FOURTH YEAR EIGHTH SEMESTER

1. Architectural Design VIII (210815)

Objectives –

The course aims to obtain knowledge of fundamental concepts and theories of Housing and apply them in their design projects, various types of Housing and its components, the vocabulary of urban design, its components. And utilizing it in design.

S. No.	Subject Cod	Subject Name	Categor y	Maximum Marks Allotted							Total Mark s	CT HRS	Contact Periods per week			Total Credi ts	Mode of Exam	Mode of Teaching (Offline/ Online)
				Theory Slot				Practical Slot					L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam	Continuous Evaluation									
				End Sem.	Proficienc y in subject/ course	Mid Sem.	Quiz/ Assign ment /Session al		Lab work & Sessional	Skill based mini project								
1.	**210815**	**Architectural Design VIII**	**DC- 17**	-	-	-	-	100	100	50	250	8	-	-	8*(1.5)	**12**	Offli ne**	-

PROJECT I: HOUSING

The various types of housing projects in a typical urban scenario can be taken with suitable design parameters that get established after conducting a rigorous study. Analysis of existing design trends & user preferences need to be ascertained. Awareness about special building byelaws applicable for Group housing schemes is essential. In addition to design issues such as security, accessibility, identity, social interaction, comfort, economy etc. that would be investigated. The application of Fractals in design can also be explored. Ex. Housing for the poor /Slum dwellers, Multi-storied apartments for Govt. / corporate employees, Multi-storied condominiums for the rich etc.

PROJECT II: URBAN DESIGN OR CONSERVATION

Urban design projects could deal with redevelopment of problem areas such as riverfronts, beach fronts, market areas, bazaars or commercial & residential districts that have reached dead end situation. It could also deal with emerging nodes of transportation with its surrounding areas, the design of city level open spaces such as parks, plazas etc. Alternatively, conservation strategies for heritage areas along with revitalization techniques can also be attempted. The projects thus undertaken as group work will have to ultimately contribute ideas for the improvement of the quality of the urban environment.

REFERENCES:

<table>
<tr><td colspan="4"><u>COs & LOs for Architectural Design – VI (210815)</u>
Overall Course Outcome: The course aims to obtain knowledge of fundamental concepts and theories of Housing and apply them in their design projects, various types of Housing and its components, the vocabulary of urban design, its components. And utilizing it in design.</td></tr>
<tr><td rowspan="3">CO’s</td><td rowspan="3">The course should enable the student to:
● Familiarize with given topic of design by choosing appropriate case studies through visits and documentation.
● Understand the resources available at National and</td><td>LO1</td><td>Formulate an intellectual position, explored through architectural design, which reconciles the development of a critical brief with spatial and functional criteria.</td></tr>
<tr><td>LO2</td><td>Conceptualize a brief for a design project, which, through engagement with a series of contexts, seeks to provide a critique of the built environment by proposing alternative spatial, formal, organizational or material solutions.</td></tr>
<tr><td>LO3</td><td>Synthesize a design solution, which combines appropriate architectural expression, cultural response and the fulfillment of the functional requirements of a brief.</td></tr>
</table>

	international level through books, literatures and websites. • Develop design ideas and Incorporate them.	LO4	Produce appropriate drawings, models and other media of an architectural design which explore, test and express its qualities of space, form, organization and response to physical and other contexts.
		LO5	Integrate appropriate technologies concerning structure, materiality and services into the design proposal.
		LO6	Effectively communicate the design or designs through an exhibition incorporating drawings, models, texts and other appropriate media.

1. Time saver standards for building types, DeChiara and Callender, McGraw hill company
2. Neufert Architect's data, Bousmaha Baiche& Nicholas Walliman, Blackwell science ltd
3. National Building Code - ISI
4. New Metric Handbook – Patricia Tutt and David Adler – The Architectural Press
5. Time saver standards for landscape architecture – Charles W.Harris – McGraw Hil

2. Urban Design (Code – 210816)

Objective –

The course aims to prepare the students to develop a holistic view of the city as a basis for designing the city/city components in the third dimension.

S. No.	Subject Cod	Subject Name	Category	Maximum Marks Allotted							Total Marks	CT HRS	Contact Periods per week			Total Credits	Mode of Exam	Mode of Teaching (Offline/ Online)
				Theory Slot				Practical Slot					L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam	Continuous Evaluation									
				End Sem.	Proficiency in subject/ course	Mid Sem.	Quiz/ Assignment /Sessional		Lab work & Sessional	Skill based mini project								
2.	**210816**	**Urban Design**	**DC- 18**	50	10	20	20	20	30		150	4	1	1	2	**3**	Blended*** (3/1)	**PP**

UNIT- 1 INTRODUCTION

Emergence of urban design as a discipline, need for urban design, Elements of urban design(buildings, streets, public spaces, transports, other elements etc. Principles of urban design- creating form and spatial definition in articulation of urban design expression.

UNIT- 2 STUDY AND ANALYSIS OF URBAN SPACES IN HISTORY AND MODERN CONCEPTS IN URBAN DESIGN

A brief study and analysis of urban spaces in history-in the west(Greek, Roman, Medieval and Renaissance towns)and the east(in India-Vedic towns, temple towns, medieval and Islamic towns). Modern concepts in urban design. Study of Urban design theories of Gordon Cullen and Kevin Lynch. Relevance of historic concepts of urban design in the present context-Critical analysis of Indian cities & understanding the urban design projects of Singapore, China & United States.

UNIT- 3 BASIC PRINCIPLES & TECHNIQUES IN URBAN DESIGN

Components in urban design composition. Urban scale, mass and space, definition of urban fabric, visual surveys and their influence for urban design, various methods of conducting a visual survey. Definition and purpose of open spaces and their hierarchy in urban design-hierarchy of utility spaces for residential, commercial, recreational and industrial use. Special focus on streets-Expressive quality of built forms, spaces in public domain.

UNIT- 4 RENEWAL, RE-DEVELOPEMENT AND FORMULATING URBAN DESIGN

Definition and need for urban renewal and re-development, scope for urban renewal in India challenges and implementation methods of urban renewal for Indian historic towns and cities, impact of public participation. Analysis and formulation of urban design guidelines for new developments. National and international case studies for urban renewal.

UNIT- 5 URBAN DESIGN SURVEY AND PRESENTATION

Conducting an urban design survey of Conservation of historic cities, open-spaces, development of market spaces, transit oriented developments, water front development in India. Analysis of data. Formulating urban design guidelines for an area-practical problem solving, understanding various presentation techniques for urban design presentations.

COs & LOs for Urban Design 210816)			
Overall Course Outcome: The course aims to obtain knowledge of fundamental concepts and theories of Housing and apply them in their design projects, various types of Housing and its components, the vocabulary of urban design, its components. And utilizing it in design.			
CO1	**Understanding** the importance of general morphology of urban space	LO1	**Defining** Urban design as a requirement for public domain
		LO2	**Summarizing** various elements of the subject
		LO3	**Journaling** about public realm
		LO4	**Building** form and spatial definition
CO2	**Understanding** of fundamental concepts and theories of urban design	LO1	**Retrieving** concepts of the west and the east
		LO2	**Categorizing** urban spaces in history
		LO3	**Synthesise** general theoretical models by historians
		LO4	**Assessing** Urban forms of the history and contemporary reform
		LO5	**Creating** presentation of projects from different countries
CO3	**Learning** urban design techniques , components and survey methodology	LO1	**Understanding** components of urban design composition
		LO2	**Examining** methods of visual survey for analysis
		LO3	**Demonstrating** hierarchy of open spaces in urban design context
		LO4	**Programming** on streets and other public spaces
CO4	**Developing** the strategies that can be used to overcome urban issues	LO1	**Defining** urban renewal and urban re-development
		LO2	**Finding** scope in Indian historic towns and cities
		LO3	**Analysing** present documents by governments for new infrastructure and development
		LO4	**Evaluating** urban design guidelines and add new perspectives as required
		LO5	**Presenting** case examples related to urban re-development nationally and internationally
CO5	**Produce a** design process and a design solution to an urban design problem	LO1	**Appraise** a site by learnt survey methods
		LO2	**Analyse** secondary and primary information
		LO3	**Research** relevant developing urban design interventions
		LO4	**Demonstrating** abilities in team work and time management

REFERENCES:

1. The Concise townscape- Gordon Cullen,The Architectural press
2. Image of the city - Kevin Lynch
3. Architecture of town and cities - Paul D.Speriregon, The MIT press
4. Urban design – Ornament and decoration , Cliff Moughtin, Bath Press
5. Urban design – street and square, Cliff Moughtin, Bath Press
6. Town and square - Paul Zucker
7. The urban pattern - Arthur B Gallion, CBS publishers
8. Architecture and the urban experience - Raymond J Curran. Van Nostrand Reinhold Company
9. Indian city in the arid West - KulbashanJain , Aadi Centre

10. Indian mega city and economic reforms - A.K.Jain, Management publishing Company

3. Professional Practice & Ethics (210817)

Objective –

The course aims to obtain understanding of the moral values that ought to guide the Engineering profession, and to resolve the moral issues in the profession, and to justify the moral judgment concerning the profession.

S. No.	Subject Cod	Subject Name	Categor y	Maximum Marks Allotted							Total Mark s	CT HRS	Contact Periods per week			Total Credit s	Mode of Exam	Mode of Teaching (Offline/ Online)
				Theory Slot				Practical Slot										
				End Term Evaluation		Continuous Evaluation		End Sem. Exam	Continuous Evaluation				L	T	P			
				End Sem.	Proficienc y in subject/ course	Mid Sem.	Quiz/ Assign ment /Session al		Lab work & Sessional	Skill based mini project								
3.	**210817**	**Professional Practice & Ethics**	**PAEC-5**	50	10	20	20	-	-		100	3	2	1	-	**3**	Blended*** (2/1)	**PP**

UNIT- 1 THE PROFESSIONAL ROLE OF AN ARCHITECT & SERVICES RENDERED

Architect's role in society, IIA code of conduct, salient features of architect's act 1972, the council of architecture – Architect's office and its management, elementary accountancy required for the same etc. Architectural services- conditions of agreement- scope of work, comprehensive architectural services and architectural competitions, conditions of engagement, remuneration, professional fees and charges as per IIA norms, - copy rights of drawings.

UNIT- 2 ARCHITECTURAL COMPETITIONS & LEGISLATIONS

Regulations governing the conduct of competitions, Types of competition (open & closed competitions), appointment & duties of Assessors, instructions to participants, award of premium. Role of development authorities & urban arts commissions, salient features of the DCR for CMA, important regulations in the MP Govt. Environmental acts & laws, special rules governing hill area development & coastal area management, Heritage act of India etc.

UNIT- 3 EASEMENTS& ARBITRATION

Easement Rights –Definition, characteristics of an easement, Natural Rights ,Various easement rights- Easement of support, Easement of light and air, Easement of right of way, Easement of eave projection, etc . Continuous and Discontinuous easements, extinction of easements, Modes of acquiring easement rights – Need for Arbitration, arbitration agreement, role of arbitrators, umpire etc, excepted matters, arbitral award.

UNIT- 4 TENDER & CONTRACT

Calling for Tenders, tender documents, open & closed tenders, various types such as item rate, lump sum, labour & demolition tenders, conditions of tender, submission, scrutiny, recommendations & award of contract. Conditions of contract, IIA form of contract, articles of agreement, certification of contractor's bills, defects liability. Earnest money deposit, security money deposit etc.

UNIT- 5 VALUATION& RENT

Valuation – purpose of valuation, types of valuation- book value – salvage value- scrap value depreciation- obsolescence- sinking fund- land valuation ,building valuation- mortgage and lease- Annuity- definition, Fixation of rent- out going- gross and net income – year's purchase- capital cost standard rent- market rent- economical rent.

COs & LOs for Professional Practice & Ethics (210817) Overall Course Outcome: Students will be able to get down in the profession and practice ethically.			
CO1	With the understanding of the professional role of an architect & services rendered, the students will be able to practice ethically.	LO1	**Learn** the Architects' role in the society.
		LO2	**Relate** IIA Code of Conduct & Architect's Act, 1972 with architectural practice.
		LO3	**Understand** the working of architecture firm, services, scope of work, conditions of agreement, professional fees, remuneration and other professional charges, etc.
		LO4	**Comprehend** copyrights of drawings and other issues related to it.
CO2	Studying the regulations related to architectural competitions and legislations related to building construction, the students will be able to tackle the issues effectively.	LO1	**Learn** the types of competitions and regulations governing it.
		LO2	**Interpret** role of development authorities, commissions and salient features of DCR for CMA
		LO3	**Appreciate** the rules and the acts applied for specific types of building construction by the state and central governments.
		LO4	**Understand** the various Acts such as Environment Act, special rules governing hill area development, coastal area management, Heritage act of India, etc.
CO3	With the understanding of easement and arbitration, the students will be able to work practically once they enter professional world.	LO1	**Learn** easement rights and the types of easement rights and easements.
		LO2	**Construe** the modes of acquiring easement rights.
		LO3	**Appreciate** the need of Arbitration and its role, agreements, umpire, excepted matters, awards, etc.
CO4	Studying the regulations tenders and contract, the students will be able to put tenders and frame contract effectively.	LO1	**Learn** the definition and types of tender in architecture and building construction.
		LO2	**Interpret** conditions of tender, submission and scrutiny.
		LO3	**Recognize** the rules and regulations related to contract, agreements and certification of contractors' bill.
		LO4	**Understand** the various types of money deposits.
CO5	Studying the valuation and rent system will help the students in their professional practice.	LO1	**Learn** the meaning, purpose and type of valuation in architecture and building construction.
		LO2	**Summarize** the mortgage, lease, annuity, etc.
		LO3	**Understand** the system of renting and types of rent.

REFERENCES:

1. Hand book on Professional Practice by I. I. A, Image systems, Mumbai,1998.
2. Estimating and Costing by Dutta
3. CMDA-Development control rules for CMA.
4. TN cinematograph manual, govt central press, Chennai,1998.
5. Environmental Acts of the Ministry of Environment & forests, GoI.

4. Dissertation (210818)

Objective –

The course aims to obtain understanding of standards and conventions of doing dissertation. , to provide preliminary background information that puts the research in context and to clarify the focus of the study. The subject points out the value of research.

S. No.	Subject Cod	Subject Name	Category	Maximum Marks Allotted							Total Marks	CT HRS	Contact Periods per week			Total Credits	Mode of Exam	Mode of Teaching (Offline/ Online)
				Theory Slot				Practical Slot										
				End Term Evaluation		Continuous Evaluation		End Sem. Exam	Continuous Evaluation				L	T	P			
				End Sem.	Proficiency in subject/ course	Mid Sem.	Quiz/ Assignment /Sessional		Lab work & Sessional	Skill based mini project								
4.	**210818**	**Dissertation**	**PAEC- 6**	-	-		-	20	30		50	4	-	-	4	**2**	Blended*** (2/2)	**-**

PHASE-1

First phase of dissertation allows students to identify the broad area / field of Architecture of their interest in which they may intend to do the research. This is to be done by studying and reproducing the brief of technical papers in the form of report review.

PHASE-2

Second phase allows the students to do the study of sample example of research already done by choosing the specific aspect / area relevant to broader field they have selected in first phase. This exercise involves the writing of report / review of book / journal dedicated to that specific aspect or area. This review writing is aimed to understand the method of collecting data (survey methods), analysis of data (statistics and mathematical formulas), drawing inferences and conclusion as attempted by the author of the book.

PHASE-3

Third phase is the writing of detailed dissertation report. Students are expected to choose their own topic of research by referring the area / field already identified in other two phases.

NOTE: Sessionals will be submitted in the form of review reports and Dissertation report.

COs & LOs for Dissertation – VI (210818)			
Overall Course Outcome: The course aims to obtain knowledge of fundamental concepts and theories and to develop research ideas and Incorporate them in writing, with understanding of research and professional and academic reports.			
CO 1, 2, 3	The course should enable the student to: • Familiarize with given topic of research by choosing appropriate case studies through visits and documentation. • Understand the resources available at National and international level through books, literatures and websites. • Develop research ideas and Incorporate them.	LO1	Understand the fundamentals of Research methods before attempting final year Project Thesis.
		LO2	Study and develop basic research principles and research methods.
		LO3	Develop a sustained and coherent argument on an agreed topic, supported by both secondary and primary sources
		LO4	Communicate the result of a systematic programme of research with clear identification of the topic, research issues, the context and the theoretical perspectives.
		LO5	Evaluate significant information sources referred to and draw coherent conclusions relevant to the topic and issues initially identified, from the observations, evidence and arguments presented.
		LO6	Develop the skill of report writing. Prepare a Dissertation report

LIST OF TEXT AND REFERENCE BOOKS:

Instruction Manuals on report writing

5. Elective – VI

i) FURNITURE DESIGN (210822)

S. No.	Subject Code	Subject Name	Category	Maximum Marks Allotted							Total Marks	CT HRS	Contact Periods per week			Total Credits	Mode of Exam	Mode of Teaching (Offline/ Online)
				Theory Slot				Practical Slot					L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam	Continuous Evaluation									
				End Sem.	Proficiency in subject/ course	Mid Sem.	Quiz/ Assignment /Sessional		Lab work & Sessional	Skill based mini project								
5.	-	ELECTIVE VI	DE- 6	50	10	20	20	-	-		100	3	2	1	-	**3**	Blended* (2/1)	**PP**

Objective – The course aims to obtain knowledge of the creation and evolution of objects, structures and systems at human scale that *aim* to improve the quality of life in the immediate living and working environment, while looking at sustainable and innovative use of diverse materials and processes. The course aims to obtain knowledge of how to plan, finance and manage urban areas. Structures supported by effective land markets, appropriate regulation, good public services, adequate public finance and transparent and accountable city level political systems.

UNIT-1 INTRODUCTION TO ERGONOMICS AND FURNITURE DESIGN

Introduction to importance of ergonomics for human being in man-made world, Gross human anatomy, Ergonomics for different age group and gender in relation object used in interior.

UNIT-2 HUMAN FACTORS AND FURNITURE DESIGN

Brief study of Anthropometrics –man –machine-environment, static and dynamic, Muscles and work physiology, Static and Dynamic work including maximum capacity , Furniture ergonomics for differentage group and gender.

UNIT-3 ERGONOMIC FOR BUILT ENVIRONMENT

Built environment for the physically handicapped – Ramp, toilets and corridor design, Spatial Requirements for wheel chair movement-Design issues in the design of old age homes – Criteria tobe considered when designing for the Visually handicapped.

UNIT-4 ENVIRONMENTAL ERGONOMICS

Study of Biomechanics, Environmental Condition including, thermal, illumination, noise and vibration,Bio transducers Environmental stress, Psycho Psychological aspects of design.

UNIT-5 ERGONOMICS FOR FURNITURE DESIGN

Study Of Furniture ergonomics for different space like, office , residential, children, Aged and Physically and visually handicapped user.

COs & LOs for Furniture Design

Overall Course Outcome: The course aims to obtain knowledge of fundamental concepts and theories and to develop and design Furnitures.

CO1	**Developing** a good understanding about furniture elements and design principles	LO1	**Understanding** furniture design process
		LO2	**Understanding** behaviour psychology and perception
		LO3	**Discussing** elements of evolution of creativity in furniture design
		LO4	**Explaining** basic design principle, multiple dimensions and concepts of furniture design
CO2	**Understanding** the intricacies of interior area coming up with the furniture requirements and its historical background	LO1	**Remembering** history of furniture in western context
		LO2	**Relating** interior space planning and its historical background with respect to furniture design
		LO3	**Reflecting** knowledge on furniture design eras and movements

		LO4	**Reproduce** with the help of illustrations, craft of various Indian Folk
CO3	**Understanding** of various elements of furniture design in contemporary context so that efficient design can be achieved	LO1	**Identifying** various furniture design elements
		LO2	**Learning** the ergonomics of furniture design
		LO3	**Analysing** the Universal Design Ideas
		LO4	**Correlating** the design for all nad built environment for physically handicapped with respect to furniture design
		LO5	**Solution of** furniture design issues in old age homes
CO4	**Elaborate** concept of exterior furniture and landscaping elements	LO1	**Learn** the study of biomechanics
		LO2	**Judging** effect of environment and psychological effects of furniture design
		LO3	**Illustrating** different furniture design for such places
CO5	**Developing** confidence to build furniture for according to usage	LO1	**Associating** human scale with furniture and given space
		LO2	**Implementing** furniture design for comfort and proper functioning
		LO3	**Charting** about material type for office, children, residence
		LO4	**Experimenting** with different materials for changing trends and lifestyles
		LO5	**Create** different furniture designs for different spaces

REFERENCES:

1. De Chiara and Callender - Time Savers Standards for Building Types
2. De Chiara and Callender - Time Savers Standards for Architectural dataJulius penero and Martin Zelnik,"Human Dimensions and Interior Space"Whitney Library Of Design,NY 1979.
3. Time Saver Standards for Interior Design.
4. An invitation to Design, Helen Marie Evans.
5. Francis D.K.Ching, Interior Design Illustrated, VNR Publications, New York, 1987

ii) SUSTAINABLE INTERVENTIONS IN HISTORIC BUILDINGS (210814)

Objective –

The course aims to obtain knowledge of the creation and evolution of Architectural Conservation in India as well as in western world. It aims to explore the methods of Documentation as well as analysis for Intervention. This course aims to develop an overall understanding of the process of Historic conservation and Preservation.

UNIT-1 INTRODUCTION TO HISTORIC BUILDINGS

- Definition of Historic Buildings.
- Definition of Heritage.
- Why Intervention? Justification.
- Concepts of Values, Significance, Authenticity and Integrity.
- Conservation. Ethics in Conservation.

UNIT-2 RESEARCH IN INTERVENTIONS & CRITICAL ANALYSIS OF HERITAGE COMPONENTS

• Importance of Research in Heritage Conservation.

• Sources of information like books, archival photographs and maps, folklores, mythology, oral tradition and memories.

• Understanding the Scales of various heritage components: Buildings, Areas, and Towns, Region (Local, National, and International).

UNIT-3 DOCUMENTATION & DEGREES OF INTERVENTION IN HISTORIC BUILDINGS AND MONUMENTS

- Introduction to Heritage Database and Surveys for conservation
- Listing and Inventories
- Measured Drawing: Techniques of Measurement, Drawing and Presentation
- Photographic Documentation

• Degrees - Prevention of deterioration, Preservation of the existing state, Consolidation of the fabric, Restoration, Rehabilitation, Reproduction, Reconstruction

UNIT-4 DECAY AND REMEDIES

- Introduction to Decay in Cultural property, Materials and Structural failures
- Internal and External environment of historic buildings
- Climatic causes of decay
- Botanical, biological and microbiological causes of decay
- Insects and other pests as causes of decay
- Man-made causes of decay

UNIT-5 WHAT IS SUSTAINABLE INTERVENTIONS & DESIGNING IN HISTORIC CONTEXT

- Sustainable Interventions & its steps.
- Concepts of: - Imitation, Inspiration, Innovation, Influence, Evolution, New Design.

COs & LOs for Furniture Design **Overall Course Outcome:** The course aims to obtain knowledge of fundamental concepts and theories of Sustainable interventions which can be applied in historic buildings.			
CO1	Students will be able to understand the basic terminology of the subject.	LO1	**Understanding** basics of historic buildings
		LO2	**Understanding** definitions of Heritage
		LO3	**Discussing** the need of Interventions
		LO4	**Understanding** the concept of values, significance, authenticity, integrity and ethics
CO2	Students will be able to **i**dentify the stylistic characteristics of architecture, theories and importance of research	LO1	**Recalling** importance of research in Heritage Conservation
		LO2	**Relating** the sources of information and research
		LO3	**Reflecting** knowledge on various heritage components
CO3	Students will be able to understand the documentation techniques and degrees of intervention	LO1	**Identifying** various ways of collecting heritage database
		LO2	**Learning** the types of surveys, listing and documentations
		LO3	**Analysing** the type suitable for certain type of heritage
		LO4	**Correlating** the degrees of intervention with the condition of the heritage
		LO5	**Apply** the knowledge in documenting and assessing a heritage
CO4	Students will be able to elaborate concept of & types of Decay in a building and their remedies.	LO1	**Learn** the different types of decays in heritage building and precinct
		LO2	**Judging** effect of the different types of decays in heritage building and precinct
		LO3	**Illustrating** of the different types of decays in heritage building and precinct in a heritage building and precinct
CO5	Students will be able to design in Historic Context keeping in mind the sustainable solutions	LO1	**Associating** sustainability with historic design concepts
		LO2	**Implementing** sustainability in interventions of heritage building and precinct
		LO3	**Assessing** and applying concepts of , Inspiration, Innovation, Influence, Evolution, New Design

REFERENCES:

1. Kenneth Frampton, Modern Architecture: A Critical History, Thames and Hudson, London.
2. Sigfriedgiedion, .Space time and Architecture: The Growth of a new tradition, Harvard University Press.
3. Tzonis Alexander, Santiago calatrova, International Publications, January 2005, New York.
4. Steele James, Hassan Fathy - The complete works,London: Thames and Hudson.
5. Conservation of Historic Buildings by Fielden,Bernard, 2003, Architectural Press.
6. Guidelines for Conservation by Fielden, Bernard, 1989, INTACH, New Delhi.
7. Historic England, Practical Building Conservation: Conservation Basics, 2013, Routledge.
8. Contemporary Theory of Conservation by Salvador Munoz-Vinas, 2005, Elsevier.
9. Recording, Documentation, and Information Management for the Conservation of Heritage Places- Guiding Principles by Letellier, Robin, 2007, Getty Conservation Institute. Los Angeles.

(iii) ENVIRONMENT & ARCHITECTURE (210821)

Objective –
The course aims to obtain knowledge about Environmental studies and protection from rapid growing anthropogenic activities. Exploring various Architecture Techniques to mitigate them.

UNIT-1 INTRODUCTION TO THE STUDYOF ENVIRONMENT & URBAN DEVELOPMENT
Introduction, Concepts and Function: Introduction to environment, its meaning and growing importance in daily life. Built – Environment relationship.

UNIT-2 RELATIONSHIP BETWEEN ARCHITECTURE AND URBAN ENVIRONMENT
Role of Architects and Planners in Building Resilient Cities. Scope and Challenges in Indian Context.

UNIT-3 URBAN CHALLENGES
Urban Challenges to the Environment. Concepts like Waste management, Urban Heat Island Effect, Energy consumption, Climate change etc.

UNIT-4 GREEN RATING SYSTEMS IN ARCHITECTURE
Introduction to Green Rating Systems in India and Abroad. Criteria for listing under GRIHA LEAD, IGBC Etc

UNIT-5 ENVIRONMENTAL IMPACT ASSESSMENT
Introduction to Environmental Impact Assessment (EIA), Process including Scoping, Screening, Establishing Baseline conditions, Case examples.

<table>
<tr><th colspan="4">COs & LOs for Environment & Architecture</th></tr>
<tr><td colspan="4">Overall Course Outcome: The basic objective of this course is to develop the student's understanding towards the importance of ecological studies and environmental protection from rapidly growing anthropogenic activities. This course would let the students explore various architectural techniques in mitigating environmental degradation and achieving sustainable living.</td></tr>
<tr><td rowspan="4">CO1</td><td rowspan="4">Students will be able to summarize elementary knowledge to earth’s natural environment and Urban Development</td><td>LO1</td><td>Define basic terms used in Environmental Stufy.</td></tr>
<tr><td>LO2</td><td>Outline the relationship between built and Environment.</td></tr>
<tr><td>LO3</td><td>Analyze the concept of Environmental studies.</td></tr>
<tr><td>LO4</td><td>Conclude the various factors impacting environmental degradation, climate change, carbon footprint, relationship with human beings and built, Urban Development, etc.</td></tr>
<tr><td rowspan="4">CO2</td><td rowspan="4">Students will be able to highlight emerging human activities relating architecture & urban environment</td><td>LO1</td><td>List various human activities since industrialization till date impacting nature.</td></tr>
<tr><td>LO2</td><td>Demonstrate impact of such activities with the help of suitable case examples</td></tr>
<tr><td>LO3</td><td>Analyze the relationship between man and its natural surroundings, focusing on negative impacts of manmade activities on the environment.</td></tr>
<tr><td>LO4</td><td>Evaluate the need of environmental protection and economic activities</td></tr>
<tr><td rowspan="4">CO3</td><td rowspan="4">Students will be able to relate urban ecology with its challenges.</td><td>LO1</td><td>Define ecology in terms of growing urbanization and technological advancement</td></tr>
<tr><td>LO2</td><td>Summarize the need of alternative technologies to harmonize nature.</td></tr>
<tr><td>LO3</td><td>Develop environmental sensitivity</td></tr>
<tr><td>LO4</td><td>Examine application of available alternatives</td></tr>
<tr><td rowspan="4">CO4</td><td rowspan="4">Students will be able to perceive the role of green rating systems in architecture</td><td>LO1</td><td>Recollect the Green rating systems in India and abroad</td></tr>
<tr><td>LO2</td><td>Exemplify the application Green rating systems in Architecture</td></tr>
<tr><td>LO3</td><td>Relate various practical purpose of ecology and environment in the field of architecture and planning</td></tr>
<tr><td>LO4</td><td>Apply the various Green rating systems</td></tr>
<tr><td rowspan="2">CO5</td><td rowspan="2">Students will be able to assess the Environmental Impact</td><td>LO1</td><td>List various factors of EIA and its process</td></tr>
<tr><td>LO2</td><td>Assess the Environmental Impact over an area or specific region.</td></tr>
</table>

REFERENCES:

1. Fundamentals of Ecology by E.P. Odum
2. Review Our Dying Planet by Sarala Devi
3. Ecological Crisis: Reading for Survival by G. A. Love & R.M. Love

6. Elective- VII

OBJECTIVE-The objective of the subject is to introduce the students about the best teaching learning resources and programs initiated by the Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The course is opted from NPTEL platform in traditional mode.Elective- V

S. No.	Subject Code	Subject Name	Category	Maximum Marks Allotted									Total Marks	CT HRS	Contact Periods per week			Total Credits	Mode of Exam	Mode of Teaching (Offline/ Online)
				Theory Slot				Practical Slot			MOOC				L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam	Continuous Evaluation											
				End Sem.	Proficiency in subject/ course	Mid Sem.	Quiz/ Assignment /Sessional		Lab work & Sessional	Skill based mini project	Assignment	Exam								
6.	-	ELECTIVE VII	DE- 7	-	-	-	-	-	-		25	75	100	3	2	1	-	**3**	Offline *	MCQ

ELECTIVE VII#	210867	Research Methodology for Planning and Architectural Studies	opted from NPTEL platform (Jan June 2026)
	210866	Augmenting Design Thinking and Human-Computer Interaction	
	210865	Bioclimatic Architecture: Futureproofing with simple and advanced passive strategies	

7. Seminar / Workshop/ Training

. No.	Subject Code	Subject Name	Category	Maximum Marks Allotted							Total Marks	CT HRS	Contact Periods per week			Total Credits	Mode of Exam	Mode of Teaching (Offline/ Online)
				Theory Slot				Practical Slot					L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam	Continuous Evaluation									
				End Sem.	Proficiency in subject/ course	Mid Sem.	Quiz/ Assignment /Sessional		Lab work & Sessional	Skill based mini project								
7.	210819	Tour/ seminar / NASA/Workshop/ ining during winte break	SEC- 1(	-	-		-	50	-		50	50	-	-	2	**1**	Offline	SO

Tour/ seminar/ Workshop/ Training during winter break will be evaluated in VIII semester