urban Context**

Urban design terminologies and definitions, Methods of urban design surveys, documentation and representation, Cognitive mapping – contemporary and traditional, Space analysis, Determinants of urban form, Components of urban structure, Concepts of layering, Typological studies, Architectural expression



**Socio-Economic Issues:**

Slums, urban villages, peri-urban areas, Employment, manufacturing, food production, Affordable housing, migrant housing, mixed land use,

**Environment & Health Issues:**

Clean India, pollution, Right to water, sanitation, energy, food, transport, waste, management, Public open spaces, recreation, entertainment

**Developmental Issues:**

FAR, density, bylaws, quality of life, Interior design, adaptation of existing buildings, Urban construction technology, urban mines, urban management, governance

**Safety Issues:**

Gender issues, safety and security of all, universal access, Resilience, disaster mitigation

**REFERENCES**

1. Nathan, H. and Scott, S. (1984). *Urban issues, growth, and the economy, 1977-1982*. Berkeley: Institute of Governmental Studies, University of California.
2. Schaffer, D. and Vollmer, D. (2010). *Pathways to urban sustainability*. Washington, D.C.: National Academies Press.
3. Sharan, A., 2014. *In the City, out of Place: Nuisance, Pollution, and Dwelling in Delhi, c. 1850-2000*. Oxford University Press.
4. Kostof, S. (2017). *The city shaped*. Johanneshov: MTM.

<b>EPHEMERAL ARCHITECTURE (ELECTIVE COURSE)</b>			
<b>Course Code:</b>	<b>BAP 515</b>	<b>Credits:</b>	<b>02</b>
<b>No. of Practical (Hrs/Week):</b>	<b>03</b>	<b>Mid Sem Exam Hours:</b>	<b>--</b>
<b>Total No. of Practical Hrs:</b>	<b>48</b>	<b>End Sem Exam Hours:</b>	<b>VV</b>

**INTRODUCTION:**

This subject is being introduced to expose undergraduate students of architecture, who are otherwise conditioned to think in the direction of creation of permanent built spaces only,.

**AIM:**

To enable students to be able to appreciate and design spaces that is ephemeral in character.

**LEARNING OUTCOMES:**

The student will be able to:

- Understand and appreciate design and space that is not meant for permanent installation
- Understand the need and nature of ephemeral spaces and its environ transforming qualities
- Understand the influences that lead to ephemeral architecture and the influence it has on different aspects of architecture and life.
- Understand the possibilities of space design that is beyond the structural unit of foundation; materials and space definers that are tactile and otherwise.

**PEDAGOGY:**

Classroom teaching supported by digital multimedia and case studies. A vital part of the learning will be achieved through first hand site experience of students that they would present in the studio followed by group discussion. This knowledge will be eventually used by the students to identify pertinent spaces and create ephemeral designs of their own.

**EVALUATION SCHEME:**

<ul style="list-style-type: none"> <li>• Continuous evaluation by teacher(to be based on performance in studio/workshop/lab, attendance, assignments/projects, quizzes etc. (50 marks multi- stage evaluation)</li> </ul>	50%
<ul style="list-style-type: none"> <li>• End Semester Viva Voce</li> </ul>	50%

**CONTENTS**

**Introduction to the word Ephemeral**

- The term ephemeral and its manifestations throughout different eras and contexts.

- The philosophy of space and live space: pragmatic, functional, contextual, conceptual, sensual, artistic, abstract. Character and transformation.
- The components of ephemeral design: social, political, religious, materials, tangible and intangible and events and its forms. Influences that lead to ephemeral spaces.

### **Ephemeral Spaces and Design**

- Response to ephemeral spaces/design: individual and at community level and the reverberations.
- Explorations of the possibilities of ephemeral spaces/designs: outdoor, indoor, scenography, urban, rural etc.
- Relationship between temporal/ephemeral and its setting. Relationship between the permanent and the temporary, negative space and positive space of temporal character.

### **Case Study**

- Case specific studies of experiments with time and space in architecture and art.
- Studies must also include the Ephemerality of the forces that are not consciously designed; this may also include natural phenomena.

### **Finding Solutions**

- Identification and study of various examples/ case studies. Identification of pertinent situation and design of spaces, installations etc. of ephemeral character.

### **REFERENCE BOOKS**

1. Karandinou Anastasia, *No Matter: Theories and Practices of the Ephemeral in Architecture*, Ashgate Studies in Architecture, Routledge; 1 edition, October 23, 2013
2. Vidiella Alex Sanchez, *Ephemeral Architecture: 1000 Ideas by 100 Architects*, Promopress, 1 July 2016.

<b>INTERIOR DESIGN (ELECTIVE COURSE)</b>			
<b>Course Code:</b>	<b>BAP 517</b>	<b>Credits:</b>	<b>2</b>
<b>No. of Practical Hrs/Week:</b>	<b>3</b>	<b>Mid Semester Exams Hours:</b>	<b>--</b>
<b>Total No. of Practical Hrs:</b>	<b>48</b>	<b>End Semester Exams Hours:</b>	<b>VV</b>

### **INTRODUCTION**

The subject Interior Design is a specialized course offered in architecture which deals with functionality, safety and provides an aesthetically pleasing space for users. This semester will deal with minute details and construction techniques involved in interior design.

### **AIM**

To study the Interior Design principles and their applications in interiors.

### **OBJECTIVES**

To undertake a detailed study of history, principles and elements that go into making of an interior space more aesthetic, pleasing and functional with a few projects as practical.

### **LEARNING OUTCOMES**

Having successfully completed this course, the student will be able to:

- Understand and discuss the interior environment in the context of the exterior
- Understand the various aspects such as spatial quality, design vocabulary, design principles, and design process related to the design of interiors.
- Understanding various aspects such as form, scale, light, dimension, height, transitional elements etc affecting interior space.

### **PEDAGOGY**

Classroom teaching through multi-media supported by case studies and may be supported by site visits to various residential, institutional and commercial interior spaces. Market surveys, presentation and reports.

### **EVALUATION SCHEME**

The work will be presented as portfolio and will be evaluated through Viva voce by a jury.

<ul style="list-style-type: none"> <li>• Continuous evaluation by teacher(to be based on performance in studio/workshop/lab, attendance, assignments/projects, quizzes etc. (50 marks multi- stage evaluation)</li> </ul>	50%
<ul style="list-style-type: none"> <li>• End Semester Viva Voce</li> </ul>	50%

### **CONTENTS**

#### **Introduction to Interior Design**

Definition of interior design - Interior design process - Vocabulary of design in terms of principles and elements - Introduction to the design of interior spaces as related to typologies and functions, themes and concepts.

### **History of Interior Design**

Brief study of the history of interior design through the ages relating to historical context, design movements and ideas etc. - Brief study of folk arts and crafts. (Vernacular design in India) with reference to interior design and decoration Evolution of Arts and Craft movement, Scandanivian Traditions, Asian(East Asian and Middle eastern) Aesthetics etc. Various contemporary styles in India and abroad.

### **Built elements and typologies.**

An introduction to various construction techniques in interiors.

Building materials and finishes .Details of doors, windows, cupboards, partitions and joineries .Soft furnishings – Meaning, Importance – relationship of furnishings with space, selection and use of furnishings and methods of construction in order to obtain certain specific functional, aesthetic and psychological effects. Structural and services integration with interiors and ways to mitigate the clashes while construction.

### **Lighting accessories & interior landscaping and colour.**

Study of selection of lamps and lighting fixtures, lighting for various areas and specific activities, modern features in lighting design .Elements of interiors like accessories used for enhancement of interiors – Paintings, objects de art, etc. Interior landscaping - Elements like rocks, plants, water, flowers, fountains, paving, artifacts, etc. their physical properties, effects on spaces and design values. Concept of colour - significance and application of colour in the interiors and exteriors.

### **Furniture Design & Space Planning**

Study of the relationship between furniture and spaces - human movements & furniture design as related to human comfort. Function, materials and methods of construction - changing trends and lifestyles - innovations and design ideas - Study on furniture for specific types of interiors like office furniture, children's furniture, residential furniture, display systems, etc. – Design Projects on Residential, Commercial and Office Interiors.

### **Design Project**

Complete design, detailing, furniture layout, specification for the materials, and their application. The projects shall relate to interiors of residential, commercial, educational or other public spaces. BOQ of interior work and material specification.

### **REFERENCE BOOKS/JOURNALS:**

1. Francis .D.K. Ching, Interior Design Illustrated, V.N.R. Pub., NY 1987.
2. Julius Penero and Martin Zelnik, Human Dimensions and Interior space Whitney Library of Design, NY 1979.
3. Susan M.Winchip: Fundamentals of Lighting, 2nd Edition.

<b>OPEN ELECTIVE</b>			
<b>Course Code:</b>	<b>BAP 519</b>	<b>Credits:</b>	<b>02</b>
<b>No. of Practical (Hrs/Week):</b>	<b>03</b>	<b>Mid Sem Exam Hours:</b>	<b>--</b>
<b>Total No. of Practical Hrs:</b>	<b>48</b>	<b>End Sem Exam Hours:</b>	<b>VV</b>

Department offers Elective in wide range of topics which shall be related to architecture from time to time. Any faculty member who wants to float an elective may submit the proposal to the Departmental Syllabus Committee, including the syllabus and evaluation scheme for the proposed elective course. The format of syllabus for the proposed elective must be as per other electives in the syllabus of VII Semester B.Arch syllabus. The Departmental syllabus committee shall finalize the elective subjects to be floated at least one month before the commencement of an Academic Semester.

## COURSE STRUCTURE – TENTH SEMESTER

S. No.	Paper Code	Paper Title	L (1)	S (1)	P(0.5)	Credits	Marks	ESE (*)	Duration of exam (HRS)
<b>STUDIO COURSES</b>									
1	BAP 502	Architectural Design–X (Thesis)		20	-	20	100	VV	-
<b>THEORY COURSES</b>									
2	BAP 504	Project Management	2	-	-	2	100	WR	3
3	BAP 506	Professional Practice	2	-	-	2	100	WR	3
<b>Total</b>			<b>4</b>	<b>20</b>	<b>-</b>	<b>24</b>			

(\*) Please see below for abbreviations:

VV – Viva Voce  
WR – Written Test

<b>ARCHITECTURAL DESIGN-X (THESIS)</b>			
<b>Course Code:</b>	<b>BAP 502</b>	<b>Credits:</b>	<b>20</b>
<b>No. of Studio (Hrs/Week):</b>	<b>20</b>	<b>Mid Sem Exam Hours:</b>	<b>-</b>
<b>Total No. of Studio Hrs:</b>	<b>320</b>	<b>End Sem Exam Hours:</b>	<b>VV</b>

## **INTRODUCTION**

The Architectural Thesis is the culmination of the development of the student's knowledge, attitudes and skills over the course of studies in architecture. It is an occasion for exercising conscious choices in the field, based on the student's personal abilities and inclinations, and for testing out his commitment. The student, in consultation with the faculty, is expected to demonstrate through an imaginative approach, his expertise in effecting positive changes in our built environment.

## **AIM**

The project selected by the students in the area of their interest and attempted after detailed analytical study of the chosen topic/subject. The project is to be done under faculty guidance and presented in a graphic form, model, computer generated graphics and report.

- To prepare a student to independently handle and present all aspects of an architectural design, from its evolution to final solution in totality.
- To understand the importance of the evolutionary stages of a design process and various techniques required for a successful presentation of an architectural design.
- To develop in students the ability to handle specific aspects / thrust area of design relevant to the topic.

## **OBJECTIVE**

- In this project the student is expected to individually synthesize all that is learnt in the previous semesters, conduct investigative research through library and other resources, co-ordinate all pertinent architectural issues with the design concept and objectives to reach a viable solution for the resolution of the selected problem.
- Thesis may also be on theme-based research on architectural projects involving collection and analysis of relevant data presented as an analytical study report.

## **EVALUATION SCHEME**

1. Evaluation of the thesis is done in various stages as notified by Departmental Committee.
2. Continuous assessment by supervising guide.
3. Progress evaluations by internal evaluation team appointed by the Department.
4. Mock review/Pre Final
5. Final evaluation by a committee appointed by the Department.

### **Scheme of Thesis evaluation are as follows:**

• Continuous Evaluation by Internal Faculty:	50%
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<ul style="list-style-type: none"> <li>• Continuous evaluation by supervising guide = 25%</li> <li>• Internal evaluation by team of three examiners = 25%</li> </ul>	
<ul style="list-style-type: none"> <li>• Final Evaluation by team of two/ three examiners</li> </ul>	50%

## **CONTENTS**

The multiple challenges of 'built environment' offer unlimited scope for the choice of an architectural design thesis. The selection of the thesis subject may result either from issue/s involved, or from the challenges of design, or the inherent and acquired aptitude of a student, which he/she wishes to perfect and present. The variety of the intentions give students the choice to select the topic of the thesis from a purely hypothetical to a 'live' programme, as long as the topic can result in tangible 'built environment' solution. Consequently, the size of the project has no relevance in the selection of the topic; the riding clause being the topic's relevance to serve the laid down specific objectives:

The thesis may be covered through following stages:

- Synopsis
- Case Study, Site Analysis and Area Programme
- Concept Design
- Design Development
- Detailed Design
- Pre-Final Evaluation
- Final Thesis Submission

For reasons of maintenance of uniformity in results and standards, the thesis presentation shall be in two distinct compartments: a report comprising of all the preliminary studies required for the thesis topic, and the final design solution.

1. The Thesis report shall consist of all relevant contextual studies: of user, place and time to enable the formulation of design criteria.
2. The design solution shall be in the form of drawings and model(s) of the concept and design and shall further include the presentation of at least one specific aspect relevant to the selected topic in complete detail.
3. The report, in duplicate, shall be submitted in bound form together with prints/photographs of all the drawings and model/s.
4. All relevant/ pertinent drawings, sketches, models from previous stages to be put up for the jury to show evolution of design.

PROJECT MANAGEMENT			
Course Code:	BAP 504	Credits:	02
No. of Lectures (Hrs/Week):	02	Mid Sem Exam Hours:	1.5
Total No. of Lectures:	32	End Sem Exam Hours:	03

### INTRODUCTION

Project Management is an efficient tool to understand various aspects associated with the project and develops deeper insights for putting things together for successful project completion

### AIM

To develop young and dynamic minds into mature and knowledgeable professionals with the potential to manage small and large projects in an efficient manner and to shoulder responsibility in any functional capacity.

### OBJECTIVE

- To help students develop Leadership Qualities
- To help them hone their managerial skills
- To help understand the role an architect plays for profound decision making.

### PEDAGOGY

Classroom teaching is supported by giving handouts, PowerPoint slides, exposure to Site visits/filed visits to specific building pertaining to the typology chosen. Interaction sessions with Professionals from Project Management background may also be organized.

### EVALUATION SCHEME

Continuous assessment by teacher (based on the following) <ul style="list-style-type: none"> <li>• Two Class Tests of <b>15 marks each</b> (to be conducted after 6 weeks and 12 weeks of teaching in accordance with university academic calendar)</li> <li>• Assignments/Group Discussions/Viva-voce/Additional Test/Quizzes/attendance = <b>10 marks</b></li> </ul>	40%
End Semester Examination	60%

### CONTENTS

#### **Units I: Introduction to Project Management**

- Basis of Management Theory and Science What is management, Project Management, Project Environment, Historical Evolution of Management Theories, Stakeholders Role & Decision Making, etc.

### **Units 2: Principles and Practices of Management**

- Planning, Organizing, Staffing, Leading and Controlling
- Project Management Tools & Techniques
- Role of HR, Importance of Leadership
- Introduction to various project management software

### **Units 3: Contracts & Change Management**

- Project Life Cycle and Role of Management
- Change Management
- Contracts Management
- Project Procurement and Materials Management

### **Units 4: Building Economics, Risk Management and International Project Management**

- Building Economics & Finance Management- Introducing the term Economics and Principle of Economics, Project Appraisal, Project Financing and its say in the design, Factors affecting the Building Economics etc.
- Risk Assessment and management
- International Project Management

### **REFERENCE BOOKS**

1. Principles of Management by Harold Koontz, Heinz Wehrich and A Ramachandra Wehrich; Publisher Tata McGraw-Hill's

PROFESSIONAL PRACTICE			
Course Code:	BAP 506	Credits:	02
No. of Lectures (Hrs/Week):	02	Mid Sem Exam Hours:	1.5
Total No. of Lectures:	32	End Sem Exam Hours:	03

### INTRODUCTION

The professional practice in post independent India took a shift primarily because of The Architects Act 1972. This course is to locate architecture profession in the larger context of the Country.

### AIM

To appraise the future architects/designers/planners for social responsibility works for peace, environmental protection, ecological building, social justice, and the development of healthy communities

### OBJECTIVES:

- To understand the legal system and an architect's role in this system
- To familiarize the student about an elementary knowledge of various instruments of law and legislation to safeguard the professional interest.
- To acquaint the students with most of the general aspects of valuation and arbitration.
- To familiarize the students with organization of an architect's office.

### LEARNING OUTCOME:

- The course will develop attitude towards highest standards of professionalism, integrity, and competence.

### PEDAGOGY:

Classroom teaching is supported by giving handouts, PowerPoint slides. The spectrum of lectures may be covered through lectures citing practical examples. Specialist who shall supplement the courses through extension lectures.

### EVALUATION SCHEME:

Continuous assessment by teacher (based on the following)	40%
<ul style="list-style-type: none"> <li>• Two Class Tests of <b>15 marks each</b> (to be conducted after 6 weeks and 12 weeks of teaching in accordance with university academic calendar)</li> <li>• Assignments/Group Discussions/Viva-voce/Additional Test/Quizzes/attendance = <b>10 marks</b></li> </ul>	
End Semester Examination	60%

### CONTENT:

#### Unit 1: Legalities of Profession

- Architectural profession and legalities,

- Identify and discuss the provisions of architectural practice in various acts namely, The Architects Act 1972, Labour Laws in India, The Companies Act 2013, The Arbitration and Conciliation Act 1996, Indian Copyright act 1957.
- Conventions and Charters
- Role of Professional Bodies
- History of Architecture Profession in India

### **Unit 2: Morals & Ethics of Practice**

- Code of ethics for architectural practice
- Moral duties of an architect
- Standards of professionalism, integrity, and competence, discussions on provisions of Competition Commission of India
- Intellectual Property Rights
- Ancient Indian texts on duties of architect and architecture profession
- Public awareness of important architectural issues
- Architecture as an agent of change- socio-economic perspective

### **Unit 3: Introduction to Arbitration and Valuation**

- Appointment, Conduct, Powers, and duties of arbitrators and umpires; Procedure of arbitration and preparation of awards
- Valuation of immovable properties, elements of valuation and factors affecting valuation; Techniques of valuation of landed and building property; Value classification and types of valuation

### **Unit 4: Setting up the Practice**

Professional organization, setting of practice, Contracts and tenders and Fee Structure, Design Competitions and Project Bidding

### **REFERENCE BOOKS:**

1. Deobhakta, Madhav. and Deobhakta, Meera. (2007). *Architectural Practice In India*. New Delhi. Council of Architecture
2. Council of Architecture, handbook of professional document
3. The Indian Institute of architects, the handbook of Professional Practice.