No.of Teaching Weeks: 16	**Course Title: Architectural Design**
Contact Hours: per week : L : 0 S: 6	**Course Code: AP-101**
Contact Hours: per sem : L : 0 S: 96	**Ist YEAR – 2024-25, Semester I**
Credit: 06	**Course Cordinator: Saima Shakil**
Total Marks:100 (E=60 I=40)	**Studio Team: Shhilpi Sinha, Saima, Akash, Ankita**

Objectives:

It is intended to develop design skills, while engaging with creative and practical alternatives, based on knowledge gained, in the understanding of the technology, aesthetics and profession associated with architecture. The course is conducted with an objective to develop a student's subjective abilities, in the appreciation and creation of architectural form, as well as the crafting of built objects, and also to consciously use the processes and methodologies of design, whilst developing verbal and graphic communication skills.

Pedagogy:

The studio is planned to be conducted on an online mode adopting an internet friendly approach considering this pandemic situation, with the help of presentations,interactive and focussed group discussions and by attempting to create a creative and conducive environment.
The pedagogical approach for conducting the semester is proposed to be in a sequential manner divided under the following subheads:-
1.**Study**-Past Experiences,Present Circumstances(considering pre and post pandemic situations) and Expected Outcomes
2.**Intervention**- Tools and Systems to get the desired results
We have planned to have a process-driven approach to formulate exercises in a more structured manner and innovate some motivating activities for the new batch.

Expected Outcomes:

The students are expected to develop senstivity towards design, and also technical understanding, as an aid to design. It is an endeavour to make students be able to relate to architecture as an extension of life and environment. The students will also be guided to use the relevant architectural drawing equipment, to be used with full knowledge of their capacity.

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	OUTCOME
1	**WEEK 01**	**Orientation**		Introduction of the students-The students to prepare a poster:**"About Myself"** about their interests,creative skills and hobbies.Few online handouts along with undertakings will be distributed.Discussion on modalities of online classes.	Poster on "About Myself" on A3 Sheet		Introduction to the course,college and various SOP's, Sensitisation of the students to themselves, Understanding of the new-batch amongst each other.
	Studio 1	**Lecture-1**	**Orientation-**Introduction to the course,college with the help of videos and images and faculty,discussion on curriculum				
	Studio 2	**Lecture-2**	**Introduction** of our SOPs,basic introduction on architecture, its components and its relevance.			10	
2	**WEEK 02**	**Perception Building-Elements of Nature**		Students will be sensitised to be aware of their surroundings and attempt **"View from my Window"** in which they will observe and map activities happening in their surroundings from their respective residences.The	A2 Cartridge Sheet		Perception building and mind mapping of their familiar surrounding areas in a more sensitive way by the students.
	Studio 1	**Lecture-1**	**Perception Building-**by the method of observation,recording and mind mapping)				
	Studio 2	**Lecture-2**	Development of skills like visualisation,sensitisation and representation and think like a designer			10	
3	**WEEK 03**	**Visualisation & Analytical Skills**		Students will work in groups (2 members in each group). Identify an architect and study their work, design philosophies, signature elements and make presentation on A2 sheets	Minimum 2 A2 sheets for presentation	10	Architectural Vocabulary development.
	Studio 1	**Lecture-1**	**Visualisation and Enhancement of analytical skills**-Introduction of architectural vocabulary				
	Studio 2	**Lecture-2**				10	

4	**WEEK 04**	**Representaion of Ideas and Emotions using 2D and 3D Techniques**		Studio Exercise- Abstract compositions to be created,depicting 6 chosen emotions and representing them as follows:- a)Black N White Lines-Introduction of varying thicknesses as a modulating element to the composition lending depth and character to the composition. b)Poster to understand Colour Theory in group of 2 c)Abstract Composition using Colour d)Depiction of same emotions in a 3D Model e)Explanation of the created models with the help of a Concept Sheet	3-A2 Cartridge Sheets and 3D Model	10	Understanding of Emotions and their interpretation in terms of graphical representation and understa nding that how colour plays an imperitive role in depicting various emotions.
	Studio 1	**Lecture-1**	**Interpreting and Reinterpreting-**Study of **Emotions and Senses** (RBT-Saturday Orientation Lecture-Session 3)			10	
	Studio 2	**Lecture-2**	**Depiction of Emotion-**Understanding of Human Expressionsand the role played by Art,Colour,Lines and Sculptures.			10	
5	**WEEK 05**	**Representaion of Ideas and Emotions using 2D and 3D Techniques**		Continuation of Studio Exercise- Abstract compositions to be created in the studio with reference to the delivered lectures and discussions. **Final Stage-**Final outcome of the model derived by the students to represent mass and volume.	3-A2 Cartridge Sheets and 3D Model	10	Learning and Unlearning-Students are equipped to express their ideas without the use of words by utilising 2d and 3d representaions. (Development of Volumetric Forms)
	Studio 1	**Lecture-1**	**Depiction of Emotion-**Understanding the Colour Theory and how it is used graphically to represent emotion.			20	
	Studio 2	**Lecture-2**	**Unlearning and Learning-** Understanding the volumes and punctures in relation to emotions and abstract ideas.			**Total=60**	
6	**WEEK 06**	**Basic Aspects of Building Form and Space-Principles of Design**		Studio Exercise- Students to select 6 elements of Principles of Design from the given lecture and explain the same, using graphics and images and a small narrative, to corroborate the chosen elements of Principles of Design.	2 A2 Cartridge Sheet.		Application of design principles in nature and architecture for analysis of built-forms.
	Studio 1	**Lecture-1**	**Principles of Design-**Finding principles of design through nature with examples for concepts such as form,harmony,rhythm,emphasis,symmetr y etc.				
	Studio 2	**Lecture-2**	**Unlearning and Learning-** understanding the difference in the design process as compared to traditional forms of learning using the understanding of principles of design to			10	
7	**WEEK 07**	**Understanding of Built Objects and Space in Relation to Human Scale**		a)**Anthropometrics-**Students to study the dimensions of 5-10 objects of daily use and assess associated human scale.b)**Ergonomics-**To make freehand drawings of human figures using any 2 utility spaces and associated furniture (for eg-kitchens, toilets,bedroom etc.)	Human Scale Drawing-1:10 on A2 Cartridge Sheets		Basic conceptualisation of Human Body and its activities
	Studio 1	**Lecture-1**	Introduction of terms **Ergonomics** and **Anthropometrics-**Importance of Human body in Design				
	Studio 2	**Lecture-2**	Introduction of Standards in Library Publications and comparative analysis with respect to the students Physiognomy.(Orientation Lecture by SS)			10	
8	**WEEK 08**	**Understanding of Built Objects and Space**		Studio Exercise - Students to measure the canteen and adjacent area draft it on A2 sheet and start doing anthropometric and literature study of functions related to the design problem. Students will identify and work on the case study (1 primary and 1 secondary) abd cime up with their design concepts in	Mode of Presentation-A2 Cartridge sheets, scale 1: 20		Basic conceptualisation and modulation of space and understanding of segregation of space with the help of ongoing activity
	Studio 1	**Lecture-1**	Measured Drawings-canteen and surrounding area of our college campus Plan,Elevation and Sections				
	Studio 2	**Lecture-2**	Introduction to Design Problem-**Food truck**			10	
9	**WEEK 09**	**Test Week**		NA	NA		NA

	Studio 1	**Lecture-1**	NA				
	Studio 2	**Lecture-2**					
10	**WEEK 10**	**Design Exercise**		Discussion of case studies	Mode of Presentation-A2 Cartridge sheets		Introduction to design problem.Anthropometrics and ergonomics of human figure.Design Development 1 of the design problem
	Studio 1	**Lecture-1**	Design Development Stage-1				
	Studio 2	**Lecture-2**	Design Development Stage-1cont..				
11	**WEEK 10**	**Design Exercise**		Discussion and maeking of case studies	Mode of Presentation-A2 Cartridge sheets		Anthropometrics and ergonomics of human figure.Design Development 1 of the design problem
	Studio 1	**Lecture-1**	Design Development Stage-1				
	Studio 2	**Lecture-2**	Design Development Stage-1cont..			10	

12	**WEEK 12**	**Design Exercise**		Students to present and discuss the design (plans, sections, elevations)	Mode of Presentation-A2 Cartridge sheets and Block Model on 1:20		Design Development 2 of the design problem
	Studio 1	**Lecture-1**	Design Development Stage-2				
	Studio 2	**Lecture-2**	Design Development Stage-cont..			20	
13	**WEEK 13**	**Design Exercise**		Students to present and discuss the improved design (plans, sections, elevations)	Mode of Presentation-A2 Cartridge sheets and Block Model on 1:20		Design Development 2 of the design problem
	Studio 1	**Lecture-1**	Design Development Stage-cont..				
	Studio 2	**Lecture-2**	Design Development Stage-cont..				
14	**WEEK 14**	**Prefinal Design Problem Submission**		Students to present and discuss the improved design along with rendering(plans, sections, elevations)	Mode of Presentation-A2 Cartridge sheets and Model on 1:20		Predinal design submission
	Studio 1	**Lecture-1**	Design Development Stage-cont..(Prefinal submission)				
	Studio 2	**Lecture-1**	marking on pending sheets/ models			20	
15-16	**WEEK 15-16**	**Final Portfolio Submission**					
	Studio 1	**Lecture-1**	Funal portfolio marking...			20	

Suggested Readings:-

1.Ching, F.D.K.; Architecture Form, Space and Order, Van Nostrand Reinhold Staff, NewYork, 1996

2.Rudofsky,Bernard; Architecture without Architects,University of New Mexico Press, New Mexico

3.Rasmussen, Steen Eiler; Experiencing Architecture, The MIT Press, Cambridge,Massachusetts, 1977

4.Watson, Donald / Crosbie,Michael J.; Time Savers Standards for Architectural Design,Mc Graw Hill,New York, 2005

5.Chiara, Joseph De / Panero, Julius / Zelink Martin; Time Savers Standards for Interior design and Space Planning, Mc Graw Hill, New York, 2001

6.Harris, Charles W. / Dines, Nicholas T.; Time Savers Standards for Landscape Architecture, Mc Graw Hill, USA, 1998

7.Gideon, Siegfried; Space, time & Architecture, Harvard University Press

8.Robert Powell, “Tropical Asian House”, Select Books, 1999

9.Gill, Robert W.; Manual of Rendering with Pen and Ink, Thames and Hudson, London,1997

10. Alexander Christopher/Ishikawa Sara/Silverstein Murray;A Patter Language,Oxford University Press,New York,1977

11.Kennon,Paul;Pena,William;Wayne William,Architecture and You,Whitney Library of Design,NY,1981

12.DeBono Edward,"The Use of Lateral Thinking",Penguin Books Ltd,Harmondsworth,England,1967

No.of Teaching Weeks: 16
Contact Hours: per week : L : 2 S: 0
Contact Hours: per sem : L : 24 S: 0
Credit: 02
Total Marks:100 (E=60 I=40)

Course Title: History of Architecture
Course Code: AP-123
Ist YEAR – 2024-25, Semester I
Coordinator: Akash Sharma

Objectives:

The course broadly focuses on architectural products of various times and places within a broad chronological band.
To inform about various determinants of culture and context of the place of study.
To understand the role of culture, beliefs, myths, politics, economics, geography, materials and climate etc. in shaping architectural intent of buildings.

Pedagogy:

Pandemic Pedagogy: Considering Situation and Focus on good health behaviors:
•Use of online/e-learning strategies
•Assigning reading and exercises for home study
•On-Line Audio Visual Presentation and Way to Podcasts, Interactive session and disussions,
•Hosting online mini-classes with experts/seminars etc…
•Working on an Interactive manner on Online Worksheets

Expected Outcomes:

To give an overall understanding of the architecture, built/ unbuilt at Global Level and sequential productions rising from the cumulative effect of forces operating and intersecting in the regions. To inform about specific and prominent modes of architecture in terms of evolution, function, morphology and character. To give exposure to works that are architecturally exemplary and/or representative. To appreciate architecture as giver of particular and universal meaning.

S NO.	WEEK/	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED
1	**WEEK 01**	**Sketchfile/Research**		Introduction to History of Architecture Egyptian: Geographical features of Nile Valley, development of cultural and religious beliefs. Evolution of funerary architecture from Mastabas to Pyramids. **Keywords and Dictionary***	Discussion on Assignment 1 Egyptian Architecture with prominent examples. Digital Text and Handmade Sketches		Introduction to Ancient River Valley Civilisation-Pyramids
	Studio 1	**Lecture-1**	Introduction to History of Architecture and Ancient river valley civilizations				
	Studio 2	**Lecture-2**					
2	**WEEK 02**	**Sketchfile/Research**		Prominent case examples at Saqqara, Medun, Cheops and Giza. Architecture of Mortuary & Cult Temples with case examples of Luxor, Ammon and Karnak,Rock-cut examples at Abu Simbel etc.			Egyptian River Valley Civilisation-Rock Cut Examples
	Studio 1	**Lecture-1**	Ancient river valley civilizations				
	Studio 2	**Lecture-2**					
3	**WEEK 03**	**Sketchfile/Research**		Landscape and geographical description of fertile crescent, study of stages of civilization from early city states to Sumerian, Babylonian, Assyrian and Persian with prominent examples of Ziggurats at Ur, Urnamu etc.; Palaces and/or cities of Ur, Babylon, Khorsabad	Assignment 1	10	Understanding of Mesopotamian Architecture
	Studio 1	**Lecture-1**	Mesopotamian				
	Studio 2	**Lecture-2**					
4	**WEEK 04**	**Sketchfile/Research**		Assyrian and Persian Architecture with prominent examples of the Palace at Persipolis. Introduction to Indus	Discussion on Assignment 2 Mesopotamian Architecture with prominent examples. Digital Text and Handmade Sketches		Understanding of Mesopotamian Architecture,Persian Architecture,Babylonian Architecture with typical examples
	Studio 1	**Lecture-1**	Mesopotamian				
	Studio 2	**Lecture-2**	Introduction to Indus Valley Civilization				

5	**WEEK 05**	**Topic of Study**		Factors contributing to the development of settlements along Indus Valley its extents and links with other civilizations of time, prominent features of civilization			Typical examples of Indus River Valley Town Planning
	Studio 1	**Lecture-1**	Indus Valley Civilization				
	Studio 2	**Lecture-2**					
6	**WEEK 06**	**Topic of Study**		Town Planning, residential and public buildings with case examples of cities of Mohenjodaro, Harappa, Lothal.	Assignment 2	10	Undertanding the planning of Cities of Indus River Valley Civilisation with typical examples
	Studio 1	**Lecture-1**	Discussion on Town Planning during Indus Valley Civilization				
	Studio 2	**Lecture-2**					
7	**WEEK 07**	**Topic of Study**		Significant Markers: INDIA - Early Iron Age Civilization: Wooden Architecture of Indian Origins: Forest Dwellings, Kutiya and Grama. Beginning of Buddhist and Jain Architecture; the Hinayana and Mahayana Sects and their contribution to the development of architecture in India.	Discussion on Assignment 3 Indus Valley Civilization with prominent examples. Digital Text and Handmade Sketches		Classical Civilization with typical examples
	Studio 1	**Lecture-1**	Introduction on Classical Civilizations				
	Studio 2	**Lecture-2**					
8	**WEEK 08**	**Topic of Study**		Ashokan School, Buddhist Rock Cut Architecture: the Chaityas and Viharas at Ajanta and Ellora; the Stupa: Form and Evolution; Buddhist Architecture in Gahdhara.			Classical Civilization with typical examples
	Studio 1	**Lecture-1**	Buddha, Buddhism, Buddhist Architecture				
	Studio 2	**Lecture-2**					
9	**WEEK 09**	**Test Week**				20	
	Studio 1	**Lecture-1**	Minor Test				
	Studio 2	**Lecture-2**					
10	**WEEK 10**	**Topic of Study**		Minoan, Myceanean and Classical Greek Minoan and Mycenean: Palace at Knosos, the Lion Gate, the appearance of the Megaron.	Assignment 3	10	Greek Architecture with typical Examples
	Studio 1	**Lecture-1**	Greece - Early Iron Age Civilizations				
	Studio 2	**Lecture-2**					
11	**WEEK 11**	**Topic of Study**		Greek City states – Athens, Delphi, Sparta; Evolution of the Temple; the Orders; the Parthenon. Discussion on Rome and its Architecture	Discussion on Assignment 4 Greece - Early Iron Age Civilizations and Roman Architecture with prominent examples. Digital Text and Handmade Sketches		Greek Architecture with typical Examples
	Studio 1	**Lecture-1**	Greece - Early Iron Age Civilizations				
	Studio 2	**Lecture-2**	Introduction to Rome and its Architecture				

12	**WEEK 12**	**Topic of Study**		Structural and Engineering Achievements: the arch, Vault and the dome; Temples: Pantheon; Arenas: Colloseum; Therma: Caracalla; Aqueducts; the forum and the basilica			Roman Architecture with typical Examples
	Studio 1	**Lecture-1**	Rome and its Architecture				
	Studio 2	**Lecture-2**					
13	**WEEK 13**	**Review**		Revision and Discussion on the coursework coming in the Test	Assignment 4	10	Revision of Topics
	Studio 1	**Lecture-1**	Revision 1 Question & Answer Session 1				
	Studio 2	**Lecture-2**					
14	**WEEK 14**	**Review**		Preparation of Question Bank			Revision of Topics
	Studio 1	**Lecture-1**	Question and Answer Session 2				
	Studio 2	**Lecture-2**					
15-16	**WEEK 15-16**	**Review**		Revision of the coursework and discussion on important topics and questions and suggestions on how to attempt the questions in the exam.			Revision of Topics
	Studio 1	**Lecture-1**	Final Revision and Discussion				
	Studio 2	**Lecture-2**					

Suggested Readings:-

1 Tadgel, Christopher History of Architecture in India Paperback – 6 Jul 1994

2 Kostof, Spiro; History of Architecture, Oxford University Press, New York, 1995

3 Raeburn, Michael; Architecture of the Western World, Popular Press, England, 1988

4 Rapoport, Amos, Human Aspects of Urban Form, Pergammon Press, New York, 1977

5 Shukla, D.N.; Vastu Shastra, Munshiram Mohanlal, New Delhi, 1993

6 Alexander, Christopher; A Pattern Language, Oxford University Press, New York, 1977

7 Lynch, Kevin; The Image of the City, Joint Centre Publication, USA, 1960

* **Keywords and Dictionary will prepared from every topic and explain in limited words. It includes sketches also.**

No.of Teaching Weeks: 16
Contact Hours: per week : L : 0 S: 5
Contact Hours: per sem : L : 0 S: 80
Credit: 05
Total Marks:100 (E=60 I=40)

Course Title: Building Construction
Course Code: AP-104
Semester II
Course Cordinator :Saima Shakil
Studio Team: Saima Shakil , Akash, Ankita, Dushyant

Objectives:

The studio will focus on the construction techniques and processes involved in construction of a double storey building with all necessary details and suitable materials. The studio will help students to think practically while designing.

Lectures, powerpoint presentations, videos, models, site visits with documented report and workshops

Expected Outcomes:

Students are expected to deveop the understanding and awareness about different methods of construction and conventional techniques.
They will learn the methods of detailing out a building through sections, details and plans.
Through regular site visits they are expected to understand details of construction and relate them with their drawings done in the studio.
Document the site visit reports with relevant pictures and sketches for future references.

S NO.	WEEK/	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED
1	WEEK 01	**Sketchfile/Research**		Due to pandemic situation, students will be asked to measure their own house and draw the sketches on A3 sketch book. (Site visit: their own house)	Students will measure and draw all the building components and the plans on A3 sketchboo.	NA	learn about components involved in double storey building
	Studio 1	Lecture-1	Familiarize the students about number and types of drawings required to construct a two storey building				
	Studio 2	Lecture-2	Lecture on site visits: how and what to observe on site. How to measure various components of a building.Introduction to basic Building Components				
2	WEEK 02	**Sketchfile/Research**		Based on the site visit. students will be asked to prepare a report on building components, materials, construction details and sizes of various areas in detail. Medium for report: ppt/A3 presentation	class work evaluation	Grade	Understand about different materials, spaces, heights and areas of a building and their sizes
	Studio 1	Lecture-1	Lecture on building materials and door window hardwaresSite report review				
	Studio 2	Lecture-2					
3	WEEK 03	**Sketchfile/Research**			A1 sheet submission (Submission date: Next studio)	10	Understand how to make plans, elevations and translate the measurements taken by students on sheets on scale
	Studio 1	Lecture-1	Report evaluation and discussion. Introduction to sheet-1	Measure drawings(Plans, elevations, and sketches along with material specificastions.. Scale 1:100			
	Studio 2	Lecture-2					
4	WEEK 04	**Sketchfile/Research**		Continuation of last class work and implementation of various things based on the lecture given by faculty.	NA	NA	
	Studio 1	Lecture-1	Discussion on plans and introduction to door-window schedule and lecture on sunken slabs, RCC construction and slopes in toilets				
	Studio 2	Lecture-2					
5	WEEK 05	**Topic of Study**		Marking on plans and discussion on elevations grading on elevations.	A1 sheet submission Sheet 1	20	Understand how to identify elements in plans and make elevation and also to learn about function of each area/ element of a building
	Studio 1	Lecture-1	Marking on plans and discussion on elevations			Grade	
	Studio 2	Lecture-2	Lecture on how to make sections of a two storey building.				
6	WEEK 06	**Topic of Study**		Introduction to sectional details and the alternate building details. Discussion on waterproofing and RB terracing	class work marking	Grade	Understant the details/ alternative building details of a building
	Studio 1	Lecture-1	Discussion on elevation and sections made by students.				
	Studio 2	Lecture-2	Introduction to sectional details and the alternate building details.				
7	WEEK 07	**Topic of Study**		Elevations, sections and details: Marking and faculty lecture on staircase types and details. Students will be asked to make staircase details and make the	A1 Submission Sheet 2	20	Understant the details/ alternative building details of

	Studio 1	Lecture-1	lecture on staircase construction and types of staircase	report on it in sketchbook.			a building
	Studio 2	Lecture-2					
8	WEEK 08		**Topic of Study**	Pin board discussion on the research done by students on staircase types and materials and marking on sheet no 3	A1 Submission Sheet 3 (Sections and details)	10	Understand functions, roles and types of staircase and details
	Studio 1	Lecture-1	Discussion on sketchbook and sheet			Grade	
	Studio 2	Lecture-2					
9	WEEK 09		**Test Week**	TEST WEEK	NA	NA	NA
	Studio 1	Lecture-1	MINOR TEST				
	Studio 2	Lecture-2					
10	WEEK 10		**Topic of Study**	Introduction to Door details on various components, types- frameless, ledged, hollow core flush etc, typical joinery details involver and the accessories. Introduction to sheet 5	A1 Submission Sheet 4 (Staircase)	10	Understand joinery details of doors and various types of doors available
	Studio 1	Lecture-1	Introduction to Door details on various components, types- frameless, ledged, hollow core flush etc,				
	Studio 2	Lecture-2	Lecture on typical joinery details involved and the accessories.				
11	WEEK 11		**Topic of Study**	Window details. Different types of flush windows, panelled windows with joinery details of fittings. Introduction to sheet 6	A1 Submission Sheet 5	10	Understand joinery details of windows and various types of windows available
	Studio 1	Lecture-1	Introduction to Windows:-Types and details of flush windows, Panelled windows and Mosquito proof windows etc. Site report review				
	Studio 2	Lecture-2					
12	WEEK 12		**Topic of Study**	RCC/RB Roofing and Terracing using conventional technique of construction	Sheet 7: Terrace Plan with mumty, parapet details, location of various building services through building sections showing different layers of thermal insulation & waterproofing.	10	RCC slabs
	Studio 1	Lecture-1	Introduction to R.C.C structures - Concept, advantages, disadvantages, different material used in R.C.C with their properties.				
	Studio 2	Lecture-2	Reinforcement brick work and its use in slabs and lintels, limitation of the use of R.B work.				
13	WEEK 13		**Review**	RCC/RB Roofing and Terracing using conventional technique of construction	Sheet 7 submission	10	Rb roofing and terracing
	Studio 1	Lecture-1	General principle of designing of R.B slabs. Terracing, thermal insulation and various techniques involved.				
	Studio 2	Lecture-2	Students to observe these details at site and research through books and market survey about the materials and make a report.				
14	WEEK 14		**Review**	Marking of pending sheets	NA	NA	NA
	Studio 1	Lecture-1	PRE FINAL SUBMISSION				
	Studio 2	Lecture-2					
15-16	WEEK 15-16		**Review**	PORTFOLIO MARKING	PORTFOLIO MARKING	10	NA
	Studio 1	Lecture-1	FINAL SUBMISSION				

	Studio 2	**Lecture-2**					

Suggested Readings:-

BC PUNMIA, BUILDING CONSTRUCTION

R C RANGWALA, BUILDING CONSTRUCTION

Barry'S Introduction To Construction Of Buildings
EGYANKOSH ; NPTEL WEB

No.of Teaching Weeks: 16
Contact Hours: per week : L : 2 S: 0
Contact Hours: per sem : L : 32 S: 0
Credit: 02
Total Marks:100 (E=60 I=40)

Course Title: Theory of Structures
Course Code: AP-122
Semester II
Course Cordinator :Kavita Revo
Studio Team:Kavita Revo

Objectives:

The primary objective is to familiarise students with different structural materials available and analysis of loads and stresses in a structural member.This course introduces timber and masonry as structural material . The course is structured to develop an understanding about structural behaviour before and after application of loads(Gravity loads only). It teaches the students to design a building using timber and masonry in compliance with the relevant IS codes. Analysis of trusses is also taught via this course

Pedagogy:

The Course would be delivered through power point presentation/ Class room teaching. The consolidation of concepts is achieved by problem solving, assignments, discussions, site vists and group model making exercises. Students are introduced to the Indian standards at an early stage to get them acquainted with the relevant clauses.

Expected Outcomes:

At the end of the course the student would be able to do the design of structural members for timber and masonry structures. Student would be capable of analysing trusses which may be useful in future for designing. Students would be well conversant with the IS codes related to timber and masonry structures. Students can apply the knowledge aquired in their design and BC work.

S NO.	WEEK/	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED
1	**WEEK 01**	**Sketchfile/Research**		Introduction, timber as structural material, merits, demerits, Seasoning of timber, Structural timbers available in India, Structural properties and their allowable stresses.	Students study IS 883. To check the allowable stresses of various timbers available in India.	10	Students know timber as a structural member
	Studio 1	**Lecture-1**	Introduction to the course plan and evaluation system.				
	Studio 2	**Lecture-2**					
2	**WEEK 02**	**Sketchfile/Research**		M/Z calculation for timber beams. Introducing terms Moment of resistance, section modulus. Load calculations and checking safety of beam under loads.			Can design a simple timber beam
	Studio 1	**Lecture-1**	Simple Timber beam design based on IS883				
	Studio 2	**Lecture-2**					
3	**WEEK 03**	**Sketchfile/Research**		Practicing problems on Load carrying capacity of columns., Safe load evaluation and design		20	Can analyse a timber column
	Studio 1	**Lecture-1**	Introduction to Timber Columns				
	Studio 2	**Lecture-2**	NA				
4	**WEEK 04**	**Sketchfile/Research**		Practicing problems on Load carrying capacity of columns., Safe load evaluation and design	Assignment no. 1 Based on Timber Structures	20	Can design a simple timber column
	Studio 1	**Lecture-1**	Timber Columns Continued				
	Studio 2	**Lecture-2**					
5	**WEEK 05**	**Topic of Study**		Timber trusses, terminology related to trusses. Methods of Analysis. Method of Joints and Method of sections.			Students know the use of truss and understand it's stability in structure
	Studio 1	**Lecture-1**	Introduction to Truss Analysis.				

	Studio 2	**Lecture-2**					
6	**WEEK 06**	**Topic of Study**		Problems based on this method			Students can apply this method of joints to analyse truss
	Studio 1	**Lecture-1**	Method Of Joints- Truss Anaysis				
	Studio 2	**Lecture-2**					
7	**WEEK 07**	**Topic of Study**		Problems based on this method	Assignment 2 Truss Analysis	20	Students can analyse truss with this approach
	Studio 1	**Lecture-1**	Methods of Sections- Truss Analysis				
	Studio 2	**Lecture-2**					
8	**WEEK 08**	**Topic of Study**		Presentation on Load transfer mechanism and application of compression structures since Roman era. Model Demonstration			Application of compression str is understood
	Studio 1	**Lecture-1**	Introduction to masonry structures. Compression strutures like Arches, Vaults and Domes				
	Studio 2	**Lecture-2**					
9	**WEEK 09**	**Test Week**					
	Studio 1	**Lecture-1**	MINOR TEST			20	
	Studio 2	**Lecture-2**					
10	**WEEK 10**	**Topic of Study**		Merits/ demerits. Bricks, classification, compressive strength and other properties.			Students can identify framed & load bearing structures
	Studio 1	**Lecture-1**	Load Bearing Structures and Framed structures.				
	Studio 2	**Lecture-2**					
11	**WEEK 11**	**Topic of Study**		Analysis of load bearing structures: Allowable stresses in masonry; effects of slenderness ratio, area and shape factors on allowable stresses			Understand design aspects of masonry structures
	Studio 1	**Lecture-1**	Introduction to IS 1905 : 1987 Code of practice for structural use of unreinforced masonry				
	Studio 2	**Lecture-2**					
12	**WEEK 12**	**Topic of Study**		Design Example/Practice. calculating Effective Height Effective length End conditions			Can design a simple load bearing wall
	Studio 1	**Lecture-1**	Design of Load Bearing wall				
	Studio 2	**Lecture-2**					
13	**WEEK 13**	**Review**		Functions. Soil investigation and terms like bearing capacity, Safe bearing capacity, ultimate bearing capacity. Various methods to check SBC of soil its significance in footing design	Assignment 3 On Load bearing wall design	20	Students can do basic design calculation, load assessment for a load bearing wall.
	Studio 1	**Lecture-1**	Introduction to footings . Types of footings under masonry structures				
	Studio 2	**Lecture-2**					

14	**WEEK 14**	**Review**		Design of Footings- Simple stepped footing for a masonry wall.			can design simple footings
	Studio 1	**Lecture-1**	Footings Contd				
	Studio 2	**Lecture-2**					
15	**WEEK 15**	**Review**		Pure torsion, Theory of pure torsion, Torsional moment of resistance, Assumptions in the theory of pure torsion, polar modulus, Power transmitted by a shaft, Torsional rigidity.			Understand torsion in structural members
	Studio 1	**Lecture-1**	Introduction, Torsion in shafts				
16	**WEEK 16**	**Lecture-1**	Revision				

Suggested Readings:-

1. Strength Of Materials by S Ramamrutham.
2. Engineering Mechanics , by R S Khurmi
3. Strength Of Materials By RS Khurmi

No.of Teaching Weeks: 16
Contact Hours: per week : L : 0 S: 8
Contact Hours: per sem : L : 0 S: 128
Credit: 08
Total Marks:100 (E=60 I=40)

Course Title: Architectural Design
Course Code: AP-201
IInd YEAR – 2024-25, Semester III
Course Cordinator: JYOTI LUTHRA
Studio Team: MS SARIKA NARAYAN & PROF-SAUMYA KOHLI

Objectives:

 To design a functional Students Welfare Centre, by in-depth studied understanding of the needs of the student user groups; with a set of requirements conclusive to their total development.
To understand the face of contemporary architecture through a study of master architects, their projects, their design philosophies and their role in shaping contemporary architecture
 To integrate well, the Students Welfare Centre's form with the surrounding physical environment, so that the form and scale of development relates to the landscape, providing students with easy pedestrian and vehicular accessibility to other campus Locations.
 To develop activity layout, appropriate to the current trends, incorporating modern facilities.
 To pay special attention to landscape, both hard and soft; providing well-integrated lively spaces; creating a micro environment, along with an in-built eco-friendly environment.
 It is important to realise that only a low-rise development (maximum permissible height of 09 metres) will achieve the target design without sacrificing the important planning and design requirements of compactness, with mixed land use development, avoiding monotony of built form.
 The design has to be a climate responsive one and should make a statement in sustainable design, with its own identity.

Pedagogy:

The study of biographies can be combined with design exercises, which are completed after the study of the master architect. The student immerses himself in the persona and the design vocabulary of the architect to produce a building, or an element, as if he were the master. Small educational or other Institutions e.g. Primary Secondary Schools, Health Centrers, Post office, Art Gallery or equivalent.
Exercises before beginning of Design
(To be Demonstrated and Taught)
2W working out Program/requirements for multiple interconnected functions.
1Week Basic options of grouping and arrangements of blocks. Horizontal and vertical interconnections between buildings and outdoor spaces.
12Weeks Design Problem
Conceptualization and Design Development
The Process of Creativity is initiated either through brainstorming sessions or through a design exercise. It helps find and unlock one's own brand of Creativity and hereby practice it at a later stage. These assignments help to stimulate one's imagination and resort to "in the box," out of the box," and "new box" thinking. Creative ability awakens the psychological qualities, builds up the skills and adds a new dimension to the intellect of the student.

The design problem will be explored parallely in other studios such as Architectural Graphics, Building construction and Drawing. This will help the students experiment with massing models, form development,Structural explorations, color theories which would be applied directly to their deisgn concepts and strategies. The whole process of design development will be interspersed with time problems wherever the plugins are required.
"Thought expressed with the minimum of words"
Images, Colors, Visual Metaphors, Words, Fonts, Textures, Explanations Whether students make digital or physical mood boards, they're an important step in creating a cohesive design style for any leading project.

Expected Outcomes:

1. The students are expected to learn both matter and mind of the program, and derive architectural solution for community based deisgn problem. 2. Ability to apply specific elements of architecture to give desired character and identity to the building considering context and sustainabilty in mind. 3. Understanding and applying the characteristics of circulation within and between different functions in buildings for public use and develop site plans accordingly. 4. To understand government policies and initiatives taken for the development of such centres. 5. To Aspire to create a strong functional program for creating a model Community Primary School of self reliance and envrionmental nurturing.
 This design studio semester will equip students with better understanding of site layout planning requirements, and integration of various multi-functional built spaces within a designated area. The students will also be sensitised to effect of climate, materiality and form on their designs.

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION/ DELIVERABLE	MARKS	EXPECTED OUTCOME
1	**WEEK 01**	**Warm up Exercises-1**		Post Discourse, Students will be allocated To understand the face of contemporary architecture through a study of master architects, their projects, their design philosophies and their role in shaping contemporary architecture	discussion on Webclass		The student immerses himself in the persona and the design vocabulary of the architect to produce a building, or an element, as if he were the master.
	Studio 1	**Lecture-1**	Student Orientation, Discussion & Discourse. Initiating Group work and Warm up Exercises ARCHITECTURAL BIOGRAPHIES Level-01				
	Studio 2	**Lecture-2**	**HOLIDAY**				
2	**WEEK 02**	**Warm up Exercises-2**		"Thought expressed with the minimum of words" To integrate well, the Students Welfare Centre's form with the surrounding physical environment, so that the form and scale of development relates to the landscape, providing students with easy pedestrian and vehicular accessibility to other campus Locations. To develop activity layout, appropriate to the current trends, incorporating modern facilities.	Live submisisons/ discussion on Webclass	10	"Thought expressed with the minimum of words"Images, Colors, Visual Metaphors, Words, Fonts, Textures, Explanations Whether students make digital or physical mood boards, they're an important step in creating a cohesive design style for any leading project.
	Studio 1	**Lecture-1**	Students Presentations on ARCHITECTURAL BIOGRAPHIES				
	Studio 2	**Lecture-2**	introduction of Level 2 Warm Up Excercise PANDEMIC MEMORIAL Project-आभार INTRODUCTION WITH LECTURE				
3	**WEEK 03**	**Exercises-2 (DISCUSSION STAGE)**		The intervention should be emotional, powerful, poetic and can take any form/function as per the proposed narrative.	Live submisisons/ discussion on Webclass		How can you turn this adversity into memorializing the commitment of the frontline workers from design tribute
	Studio 1	**Lecture-1 31.08.2021**	MAJOR DESIGN PROBLEM STUDENTS WELFARE CENTRE, IIT (D) @ NEW DELHI express through ppt presentation on idea generation: mental mapping, Case study ,Big Idea for design, Basic concept, catchy notes, quotations, reference images, small Sketchnoting etc				
	Studio 2	**Lecture-03.09.2021**	MAJOR DESIGN PROBLEM STUDENTS WELFARE CENTRE, IIT (D) @ NEW DELHI:To design a STUDENTS WELFARE CENTRE: A multi-functional activity; to serve as a place to develop the overall personality of the students of IIT(D); exposing them to the multi-faceted aspects of real life, and making them leaders of the socio-cultural and technology management changes.				

4	**WEEK 04**	**MAJOR DESIGN PROBLEM STUDENTS WELFARE CENTRE, IIT (D) @ NEW DELHI**		Teaching / Learning Areas, Other Areas And Components Of School,1. Standard of school designs,5. Anthropometric standards (indoor and outdoor both) Dimensions and clearances for Children,8. classroom furniture and outdoor furniture Dimensions specifications chairs and tables, books shelves, storage space, circulation, drinking water, stairways, spiral stairs, ramps, Doorways, Corridors, DOORS, 15. study for foundation level to preparatory level students From Play school to 5 standards, Psychological Considerations, Child Psychology	Live submisisons/ discussion on Webclass		All will be present in the form of sketches, images, reference views, drawings, text and pictorial details. Final Requirements with basic Area Requirement as conclusion/analysis. (Group wise)
	Studio 1	**Lecture-1**	□ The design has to be a climate responsive one and should make a statement in sustainable design, with its own identity. □ To pay special attention to landscape, both hard and soft; providing well-integrated lively spaces; creating a micro environment, along with an in-built eco-friendly environment. □ It is important to realise that only a low-rise development (maximum permissible height of 09 metres) will achieve the target design without sacrificing the important planning and design requirements of compactness, with mixed land use development, avoiding monotony of built form. LITRATURE STUDY INTRODUCATION			20	
	Studio 2	**Lecture-2**	Literature data's collections and discussion with students General requirements and standards of a school infrastructure and standards for special need children: space planning 20. Universal design considerations				
5	**WEEK 05**	**Predesign Stage-1 Literature Study**		General requirements and standards of a school infrastructure and standards for special need children: space planning 20. Universal design considerations with area requirements.	Live submisisons/discussion on Webclass		.Study of various standards and applications in design process Derivations through Building codes, Site analysis and context.
	Studio 1	**Lecture-1**	Literature Study presentation by students & Case studies discussion: diverse idological practices in different ZONES			10	
	Studio 2	**Lecture-2**	Case studies discussion with students-progress stage				
6	**WEEK 06**	**Predesign Stage-1 CASE STUDIES (LIVE EXAMPLES)**		Post Discourse, Students will be allocated their case studies for data collection and comparative study. An architectural site analysis will look at issues such as site location, size, topography, zoning, traffic conditions and climate. The analysis also needs to consider any future developments, or changes to the sites surroundings, such as a change of roads designations, changing cultural patterns, or other significant building developments within the area.	Live submisisons/discussion on Webclass		Mental Mapping with Ideation study. Identifying the relevance of case studies Corelation of case studies with of the Intellectual developement in children.
	Studio 1	**Lecture-1**	CASE STUDIES- final presentation drawings and comparative analysis: final submission site analysis:Introduction of site details and discussion on methodology for conducting site analysis Decoding Live Examples study			10	
	Studio 2	**Lecture-2**	Site Analysis data collection: discussion with students-progress stage				
7	**WEEK 07**	**Predesign Stage-1 SITE STUDY**		A contextual analysis is a research activity that looks at the existing conditions of a project site, along with any imminent or potential future conditions	Live submisisons/ discussion on Webclass		Understanding the context of a site is key to enabling the designer to weave the new design in with the existing fabric of the site. It allows us to understand the existing opportunities, or problems in a site, and make informed decisions on how to respond to our findings
	Studio 1	**Lecture-1**	Site Analysis data collection: Final Presentation by students			10	
	Studio 2	**Lecture-2**	Sketch Design 1:Concepts Development,Area program refinement / Zoning / Mind maps,Bubble diagrams – anthropometrics,block model				
8	**WEEK 08**	**Design Development-1**		Lecture on concept and design development processes. Students will explore deriving area programme through graphical representation. Students will generate ideas, Stories, doodles and come up with concept writeups. Outcome: Final Area Programme & Concept sketch	Live submisisons/ discussion on Webclass		Area Program derivation and exploring concept processes.
	Studio 1	**Lecture-1 05.10.2021**	Sketch Design 1:Concepts Development,Area program refinement / Zoning / Mind maps,Bubble diagrams – anthropometrics,block model				
	Studio 2	**Lecture-2**	Site plan, Block Model(Form development in Graphics)Submission-Preview			15	
9	**WEEK 09**	**Test Week**		NA			
	Studio 1	**Lecture-1**	NA				
	Studio 2	**Lecture-2**	NA				
10	**WEEK 10**	**Design Development-2**		Corelate the site planning to various development domains . Students have to achieve the spatial character through their diverse pre design study. Overall School Ideologies should reflect in the architectural spaces. Students have to express their form derivations through their explorations in the graphics studio.	Live submisisons/ discussion on Webclass		Architectural expressions through sections,models and drawings
	Studio 1	**Lecture-1**	**HOLIDAY**				
	Studio 2	**Lecture-2**	Site plan, Movement plan, Massing model, Form Models,Floor plans, Sections, Concept elevations				

11	**WEEK 11**			Students will start working on different floor plates .Students will progress with their design development by encorporating building byelaws and local govenment policies in their designs.	Live submisisons/ discussion on Webclass		
	Studio 1	**Lecture-1**	Design Development of floor plans including site planning & Development of site Landscape plan of site Building			15	
	Studio 2	**Lecture-2**	Site plan, Floor Plans, Sections and isometric sectional views, Presentation board				
12	**WEEK 12**		**Design Development-3**	Students will continue exploring their form through sections and three dimentional views and make the relevant changes based on regular critical analysis. Students will work on detailed block models to parallely understand the scale of their spaces	Live submisisons/ discussion on Webclass		Presentation, Quality of drawings and Overall Design understanding
	Studio 1	**Lecture-1**	Design Development of floor plans including site planning & Development of site Landscape plan of site Building submission				
	Studio 2	**Lecture-2**	Site plan, Floor Plans, Sections and isometric sectional views, Presentation board,esign, floor plans, sections & details Submission-Preview			15	
13	**WEEK 13**		**Prefinal**	Review and discussion with students before their Prefinal submission in the second studio. All prefinal will be an online pinboard jury along with all details site and building models	Live submisisons/ discussion on Webclass		Presentation, Quality of drawings and Overall Design understanding
	Studio 1	**Lecture-1**	Architectural Design Development Portfolio with building model				
	Studio 2	**Lecture-2**	Submission-Preview			15	
14	**WEEK 14**		**Review**	All unmarked submission if any would be reviewed in this week. Students will get the final chance to clear their back log submisisons.	Live submisisons/ discussion on Webclass		
	Studio 1	**Lecture-1**	Pending submissions, Back log Reviews				
	Studio 2	**Lecture-2**	Pending submissions, Back log Reviews				
15	**WEEK 15-16**		**Final Submission**	Final Portfolio Review: closed Jury	Closed Jury submissions	30	Drawing Communication skills and overall Presentation quality.
	Studio 1	**Lecture-1**	Submission-Preview				
	Studio 2	**Lecture-2**	Submission-Preview				

Suggested Readings:-

- Ching, F., Architecture, form, space and order, New York, Van Nostrand Reinhold staff 1996
- Watson, D.I., Time savers standards for Architecturall Design, New York: Mc Graw Hill 2005
- Haris, C.W., Time savers standards for landscape Architecture, USA., Mc Graw hill, 1998
- Rasniussen, S.E.,(1077), Experiencing Architecture, Cambridge, Massachusetts: The MIT press 1997

No.of Teaching Weeks: 16
Contact Hours: per week : L : 3 S: 0
Contact Hours: per sem : L : 48 S: 0
Credit: 03
Total Marks:100 (E=60 I=40)

Course Title: Theory of Structures-III
Course Code: AP-221
IInd YEAR – 2024-25, Semester I
Course Coordinator: Ms Kavita K Revo

Objectives:

The objective is to teach the historical background, composition, constituent materials used for making concrete and their properties.The course deals with the effect of chemical and mineral admixtures in concrete and various quality tests as per IS specifications for Concrete in fresh and hardened state.The subject exposes students to terms like workability & curing.Significance of concrete mix design and its relation to strength
To equip the students with basic understanding of the behaviour of reinforced concrete structures and to develop the skill to analyze and design basic RCC members with limit state method using relevant IS codes.

Pedagogy:

The Course is mainly delivered through power point presentation and on board lectures. The consolidation of concepts is achieved by problem solving, assignments, discussions, site vists and group model making exercises. Students are introduced to the Indian standards at an early stage to get them acquainted with the relevant clauses and their usage Continuous Evaluation includes Minor test, Quizes and a comprehensive university exam

Expected Outcomes:

At the end of course the students would develop an ability to think logically about concrete technology and its site application. Students would be familiar with old and new design philosophies and would be able to analyse and design basic RCC members like single /Doubly reinforced beams, One way/two way slabs, Axially loaded columns and footings with the help of IS 456 and design aids SP16.

TEACHING PLAN FOR SEMESTER I (Session 2024-25)

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED OUTCOME
1	**WEEK 01**	**Sketchfile/Research**		Presentation on cement and its composition. Manufacturing process. Types of cement and their application in construction.	Students to study different types of cements & document it on A4 sheets in their hand writing		Students know the composition manufacturing, grades and types of cement & application
	Studio 1	**Lecture-1**	Introduce course delivery plan,prerequisits of the subject and evaluation system . Discuss Concrete Technology			10	
	Studio 2	**Lecture-2**	NA				
2	**WEEK 02**	**Sketchfile/Research**		Video demonstration of various instruments needed for tests and procedure of tests. Students to study relevant IS codes for tests on cement & prepare handouts.			Students know how the quality of cement is tested in lab.
	Studio 1	**Lecture-1**	Grades of cement and various lab tests.				
	Studio 2	**Lecture-2**	NA				
3	**WEEK 03**	**Sketchfile/Research**		Concrete Mix design Abrahms law of w/c ratio. Strength of concrete. Grades of concrete. Volume batching/ weight batching Ready mix concrete, merits/demerits. Workability at site.Importance of curing.Use of admixtures			Students exhibit knowledge of concepts related to concrete mix design, strength, durability , workability etc. Also tests to check various parameters
	Studio 1	**Lecture-1**	Introduction to RCC and its composition. Properties of concrete./ Grades of concrete				
	Studio 2	**Lecture-2**	NA				
4	**WEEK 04**	**Sketchfile/Research**		Grades of steel. Yield stregth of steel bars. Mild steel Vs HYSD bars. Protection against corrosion. Durability parameters. Latest trends in RCC.	Assignment No. 1 Concrete Technology	10	Knowledge related to steel used in reinforce-ment & protection
	Studio 1	**Lecture-1**	Types of reinforcement used in RCC.				
	Studio 2	**Lecture-2**	NA				
5	**WEEK 05**	**Topic of Study**		Presentation on various design philosophies. Comparison between old and new trends of design. Explaining the terms like Tension zone & compression zone. Neutral Axis. Role of reinforcement in RCC members, concrete cover etc.			Students know the available design methods. Merits & demerits of all and related terms
	Studio 1	**Lecture-1**	Introduction to RCC design of structural members . Limit state method of design				
	Studio 2	**Lecture-2**	NA				
6	**WEEK 06**	**Topic of Study**		Discussion on assumptions for RCC design. Starting with the Design of SSB.			Students can use IS456 ans SP 16

	Studio 1	Lecture-1	Introducing IS456 and SP16 design aids.	Singly reinforced and Doubly reinforced beams. Types of sections- Under Reinforced Over reinforced and Balanced. Numericals to find depth Of NA			
	Studio 2	Lecture-2	NA				
7	WEEK 07	Topic of Study		Design problems on beams. Finding Depth Of NA. Identifying S/R or D/R beam. Use of IS456 and SP16 Reinforcement Detailing. Making sketches.			Students can design a simple supported beam. and draw reinforcement detail
	Studio 1	Lecture-1	Design of Singly/Doubly reinforced beams. Design steps using charts and tables.				
	Studio 2	Lecture-2	NA				
8	WEEK 08	Topic of Study		Presentation on Shear reinforcement Types of stirrups. Design problems on stirrup design using IS456 and SP16			students can design shear reinforcement for SSB
	Studio 1	Lecture-1	Design of shear Reinforcement in beams.				
	Studio 2	Lecture-2	NA				
9	WEEK 09	Topic of Study					
	Studio 1	Lecture-1	MINOR TEST WEEK				
	Studio 2	Lecture-2	NA				
10	WEEK 10	Topic of Study		Design steps for slabs. Design Problem on two way slabs. Reinforcement Detailing. Using SP16 design charts	Assignment 2 Design of beam/ slab.	10	Students can design simple slabs . And draw reinforcement detail
	Studio 1	Lecture-1	RCC design of Slabs. Introduction, types, load transfer in slabs. Design principle				
	Studio 2	Lecture-2	NA				
11	WEEK 11	Prefinal		Presentation on Columns. Behaviour under loads. Reinforcemnt in columns. Design steps for Axially loaded column. Design problem on RCC columns.			Students can design a column for given load
	Studio 1	Lecture-1	Design of Axially loaded RCC columns				
	Studio 2	Lecture-2	NA				
12	WEEK 12	Review		Design Steps for Circular columns Introduction to footing design.	Assignment no 3 Design of column and footings	10	Students can design helical reinforcement for circular columns using IS456
	Studio 1	Lecture-1	Design of Circular Columns with helical reinforcemnent.				
	Studio 2	Lecture-2	NA				
13	WEEK 13	Test Week		Design Steps for RCC footing Design problem on footings.			Students know different types of RCC footings and design of simple isolated footing
	Studio 1	Lecture-1	Footing Design Contd				
	Studio 2	Lecture-2					
14	WEEK 14	Review		Deflection in beams, causes, permissible limits as per codes. Ways to control deflection in beams Different methods to calculate slope and deflection in beams. Numerical practice.			Students can calculate slope & deflection in beam and ensure safety
	Studio 1	Lecture-1	Deflection of beams.				

	Studio 2	**Lecture-2**	NA	Numerical practice.			
15	**WEEK 15**	**Final Submission**		Calculating slenderness ratio of columns. Load carrying capacity of column	Assignment no 4 Slope & deflection	10	Students can calculate SR in columns. also stress distribution in columns
	Studio 1	**Lecture-1**	Columns and Struts. Stress distribution on column section.	Middle third rule Core /kernel of columns			
	Studio 2	**Lecture-2**	NA				
16	**WEEK 16**	**Final Submission**		Sharing question bank, discussin ol univ papers and doubt clarification			Students prepared for univ exam
	Studio 1	**Lecture-1**	REVISION				
	Studio 2	**Lecture-2**	NA				

Suggested Readings:-

1. Concrete Technology , by M S She http://www.iricen.gov.in/LAB/
2. Reinforced Concrete,Limit state Design by A K Jain
3. Strength Of materials, S Ramamrutham, IS 456 and SP16 Design Aids

No.of Teaching Weeks: 16
Contact Hours: per week : L : 0 S: 3
Contact Hours: per sem : L : 0 S: 48
Credit: 03
Total Marks:100 (E=60 I=40)

Course Title: Architectural Drawing
Course Code: AP-206
IInd YEAR, Semester IV
Course Cordinator : Vidushi,Guest Faculty
Studio Team: Vidushi

Objectives:

The Objective of the course is to understand and learn the use of software available for architectural applications. Integration of practical exercises along with the design studio project

Pedagogy:

The course is conducted to meet the stated objective through lectures/ demos, practical work on computers, assignments. The students are allowed to bring their own laptops and practice application and commands in autocad. The students would draft their design projects and other exercises in autocad. Studio marking would be done in every class for active participation of students.

Expected Outcomes:

It is expected that the course will help students understand and learn the the use and applications of commands in autocad software.
To learn basic 2D and 3D commands in autocad.
To learn various techniques of rendering and hatches in drawing.
To translate and draft the manual drawings to autocad drawings.

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED OUTCOME
1	**WEEK 01**	**Sketchfile/Research**		Measure your own home: Students would open and explore autocad software in computer lab- understanding scale through measuremts & hand drafting.introduction to the residence plan assignment, students will make a quick sketch of threir residence, then will do a measuring drawing for the same plan.	NA		understanding of scale and proportion
	Studio 1	**Lecture-1**	Inroduction to the various softwares available for Architects. Brief about the syllabus to be covered in the semester.				
	Studio 2	**Lecture-2**					
2	**WEEK 02**	**Sketchfile/Research**		Practice of the commands taught in class.drafting the same plan on 1:50 scale on a sheet. Produce the autocad drawing for the same plan by using the taught commands.	Studio Marking	10	understanding basics of autocad, while drafting
	Studio 1	**Lecture-1**	Introduction to the basic autocad commands: setting the drawing, units, line, circle, rectangle, polygon, trim etc				
	Studio 2	**Lecture-2**					
3	**WEEK 03**	**Sketchfile/Research**		Practice of commands taught in class. making changes to the plan by improvising it according to their respective needs and choices of their parents. And incorporate the same changes and the drafted drawing as well by inserting furnitures flooring etc.			learn how to adjust different layouts in same spaces as per different needs and purposes
	Studio 1	**Lecture-1**	Introduction to various hatches in computer and demo of how to take print from autocad software				
	Studio 2	**Lecture-2**					
4	**WEEK 04**	**Sketchfile/Research**		learning new commands for producing the previous assignment and finalise the plan for the day.			learning more aboit autocad with new commands and understand to draft the double line plan on it.
	Studio 1	**Lecture-1**	Application of the commands covered so far + layers in autocad and Exercise 1- 2D composition using all the commands				
	Studio 2	**Lecture-2**					
5	**WEEK 05**	**Topic of Study**		introduction to the photoshop rendering assignment based on the same residence plan, produced in the previous week. Learning new commands in autocad and photoshop basics related and required for the assignment.	Submission	15	learning the basics of photoshop with the introduction and initials stages of it.
	Studio 1	**Lecture-1**	Introduction to text styles, types, dimention style, more advance commands like pline, spline, area calculations etc, introduction to the basic redering techniques in photoshop				
	Studio 2	**Lecture-2**					
6	**WEEK 06**	**Topic of Study**		Learning new commands in autocad and photoshop basics related and required for the previous assignment. Working on the photoshop rendering assignment.			understanding to implement the basics of autocad and photoshop for rendering and developing a presentation drawing.
	Studio 1	**Lecture-1**	Revision of all the commands + continuation of exercise-2				

	Studio 2	**Lecture-2**					
7	**WEEK 07**	**Topic of Study**		reviewing the previous assignments and discussing the doubts and problems , introduction to the next photography assignment	Studio Marking	10	understanding the level achieved by students throug Q/A session and moving forward with the introduction of new assignment.
	Studio 1	**Lecture-1**	Introduction to blocks, editing creating, insertion, attributes and xrefs				
	Studio 2	**Lecture-2**					
8	**WEEK 08**	**Topic of Study**		rastering the photograph clicked by the the students individually on the autocad. introducing more commands related to accomplish this assignment.			to learn how to develop an autoad file from a image with the help of new commands
	Studio 1	**Lecture-1**	Introducion to pagesetup, workspace and model space, sheet composition on different scales				
	Studio 2	**Lecture-2**					
9	**WEEK 09**	**Topic of Study**		finalising the photograph rastering and start rendering it on photoshop. introduction of more details required in photoshop to complete the assignment.	studio marking	15	learn to render a autoad file of photograph in photoshop, using more cammands and ways of photoshop
	Studio 1	**Lecture-1**	introduction to the photoshop wth more advanced commands				
	Studio 2	**Lecture-2**					
10	**WEEK 10**	**Topic of Study**		rendering the rastered photograph on photoshop.introduction of more details required in photoshop to complete the assignment.			learn to render a autoad file of photograph in photoshop, using more cammands and ways of photoshop
	Studio 1	**Lecture-1**	Introducion to Raster image and how to convert map/drawing/ image on scale in autocad + Introduction to exercise-4				
	Studio 2	**Lecture-2**					
11	**WEEK 11**	**Prefinal**		introducing remaining commands and converting all the produced work in form of pdfs, later converting all the pdfs in a compiled format of powerpoint presentation.			understanding basics of powerpoint presentation and develop a compiled file for the entire work in form of ppt and pdf's
	Studio 1	**Lecture-1**	introduction to the powerpoint presentation with the basic				
	Studio 2	**Lecture-2**					
12	**WEEK 12**	**Review**		doubt clearing session with the remaining learning and application of the autocad, photoshop and powerpoint softwares			understanding the level of students achieved in the taught softwares though Q/A.
	Studio 1	**Lecture-1**	Portfolio review + comments to be implemented + revised/ improved sheets + Inroduction to basic 3D commands				
	Studio 2	**Lecture-2**					
13	**WEEK 13**	**Test Week**		prefinal submission	Submission	20	Prefinal Progress
	Studio 1	**Lecture-1**	Quick revision				
	Studio 2	**Lecture-2**					
14	**WEEK 14**	**Review**					
	Studio 1	**Lecture-1**	Introduction to rendering softwares & other 3d softwares				
	Studio 2	**Lecture-2**					

15-16	**WEEK 15-16**	**Final Submission**		final submission		30	Final Progress
	Studio 1	**Lecture-1**	Portfolio submission				
	Studio 2	**Lecture-2**					

Suggested Readings:-

1.Mastering AutoCAD 2018 and AutoCAD LT 2018 , by Brian C. Benton and George Omura

2.AutoCAD 2007 and AutoCAD LT 2007 Bible by Ellen Finkelstein

No.of Teaching Weeks: 15

Contact Hours: per week : L : 2 S: 0

Contact Hours: per sem : L : 32 S: 0

Credit: 02

Total Marks:100 (E=75 I=25)

Objectives:

To learn the fundamentals of lighting,lighting design and fundamentals of acoustics and principles in designing various built er and exterior lighting and acoustics of a building.

Pedagogy:

The students would learn to overview their designs to optimise all lighting requirements. This will help them to plan and orient parametres of light and sound.

Expected Outcomes:

Students can utilize the knowledge obtained in this theory class by designing certain aspects in a building, designing lighting a

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVI
1	**WEEK 01**	**Topic of Study**		Discussion on lighting and priciples along with the int syllabus and topics to be c forthcoming lectures. Intro
	Studio 1	**Lecture-1**	Introduction about the subject and objective of the course. Topics that would be covered in the semester. General discussion on students understanding about lighting and acoustics	
	Studio 2	**Lecture-2**		
2	**WEEK 02**	**Topic of Study**		Lecture with ppt presentat
	Studio 1	**Lecture-1**	Lighting -Nature of light , Transmission, Vocabulary of artificial lighting: Lumens, Lux, M.F., R.I.R, Lighting level requirements for various areas, visual comfort	
	Studio 2	**Lecture-2**		

3	**WEEK 03**	**Topic of Study**		Lecture with ppt presentat daylight,automatic controls (Interior and Exterior).Lum calculation.
	Studio 1	**Lecture-1**	Types of Luminaries – Decorative commercial, Industrial, Outdoor, Working out room index ratio and coefficient of utilization, Light fittings	
	Studio 2	**Lecture-2**		
4	**WEEK 04**	**Topic of Study**		Topics of Discussion and F Parameters of day lighting factor,penentration factor,c Methods,techniques and s lighting,glare and types,so renewable energy and sou
	Studio 1	**Lecture-1**	Glare - Types of glare, Colour rendering index (CRI), CCT, Colour rendition,	
	Studio 2	**Lecture-2**		
5	**WEEK 05**	**Topic of Study**		Topics of Discussion and F Parameters of day lighting factor,penentration factor,c Methods,techniques and s lighting,glare and types,so renewable energy and sou
	Studio 1	**Lecture-1**	Lecture on Daylighting. Day lighting: Physical parameters of day lighting, Day light penetration, Day light factor	
	Studio 2	**Lecture-2**		
6	**WEEK 06**	**Topic of Study**		Presentation of ppt - by stu 1)
	Studio 1	**Lecture-1**	(Presentation - group work)-Study lighting of one project and present it in class. Mode of presentation PPTs that include photographs, sketches, plans, analysis. Topics for Project: Restaurant, Bar and Disc,	
	Studio 2	**Lecture-2**		
7	**WEEK 07**	**Topic of Study**		Presentation of ppt - by stu 1)
	Studio 1	**Lecture-1**	(Presentation - group work)-Study lighting of one project and present it in class. Mode of presentation PPTs that include photographs, sketches, plans, analysis. Topics for Project: Restaurant, Bar and Disc,	
	Studio 2	**Lecture-2**		
8	**WEEK 08**	**Topic of Study**		Understanding sound & wa Speed of sound in differen Sound power & sound pre Measurement of sound pre power (db, dba, dbc, laeq. Frequency bands (octave
	Studio 1	**Lecture-1**	Acoustical concepts: Wave theory, Sound power, Sound intensity, Decibels, Sound power level, Sound intensity level, Sound pressure level, frequency bands concept of reflection, absorption, transmission.	

	Studio 2	**Lecture-2**		
9	**WEEK 09**	**Topic of Study**		Lecture with ppt presentat
	Studio 1	**Lecture-1**	Absorption coefficient, NRC, Sound absorption materials, fibrous, membrane, resonators, perforated facing, application techniques.	
	Studio 2	**Lecture-2**		
10	**WEEK 10**	**Topic of Study**		Lecture with ppt presentat
	Studio 1	**Lecture-1**	Noise control by absorption, Sound transmission, Transmission loss, Composite barriers, Noise reduction between rooms, Light construction.	
	Studio 2	**Lecture-2**		
11	**WEEK 11**	**Prefinal**		Lecture with ppt presentat
	Studio 1	**Lecture-1**	Reverberation time (RT), Calculation of RT, Sample problems, RT and noise criteria for spaces for speech and music.	
	Studio 2	**Lecture-2**		
12	**WEEK 12**	**Review**		NA
	Studio 1	**Lecture-1**	**MINOR TEST WEEK**	
	Studio 2	**Lecture-2**		
13	**WEEK 13**	**Test Week**		Lecture with ppt presentat
	Studio 1	**Lecture-1**	Acoustical design of enclosed spaces for speech and music, reflection analysis, echoes, flutter echo, foci. Acoustical design consideration for enclosed spaces- auditorium, music rooms, seminar hall etc.	
	Studio 2	**Lecture-2**		
14	**WEEK 14**	**Review**		Lecture with ppt presentat Discussion

	Studio 1	**Lecture-1**	Acoustical design consideration for enclosed spaces- auditorium, music rooms, seminar hall etc.	
	Studio 2	**Lecture-2**		
15	**WEEK 15**	**Final Submission**		
	Studio 1	**Lecture-1**	Doubts n Discussion	
	Studio 2	**Lecture-2**		

Suggested Readings:-

Kaorve Mende,Designing with Light and Shadows published by Images
1Building Acoustics 1st Edition, Kindle Edition
by Tor Erik Vigran (Author)
2"Architectural Lighting: Designing with Light and Space (Architecture Briefs)
by Hervé Descottes (Author)"
3Designing With Light: The Art, Science and Practice of Architectural Lighting Design 1st Edition
by Jason Livingston (Author)

Course Title: Lighting and Acoustics
Course Code: AP-228
Semester IV
Course Cordinator : Ar. Jyoti Luthra
Studio Team: Ar. Jyoti Luthra

ıvironmnets. Architects are responsible in designing different aspects of interior

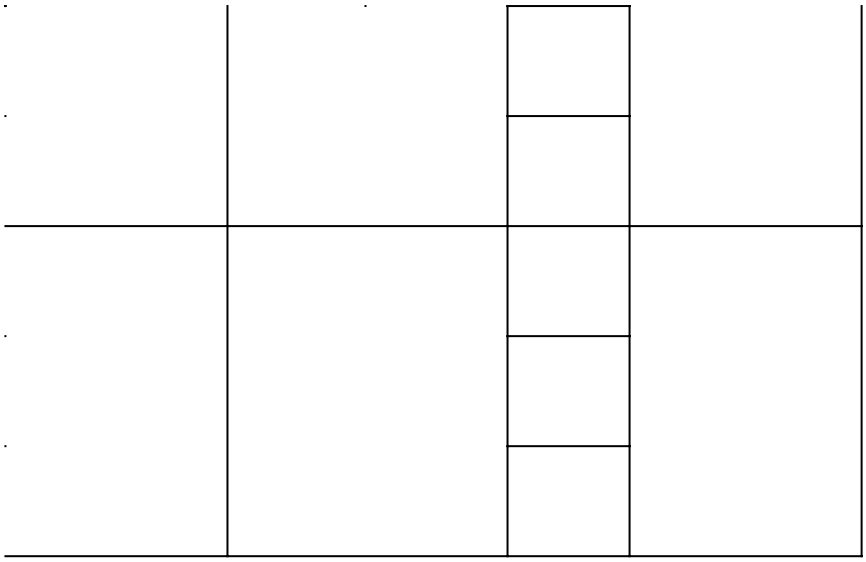
their buildings in specific site situations and topography based on such cruicial

ınd acoustics.

TY	SUBMISSION	MARKS	EXPECTED OUTCOME
lighting design roduction to the covered in the duce Assignments.			Introduction to the syllabus
ion			Understanding about basics of lighting, Visual Comfort Photometric Quantities

ion: Integration with s and devices. ıen method of			Understanding types of lamps and luminaire
Research- ,daylight,daylight design sky concept, strategies of day ılar light and ırce of light,.			Students will have an understanding of parameters of daylighting
Research- ,daylight,daylight design sky concept, strategies of day ılar light and ırce of light,			Design strategies for artificial lighting
udents (Assignment	**Assignment 01**	10	Design strategies for artificial lighting
udents (Assignment			
ave theory ıt mediums ssure essure and sound ..) & 1/3 octave bands)			understand acoustics. concepts of wave theory , sound power etc.

ion			Sound absorption materials, fibrous, membrane, resonators, perforated facing, application techniques.
ion			to understand noise and noise control methods. transmission loss.
ion			Numerical: RT
			NA
ion	**Assignment 02**		
ion + Assignment 2			



No.of Teaching Weeks: 16
Contact Hours: per week : L : 0 S: 5
Contact Hours: per sem : L : 0 S: 80
Credit: 5
Total Marks:100 (E=60 I=40)

Course Title: Building Construction V
Course Code: AP-303
Semester V
Course Cordinator : MOHD SHOEB ALAM
Studio Team: MOHD SHOEB ALAM & & Jyoti Luthra

Objectives:

The basic objective is to understand the principles of construction technology and be able to apply to a proposed architectural expression.The schedule has been envisaged as a spiral of knowledge through progressive complexities of construction. The objective of the studio is to integrate the understanding of services with structural complexity of a large building with multiple basements.

Pedagogy:

The studio will be conducted through a series of lectures & simuklated site situations, to enable students to understand and learn the construction techniques of large scale RCC construction , aspects of compopsite construction and the integration of services . Students will research and conduct online site studies in order to better acquaint themselves with topics of the course. The Students would get expose to the service systems like Plumbing, electrical and fire fighting through the understanding of basements and the structural design details to adjust these services.

Expected Outcomes:

The students are expected to develop senstivity towards construction techniques , detailing of building as required , laws and codes related to large scale constructions, and equipping themselves with the knowledge of integrations of various components for the construction of the building

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED OUTCOME
1	**WEEK 01**	**Sketchfile/Research**		Introduction to the course, definition of basement & relevant issues-grids/ structure/services/core/ramp stairs,parking,safety, ventilation, construction,maintenance.			Understanding the structure in a three dimantional view
	Studio 1	**Lecture-1**	Revisions & Brainstorming :Why basements are required in buildings. Single level basement. Multi-level basements. Deep basement foundation like raft etc. Water proofing of basement.				
	Studio 2	**Lecture-2**	Introduction to an Commercial Basement Space/Size/Grid				
2	**WEEK 02**	**Sketchfile/Research**		Students assigned task of making a section of a 3 level basement, with further modifications and discussions on it, in the next class. Students will also be symultaneously asked to ocvert their sketches into a three dimensional model.	Student submit Sketch basement Layout and the associated part 3d model		
	Studio 1	**Lecture-1**	Working out basement plan, Ramp ent., exit, car parking & vehicular circulation in basement. "				
	Studio 2	**Lecture-2**	Students given topics in groups of various aspects of RCC Basements, associated components and services				
3	**WEEK 03**	**Sketchfile/Research**		Working drawings will be made over a period of 8 weeks which will be added as the class proceeds. Preparation of basement plan showing car parking & vehicular circulation.	Student Power point presentation		
	Studio 1	**Lecture-1**	Working out basement plan, Ramp ent., exit, car parking & vehicular circulation in basement. "				
	Studio 2	**Lecture-2**	Student Presentation-1				
4	**WEEK 04**	**Sketchfile/Research**		Adding drainage channel, sumps, ventilaton rooms in lowest basement with integrated core & car parking.	Submission of basement plan after adding drainage system,sumps, ventilation rooms etc. in earlier prepared basement plan.		
	Studio 1	**Lecture-1**	Integrated service core requirements and location of various components of core(Staircase & Lift Lobby)			**15**	
	Studio 2	**Lecture-2**					
5	**WEEK 05**	**Topic of Study**		Adding drainage channel, sumps, ventilaton rooms in lowest basement with integrated core & car parking.	Student Power point presentation		

	Studio 1	**Lecture-1**	Drainage system(channels & sumps etc.), Ventilation, Finishing of basement.				
	Studio 2	**Lecture-2**	Student Presentation-3				
6	**WEEK 06**		**Topic of Study**	Marking of fire tank,U.G. Tank,S. T.P.,A.C. Plant in basement plans & in sections showing how to takeout services from building.	Student Power point presentation		
	Studio 1	**Lecture-1**	Discussion on basements of the building having 2 or more basements & the effect on services.				
	Studio 2	**Lecture-2**	Student Presentation-3				
7	**WEEK 07**		**Topic of Study**	VERTICLE STUDIO	VERTICLE STUDIO		
	Studio 1	**Lecture-1**	VERTICLE STUDIO				
	Studio 2	**Lecture-2**					
8	**WEEK 08**		**Topic of Study**	Fire fighting system in basement & fire escape staircases in basement. Marking of fire tank,U.G. Tank,S. T.P.,A.C. Plant in basement plans & in sections showing how to takeout services from building.			
	Studio 1	**Lecture-1**	Working out services of Ground & upper floors through upper basement. Fire Tank,U.G. Tank, STP, D.G. room, AC Plant in basement.				
	Studio 2	**Lecture-2**					
9	**WEEK 09**		**Topic of Study**	All Basement with Services review, Service Core details, Ramp Details, Sump Details etc.	Submission 1st , 2ND and 3RD basement plan, with Sections and relevant details		
	Studio 1	**Lecture-1**	Review of all Basement Drawings(1-3)			**30**	
	Studio 2	**Lecture-2**	Special lecture- Guest Lecturer				
10	**WEEK 10**		**Test Week**	NA	NA		
	Studio 1	**Lecture-1**	NA				
	Studio 2	**Lecture-2**					
11	**WEEK 11**		**Topic of Study**	Students Sketch and create 3D models of the Framing detail and its affects on the facade of the building. The structural integration with the Facade cladding detail is understood at thi stage.			
	Studio 1	**Lecture-1**	Structural Framing of RCC Structure in Commercial Building with associated Building Facade detail				
	Studio 2	**Lecture-2**					
12	**WEEK 12**		**Topic of Study**	Students work on Framing Drawings, External Wall sections, Structural Glazing details	Students submit Framing Plans and relevant 3d models with sketches of facade designed for their commercial building		
	Studio 1	**Lecture-1**	Introduction To High Performance Windows , structural glazing , curtain glazing				
	Studio 2	**Lecture-2**					
13	**WEEK 13**		**Topic of Study**	Students work on Framing Drawings, External Wall sections, Structural Glazing details			
	Studio 1	**Lecture-1**	Discussion on previous Topic				

	Studio 2	**Lecture-2**					
14	**WEEK 14**	**Topic of Study**			Students Submit framing Plan and external wall section with relevant elevation details of the Facade designed		
	Studio 1	**Lecture-1**					
	Studio 2	**Lecture-2**					
15	**WEEK 15**	**Topic of Study**		All reports submission	A3 printout reports		
	Studio 1	**Lecture-1**	All Reports & Case study Submissions in Prints				
	Studio 2	**Lecture-2**					
16	**WEEK 16**	**Topic of Study**		FINAL SUBMISSION for semester total of 200 marks	A1 size printouts and A3 printout reports		
	Studio 1	**Lecture-1**	Portfolio Submission				
	Studio 2	**Lecture-2**					

Suggested Readings:-

1.Barry,R(1999),Construction of Buildings,East West Press Pvt. Ltd,New Delhi

2.Mckay,WB(1988),Building Construction(Vol I,II,III,IV),Orient Longman,London

3.Allen,E(1999)Fundamentals of Building Construction:Materials and Methods.John Weily & Sons, New York.

4.Punamia BC (1993) Building Construction,Laxmi Publications(P) Ltd,New Delhi

5.Chudley,R(1988)Building Construction Handbook.Butterworth Heinemann,Oxford

No.of Teaching Weeks: 16
Contact Hours: per week : L : 2 S: 0
Contact Hours: per sem : L : 32 S: 0
Credit: 2
Total Marks:100 (E=60 I=40)

Course Title: Energy and Fire Safety I
Course Code: AP-327
Semester V
Course Cordinator : Mohd Shoeb Alam

Objectives:

ENERGY SYSTEMS (ELECTRICAL)
1. to facilitate the students with building services that supports the functioning of a building in the area of Energy and fire safety compliances.
2. To develop the understanding of students about electrical services and their application to building design.
FIRE SAFETY
3.To understand the importance and functioning of fire safety systems.
4. To develop the understanding of fire code and their application in various builidngs.

Pedagogy:

Engage the student in class with in Demonstration ,discussion diagrammatic representation of electrical and fire safety systems.
Explain them about each term related to Energy and Fire safety compliance
Explore the simple physical mechanism,market survey and conducting some site visits
Architectural application through Design Studio
Oral presentation and live study, report ,ppts by the students.

Expected Outcomes:

At the end of course the students would develop an ability to think about more logically ways to intergate electrical and fire services while designing/over design development stage.
To learn about space allocations for required services.
Emphasise buildings as a total expression of integrated systems & services;
Emphasise the planning, location of equipment, accessibility and the occupied area for the particular servicewithin the building;
Students gain an appreciation of these services through their own design interventions/solutions.

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED OUTCOME
1	**WEEK 01**	**Sketchfile/Research**		Lecture & discussion Through PPt Presentation: Overview Electricitygeneration,transmission & Distribution System Resources Of Energy Types Of Power Plant STUDENTS:Note taking,Questions & Discussions			students gain awareness & knowledge about the energy systems and
	Studio 1	**Lecture-1**	Introductory class,energy overview,sourse of energy,basic types of Power Generation Plants				
	Studio 2	**Lecture-2**					
2	**WEEK 02**	**Sketchfile/Research**		Lecture & discussion Through PPt Presentation: Types of Natural Sources Types Of Power Plant and working mechanism STUDENTS:Note taking,Questions & Discussions Based on Lecture	**(ASSIGNMENT 1) HAND WRITTEN A4-Assignment** STUDENTS :need to submit	**10**	Students Have To Understand About the Energy Resource and Energy Generation systems:High Voltage Distribution
	Studio 1	**Lecture-1**	Mechanical Transportation Intro&types Details Lifts, brief Lecture on Renewable & Non Renewable source of energy & Types of Power Plant Specialized lectures from technical people in the field				
	Studio 2	**Lecture-2**					
3	**WEEK 03**	**Sketchfile/Research**		Lecture & discussion Through PPt Presentation: Power Transmission System Power Distribution System Electricity Supply & Distribution to the end user. Transformers and switch gears – Layout of substations STUDENTS:Note taking,Questions & Discussions Based on Lecture	STUDENTS :need to Prepare notes		Students would be able to recap the content and able get connected with transmission system from Generation to utilization of power.Electrical Power Systems
	Studio 1	**Lecture-1**	Lecture on Electricity transmission to utilization systems AC& DC current and its use.(unit-2)				
	Studio 2	**Lecture-2**					
4	**WEEK 04**	**Sketchfile/Research**		Lecture & discussion Through PPt Presentation: Electricity Supply & Distribution to the end user. Basics of electricity – Single / Three phase supply ESS,Role of LT,HT & Transformer (Types) STUDENTS:Note taking,Questions & Discussions Based on Lecture	**(ASSIGNMENT 1) HAND WRITTEN A4-Assignment** STUDENTS :need to submit	**10**	Students Have To Understand About the distribution systems,ESS Components,High and Low side , Underground Electrical Service & Electrical Power Systems in Buildings
	Studio 1	**Lecture-1**	Lecture on Electricity distribution system LT & HT Electric Protection Systems,Transformer Star/Delta connection,				
	Studio 2	**Lecture-2**					
5	**WEEK 05**	**Topic of Study**		Lecture & discussion Through PPt Presentation: Earthing for safety – Types of earthing –	STUDENTS :need to Prepare notes		To impart knowledge about Planing aspects of ESS.Design of

	Studio 1	**Lecture-1**	Earthing, Grid Stations Planning Electric Sub-Station,captive power generations (DG set) inverter & UPS with Basic Electrical Materials and Methods	ISI specifications Power Distribution in Small Buildings STUDENTS:Note taking,Questions & Discussions Based on Lecture			Electrical Services for Buildings, earthing, building protection
	Studio 2	**Lecture-2**					
6	**WEEK 06**		**Topic of Study**	Lecture & discussion Through PPt Presentation: Protective devices in electrical installations Electrical control and safety devices-switches, fuse, circuit breakers, earthing, Lightning conductors etc. Emergency supply-standby (generators, invertors) & UPS. STUDENTS:Note taking,Questions & Discussions Based on Lecture	STUDENTS :need to Prepare notes Market survey of Electrical materials and electrical appliances		Different type of loads and their individual protections. Electrical fittings and accessories and their installations.
	Studio 1	**Lecture-1**	Safety Devices (Fuses,MCBS,ELCBS),basic wiring system introduction & Inverter Ups				
	Studio 2	**Lecture-2**					
7	**WEEK 07**		**Topic of Study**	VERTICLE STUDIO	VERTICLE STUDIO		
	Studio 1	**Lecture-1**	VERTICLE STUDIO				
	Studio 2	**Lecture-2**					
8	**WEEK 08**		**Topic of Study**	Lecture & discussion Through PPt Presentation: electrical services in the building Technical terms and symbols for electrical installations and Accessories of wiring Selection of cable/wire sizes To study the electrical systems and their applications in various building typology STUDENTS:Note taking,Questions & Discussions Based on Lecture	**(ASSIGNMENT 2) HAND WRITTEN A4 SHEET Assignment** sketch :**student able to draw or formulate wiring lay-out, diagrammatic representation**		The students would be familiarize Types of wires, wiring systems and their choice – Planning electrical wiring for building – Main and distribution boards
	Studio 1	**Lecture-1**	Wiring system (Batten /Conduit) & Lighting Arrestors Power Load Calculations,Electrical layout plan and basic calulations,			**10**	
	Studio 2	**Lecture-2**					
9	**WEEK 09**		**Topic of Study**	Lecture & discussion Through PPt Presentation: Characteristics of Fire resisting materials Causes of fire and Effect s of fire General Requirements of Fire Resisting building as per IS and NBC Maximum Travel Distance STUDENTS:Note taking,Questions & Discussions Based on Lecture	ELECTRICAL LAYOUT OF A SIMPLE UNIT A3 SHEET electrical layout for residence, small work shop, show room, school building, etc.		Develop basic understanding of fire and Fixtures and accessories used in eleoctrical installation – Preparing an electrical layout for part of design project, with load calculations.
	Studio 1	**Lecture-1**	introductiopn Triangle of Fire and Fire safety standards and requirements for various types of Buildings.			**10**	
	Studio 2	**Lecture-2**					
10	**WEEK 10**		**Test Week**	NA	NA		
	Studio 1	**Lecture-1**	NA				
	Studio 2	**Lecture-2**					
11	**WEEK 11**		**Topic of Study**	Lecture & discussion Through PPt Presentation: Fire Fighting Installations for Horizontal Exit, Roof Exit / Fire Lifts, External Stairs Special features required for physically handicapped and elderly in building types STUDENTS:Note taking,Questions & Discussions Based on Lecture	STUDENTS :need to Prepare notes		students understand the methods to integrate fire safty norms Causes of fire in buildings – Safety regulations – NBC – Planning considerations in buildings staircases and lift
	Studio 1	**Lecture-1**	(Matrials,Fire Escape,Lifts,NBC Rules for fire) Staircases Distances and widths as per NBC, (unit-3)				
	Studio 2	**Lecture-2**					
12	**WEEK 12**		**Topic of Study**	Lecture & discussion Through PPt Presentation: Fire alarm system, snorkel ladder STUDENTS:Note taking,Questions & Discussions Based on Lecture	**(ASSIGNMENT 3) HAND WRITTEN A4 sheet Assignment**		sttudens need to know about Modern fire fighting systems in multi-storied buildings.
	Studio 1	**Lecture-1**	Fire alarm system and components, Hydrant System and Components, Pump house and location.			**10**	
	Studio 2	**Lecture-2**					
13	**WEEK 13**		**Topic of Study**	Lecture & discussion Through PPt Presentation: Hydrant systems / installations refuge areas and ramps. Fire lighting pump and water storage – Dry and wet risers – Automatic sprinklers	STUDENTS :need to Prepare notes		Analyse a Fire fighting layout for a commercial building, Reflected ceiling plan of smoke detectors / sprinklers, etc. for
	Studio 1	**Lecture-1**	Wet riser system, down comer system and Sprinkler Systems for fire Fighting services.				

	Studio 2	**Lecture-2**		STUDENTS:Note taking,Questions & Discussions Based on Lecture			a multi-storeyed building.
14	**WEEK 14**	**Topic of Study**		Lecture & discussion Through PPt Presentation: Students are able to produce basic fire fighting layouts for various building typology STUDENTS:Note taking,Questions & Discussions Based on Lecture	**(ASSIGNMENT 4) HAND WRITTEN A4 sheet Assignment**		To develop an understanding of the advanced building services such as Fire Protection and Security and their application in the design proposals of buildings of slight complex nature such as multistoried.
	Studio 1	**Lecture-1**	Fire Security System, Access Control System, Intruder detection and CCTV systems.			**10**	
	Studio 2	**Lecture-2**					
15	**WEEK 15**	**Topic of Study**		To develop an understanding of Types of Lifts. Working of lifts with details of lift section describing various parts of lifts.	STUDENTS :need to Prepare notes		To develop an understanding of various types on Escalators. Fundamentals of escalators, Function and working of Escalators.
	Studio 1	**Lecture-1**	Mechanical Transportation Intro&types Details Lifts,Escalator and moving walkways SESSION-01				
	Studio 2	**Lecture-2**					
16	**WEEK 16**	**Topic of Study**		Lecture & discussion Through PPt Presentation: Fundamentals of Escalator,,planing aspect of Escalator and moving walkways STUDENTS:Note taking,Questions & Discussions Based on Lecture	**(ASSIGNMENT 5) HAND WRITTEN A4 sheet Assignment**		To develop an understanding of various types on Escalators. Fundamentals of escalators, Function and working of Escalators.
	Studio 1	**Lecture-1**	Mechanical Transportation Intro&types Details Lifts,Escalator and moving walkways SESSION-02				
	Studio 2	**Lecture-2**					

Suggested Readings:-

1. Anwani, ML (2002) Basic Electric Engineering. Dhanpat Rai and Co. (P) Ltd, Delhi.
2. Rao, RB (2002) Electricity for Architects, Consultants, Builders. 162/1Avvai Shanmugam Salai, Chennai.
3. Jensen, R (ed.) (1975) Fire Protection for the Design Professional. Cahners Books, USA.
4. Industrial Fire Hazard Hand Book.
5. BIS Codes.

No.of Teaching Weeks: 16
Contact Hours: per week : L : 0 S: 10
Contact Hours: per sem : L : 0 S: 160
Credit: 10
Total Marks:100 (E=50 I=50)

Course Title: Architectural Design VI
Course Code: AP-302
Semester VI
Course Coordinator : Mohd Shoeb Alam
StudioTeam: Mohd Shoeb Alam,Sheily Shrivastav,Jyoti

Objectives:

To design Spiritual Retreat with the following objectives:
DESIGN PROBLEM
Introduction: Pune, Maharashtra
Pune, a city in Maharashtra, is known as the “cultural capital” of the state. Because of numerous educational institutes, it is also called “Oxford of the east,” which attracted many IT companies to set up their offices. The city boasts of one of the largest IT parks in Asia, named “Hinjewadi”, that houses multiple global technology companies. The city's history dates back to the 16th century under the rule of Marathas and is home to several magnificent architectural landmarks like Shaniwar Wada, Aga Khan Palace, Lal Mahal etc.
Taj, 5 Star Hotel, Pune
To design a multi-building, multi-functional complex with specific standards for a high – end hospitality building.
.1. To design a multi-building, multi-functional complex with specific standards for a high – end hospitality building.
2.To design functional and efficient internal layouts for various spaces in hospitality buildings.
3.To understand and apply the components and principles of site planning.
4. To explore ecofriendly and low impact materials and construction techniques and apply them imbibing luxury in a state of the art 5 -star hotel.
5.To integrate building services and structural complexity arising from various spans at different levels in the same building.

Pedagogy:

Conducting site studies, case studies and studies of existing literature on HOTEL .
Regular lectures, open forum discussions and presentations on relevant topics to be conducted as scheduled. A series of literature reviews, case studies, site visits are incorporated in the schedule for inculcating the systematic approach for design program formulation.
• Introduction:Brief concept of design
• Site analysis
• Case Studies (Live and Virtual)
• Bye laws/ local norms
• Design Concept
• Site zoning/ bubble diagram and initial sketches
Movement plan of patients, staff and visitors
• Design Development
• Site layout (TBD)
Details of three any desired department .
• Pre- final with block model
• Final design with model and views.
Large scale models and 3D visualizations are to be extensively used for the purpose of presentations. Furthermore, seminars, panel discussions and pin-up juries are to be given.
1.A study tour to Mumbai and Pune is organised for students to experience the culture of the place and understand the context of the proposed site for the project.
2. Peer group feedback system will be adopted for all design submissions through pin-board display, group discussions and audio-visual presentations.

Expected Outcomes:

1.Site Planning: Principles of site planning in a luxury hospitality project
2.Services: Integration of various services like HVAC, Lighting, Water etc sustainably for a high-end hospitality building.
3. Design Programming: Developing a design and area program for various functionally efficient spaces based on adjacency, capacity, standards, and space requirements.

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED OUTCOME
1	**WEEK 01**	**Predesign Stage**		Group alotment based on topics decided for Literature Review. Literature review search	None		An outline of the information that needs to be provided as also learning the best way to present the information so collected
	Studio 1	**Lecture-1**	i) Introduction to the design program- Sheily Shristav ii) Literature review – Sheily, Jyoti, Vidushi, Garima				
	Studio 2	**Lecture-2**	Lecture on Taj, 5 Star Hotel, Pune design parameters and Area program ,Site Analysis, Brief for standards and byelaws. Tour report				
2	**WEEK 02**	**Predesign Stage**		Review of information collected by all the student groups for Literature Review. Next Studio all submissions on literature review to be evaluated.	None		Discussion of document by each groups with one topics each group, all relevant information regarding development regulations, different standards and case studies of individual alloted spaces.
	Studio 1	**Lecture-1**	Site study & analysis Presentaion after trip.				
	Studio 2	**Lecture-2**	Case study . Literature study:Literature Study Students in groups are required to study 2 HOTEL projects (1 virtual & 1 live project) each.				
3	**WEEK 03**	**Predesign Stage**		Presentation by students : all groups with one topics each group, all relevant information regarding development regulations, different standards and case studies of individual alloted spaces.	Literature Review and Case Studies		Submission of document by each groups with one Case Studies- one Indian and one International
	Studio 1	**Lecture-1**					
	Studio 2	**Lecture-2**	Lecture: Site Planning (shoeb)			5	
4	**WEEK 04**	**Predesign Stage**		Discussion on Data Collection: Case Study	Case study		Report and presentation on case study
	Studio 1	**Lecture-1**					
	Studio 2	**Lecture-2**	Lecture: User interface(as regards spatial configuration responding to various types of users)			5	
5	**WEEK 05**	**Site Plan Concept**		Discussion on layout plan and concepts prepared by each student			during studio hrs Learning about varous aspects of site planning and concept development
	Studio 1	**Lecture-1**					
	Studio 2	**Lecture-2**	Lecture: types of Rooms and Facilities at 5 star hotel .shoeb			Grade	
6	**WEEK 06**			Discussion on submission of site plan and concepts prepared by groups	Zoning & Design Concept		Depostition of various buildings/functional components within the site will be shown. A
	Studio 1	**Lecture-1**					

	Studio 2	**Lecture-2**	Lecture:b. Rooms c. services. Shoeb			10	within the site will be shown. A block model showing the volumetric distribution on the site.
7	**WEEK 07**	**Design Development-1**		Concept Submission of Individually Selected Buildings (2 buildings selected individually)	DD - 1		A-1 Sheets with single line internal plans of various functional spaces on 1:100 scale
	Studio 1	**Lecture-1**					
	Studio 2	**Lecture-2**	Lecture: admin shoeb			15	
8	**WEEK 08**			Discussion on DD1 of individual building plans			Revised internal building plans of various functional spaces on 1: 100 scale. Openings, levels etc, included in drawings
	Studio 1	**Lecture-1**	Discussion based on students' work and give crits on boards with suggetions				
	Studio 2	**Lecture-2**	Lecture: Site services & Landscaping - Garima			Grade	
9	**WEEK 09**	**Design Development-2**		Discussion on DD2 submissions of individual building plans layout-emergency area	DD-2		All Floor Plans Scale - 1:100 Building Sections – 2 No.s Scale- 1:100 Building Elevations _ 2 No.s Scale- 1:100 Architectural Details- Suitable scale (including sustainability measures) Block Model - Scale – 1:100
	Studio 1	**Lecture-1**	Discussion based on students' work and give crits on boards with suggetions				
	Studio 2	**Lecture-2**	Discussion based on students' work and give crits on boards with suggetions			15	
10	**WEEK 10**			Discussion on DD2 submissions of individual building plans			
	Studio 1	**Lecture-1**	Discussion based on students' work and give crits on boards with suggetions				
	Studio 2	**Lecture-2**	Discussion based on students' work and give crits on boards with suggetions			Grade	
11	**WEEK 11**	**Design Development-3**		Discussion on DD3 submissions of individual building plans all floors and elevation sections	DD-3		All Floor Plans Scale - 1:100 Building Sections – 2 No.s Scale- 1:100 Building Elevations _ 2 No.s Scale- 1:100 Architectural Details- Suitable scale (including sustainability measures)
	Studio 1	**Lecture-1**	Discussion based on students' work and give crits on boards with suggetions				
	Studio 2	**Lecture-2**	Discussion based on students' work and give crits on boards with suggetions			15	
12	**WEEK 12**	**Test Week**		**TEST WEEK**			NA
	Studio 1	**Lecture-1**	NA				
	Studio 2	**Lecture-2**	NA				
13	**WEEK 13**	**Students' Activity**		Discussion on improvements on DD3 submissions			
	Studio 1	**Lecture-1**	NA				
	Studio 2	**Lecture-2**	**HOLIDAY**				
14	**WEEK 14**	**Review**		**PRE - FINAL SUBMISSION**	Prefinal		Project brief along with area requirements Design concept Case studies and design inferences Site analysis with program and zoning
	Studio 1	**Lecture-1**	Discussion based on students' work and give crits on boards with suggetions				
	Studio 2	**Lecture-2**				15	
15	**WEEK 15**	**Review**			None		
	Studio 1	**Lecture-1**	None				
	Studio 2	**Lecture-2**	None				
16	**WEEK 16**	**Final Submission**		**FINAL SUBMISSION floor s plans+any two detailed dept+elevations+sections+3d views+concept sheets**	Final Submission		All drawings and Models+tour final report
	Studio 1	**Lecture-1**	None				
	Studio 2	**Lecture-2**	None			20	

Suggested Readings:-

1. Neufert, P., "Architects" Data", 3rd Ed., Blackwell Science, 2000

2 Kevin Lynch, Site Planning

3. HRACC GUIDELINES Hotel & Restaurant Approval & Classification Committee (HRACC)

4. Building Bye Laws-Pune

5. National Building Codes & National Fire Protection Association (NFPA) Standards

6. Development Controls,Building Codes,Government of India, Ministry of Tourism(H & R Division)

No.of Teaching Weeks: 16
Contact Hours: per week : L : 2 T: 0
Contact Hours: per sem : L :32 T:0
Credit: 02
Total Marks:100 (E=75 I=25)

Course Title: HVAC & SECURITY SYSTEMS ACCESS CONTROL
Course Code: AP-326
Semester VI
Subject Coordinator :Mohd.Shoeb Alam
Studio Team:Mohd.Shoeb Alam

Objectives:

UNIT-1,UNIT-2 & UNIT-3 (HVAC-systems)
To Learn from Introduction and Details of Air Conditioning Systems
To understand the impotance of HVAC system through design studio
explore various methids and Application, Brief introduction to air conditioning system design in hotels, Hospital and commercial buildings. Integration of building design strategies with HVAC
Ventilation Systems, Basement ventilation, Car park ventilation, Toilet/pantry ventilation, Introduction to air-cooling system.
To study Indoor Air Quality,Importance of Fresh Air,Sick Building syndrome.
UNIT-4 BMS,COMMUNICATION & MECHANICAL TRANSPORT
To develop the understanding Building Automation Systems and their application in various builidngs.
To know about the energy management functions types,installations and applications.
To enlighten the importance and Use of suitable software's like Ecotect and Climatic Consultant in design development
To provide practical exposure through live studies and working drawings.
To understand the importance Mehanical Transportation (LIFT,ESCALATOR AND MOVING WALKS)in various buildings and its systems.

Pedagogy:

Introduction:Brief intoducation of Topics.
Lecture + Presentation on various stage and topics
Conducting site studies, case studies and self directive Research.online videos and lectures

Expected Outcomes:

To understand the limitations and possibilities of the building design to accommodate the engineering
To learn and etablish understanding on HVAC sytem and their application in design studio work.
To Learn various codes for applications in design work.
To learn about space allocations for required services.
Emphasise buildings as a total expression of integrated systems & services;
Emphasise the planning, location of equipment, accessibility and the occupied area for the particular servicewithin the building;
Students gain an appreciation of these services through their own design interventions/solutions.
They learn about actual areas and volume contained by building services.

S NO.	WEEK/DATE	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED OUTCOME	REMARKS
1	**WEEK 01**	**Sketchfile/Research**						
	Studio 1	**Lecture-1**	Lecture on Introduction of Course Outline.Introductory class, course delivery plan, prerequisits of the subject and evaluation system would be discussed.	Lecture + PPT PRESENTATION			Students understand the entire course.	

	Studio 2	**Lecture-2**						
2	**WEEK 02**	**Sketchfile/Research**						
	Studio 1	**Lecture-1**	Introduction to psychrometric chart and Air Conditioning Refregation cycle & Principles of Air conditioning:	Lecture + PPT PRESENTATION conducted on psychrometric chart and Air Conditioning Refregation cycle & Principles of Air conditioning:			Students understand the basic concept of acs.	
	Studio 2	**Lecture-2**						
3	**WEEK 03**	**Sketchfile/Research**						
	Studio 1	**Lecture-1**	Principles of Heat Load calulation basic	Lecture + PPT PRESENTATION on Heat load calulations factos, methods and conditions	**HAND WRITTEN A4 SHEET ASSIGNMENT**	10	Students need to know the menthods of heat load calulations.	
	Studio 2	**Lecture-2**						
4	**WEEK 04**	**Sketchfile/Research**				15		
	Studio 1	**Lecture-1**	Centralized and Decentralized Air conditioning systems	Lecture + PPT PRESENTATION on various types of Centralized and Decentralized Air conditioning systems.			Students learnt about plant room,and large TR requirements.	
	Studio 2	**Lecture-2**						
5	**WEEK 05**	**Topic of Study**						
	Studio 1	**Lecture-1**	non Ducted system and ducted system	Lecture + PPT PRESENTATION on ducted and non ducted syetms of acs.			Students learnt about ducted systems.	
	Studio 2	**Lecture-2**						
6	**WEEK 06**	**Topic of Study**					Students can create some sketches to know about various components of acs.	

	Studio 1	**Lecture-1**	Introduction to Types of Condenser,Cooling Tower,AHU, FCUs,Hot water Generator,Chilled/Condensed water Pipe Line systems.	Lecture + PPT PRESENTATION on other important acs systems and calulations.			components of acs.	
	Studio 2	**Lecture-2**						
7	**WEEK 07**	**Topic of Study**						
	Studio 1	**Lecture-1**	Direct Expansion &Chilled water system,Heat Load estimation & calculation	Lecture + PPT PRESENTATION on other important acs systems and calulations.	**HAND WRITTEN A4 SHEET ASSIGNMENT**	10	Students understand the basic concept of acs.	
	Studio 2	**Lecture-2**						
8	**WEEK 08**	**Topic of Study**						
	Studio 1	**Lecture-1**	Introduction to variable air conditioning systems with brief introduction of design menthods of ac for hospital,hotel and commercial.	Lecture + PPT PRESENTATION on how to design acs for hotel and hospitals through some live examples.			Students understand the basic concept of acs.	
	Studio 2	**Lecture-2**						
9	**WEEK 09**	**Topic of Study**						
	Studio 1	**Lecture-1**	**MINOR TEST WEEK**					
	Studio 2	**Lecture-2**						
10	**WEEK 10**	**Topic of Study**						
	Studio 1	**Lecture-1**	Air conditioning:Basic layout Formation:Air Conditioning: Analysis and Design	Lecture + PPT PRESENTATION on layouts designs methods	**HAND WRITTEN A4 SHEET ASSIGNMENT**	10	Students can analye simple menthods for acs design requirements for various buildings.	
	Studio 2	**Lecture-2**						

11	**WEEK 11**	**Prefinal**		Lecture + PPT PRESENTATION on air quality factors and tyes of air changes required for different types of buildings.			Students can analye the importance of fresh air and ventilation and learn various menthods of ventilation.	
	Studio 1	**Lecture-1**	Air quality for different areas & Air changes:building types natural and Mechanical ventilation in buildings					
	Studio 2	**Lecture-2**						
12	**WEEK 12**	**Review**		Lecture + PPT PRESENTATION on vantilations systems and methods	**HAND WRITTEN A4 SHEET ASSIGNMENT**		Students can analye the importance of fresh air and ventilation and learn various menthods of ventilation.	
	Studio 1	**Lecture-1**	ventilation system of basement parking,Toiltes and air cooling system.			10		
	Studio 2	**Lecture-2**						
13	**WEEK 13**	**Test Week**		Lecture + PPT PRESENTATION on fresh air ,indoor air quality and some other ways of dealing with fresh air systems.			Students can analye the importance of fresh air and ventilation and learn various menthods of ventilation.	
	Studio 1	**Lecture-1**	Fresh Air, Sick building syndrome, Indoor air quality and importance of fresh air.					
	Studio 2	**Lecture-2**						
14	**WEEK 14**	**Review**		Lecture + PPT PRESENTATION on BMS.	**HAND WRITTEN A4 SHEET ASSIGNMENT**		Students can understand about building automations system on various heads.	
	Studio 1	**Lecture-1**	BMS (Intelligent buildings, sensors, controller,Energy management system,Building Automation system)-module-01			10		
	Studio 2	**Lecture-2**						
15	**WEEK 15**	**Final Submission**		Lecture + PPT PRESENTATION on BMS.	**HAND WRITTEN A4 SHEET ASSIGNMENT**		Students can understand about building automations system on various heads.	
	Studio 1	**Lecture-1**	BMS (Intelligent buildings, sensors, controller,Energy management system,Building Automation system)-module-02			10		

	Studio 2	**Lecture-2**	Types of sensors & their application & future trends					
16	**WEEK 16**	**Final Submission**						
	Studio 1	**Lecture-1**	Revision, discussing university question papers					
	Studio 2	**Lecture-2**						

Suggested Readings:-

1. Chadderton, DV (2000) Building Services Engineering. E & FN Spon, London.
2. McQuiston FC, Parker JD & Jeffrey DS (2005) Heating, Ventilating, and Air Conditioning: Analysis and Design, Wiley.

YEAR: 4th YEAR	SEMSTER: 8th SEM

NAME OF THE SUBJECT: ARCHITECTURE STUDIO – URBAN DESIGN

AIM :

Re-development of existing precincts at city New Delhi concerning the urbanism and cater to the issue of urban interaction and densification.

OBJECTIVES :

- Develop Strategic frameworks of development to achieve the objectives of increasing density.
- Providing a newly built stock.
- Creating Environmentally sustainable, self-financing development type.
- The desire to maximize the built-up area and use the location to the utmost.
- Integrating ground realities of a site (in terms of its ecological-morphological context), the benefits of city core densification, and economic opportunities through a viable real estate model.

LEARNING OUTCOME:

Understanding of the physical, ecological, economic, technological and social structures and networks at urban context

PEDAGOGICAL INTERVENTION:

1) Study tours to learn basic of urban design and principles.
2) Analytical study of the neighbourhood level at the site
3) Lectures from urban designers' various aspect of strategies at Master Plan level.

INNOVATIVE APPROACH:

Thinking in terms of NEW URBANISM as an integration to the ola urban design theories.

INTEGRATION OF TECHNOLOGY:

Usage and help of digital media for figures, time-lapse videos.

SUGGESTED READINGS:

1) "The Uses of City Neighborhoods" in Jacobs, Jane. *The Death and Life of Great American Cities*. Vintage, 2016. ISBN: 9780679741954.

2) City Image and Its Elements" in Lynch, Kevin. *The Image of the City*. Vol. 11. MIT Press, 1960. ISBN: 9780262120043.

3) City and Modernism", "Notes on Urban Space", and "Space, Territory, and Perception" in Maki, Fumihiko, Mark Mulligan, and Eduard F. Sekler. *Nurturing Dreams: Collected Essays on Architecture and the City*. MIT Press, 2012. ISBN: 9780262135009.

TITLE OF THE PROJECT: URBAN DESIGN STUDIO

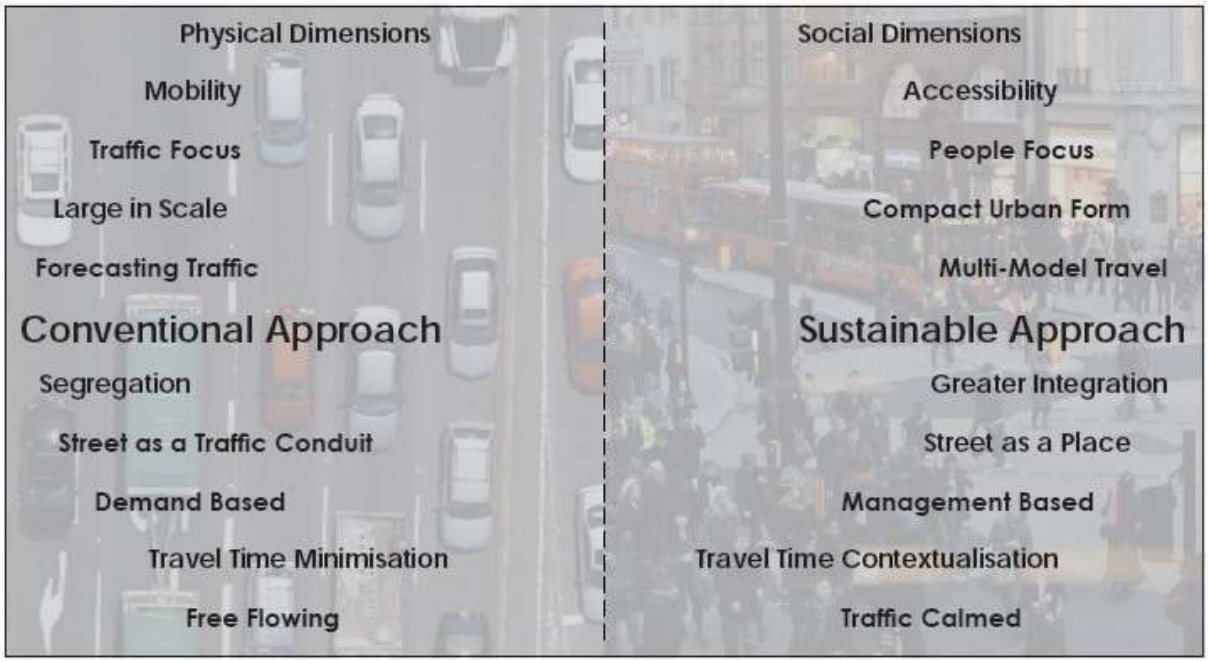
DETAILED BRIEF:

Documentation Exercise **15% weightage**

Street design within urban areas (i.e. cities, towns and villages). It sets out an integrated design approach. What this means is that the design must be:

a) Influenced by the type of place in which the street is located, and

b) Balance the needs of all users.



The students need to analyse the streets from more conventional approaches concerned with the movement of traffic to more sustainable approaches concerned with multi-modal movement and streets as places.

They need to document in Group of 4 for 2 weeks. (One week on Trip)
A2 sheets composed your way:

PUSHKAR:
Study of nodes, active edges, Landmark and other principles of Urban Design. Other Infrastructure urban issues observed at Pushkar. Architectural built study.
Hand-drawn sketches and photomontages of Keven Lynch scheme observed at Pushkar

JAIPUR- Vidyadhar Nagar

1) 1) Historical Evolution of Street - before and after. Analysis of Urban issues before and after and how the street infrastructure helped and its impact with Street sections with new proposal.

2) Understanding character of the place. Activity pattern and it's mapping in terms of vendors, street activities (both formal and informal).

3) Movement pattern mapping and analysis. Footfall of number of people at different peak hours of the day, No. Of different vehicles and services at different peak hours of the day.

4) Junction and street section with the building analysis. study of development policies and guidelines that were implemented for the proposal.

PROJECT SITE DETAILS AND AREA PROGRAM DETAILS

Redevelopment - Strategy for Revamping Urban Context

85% weightage

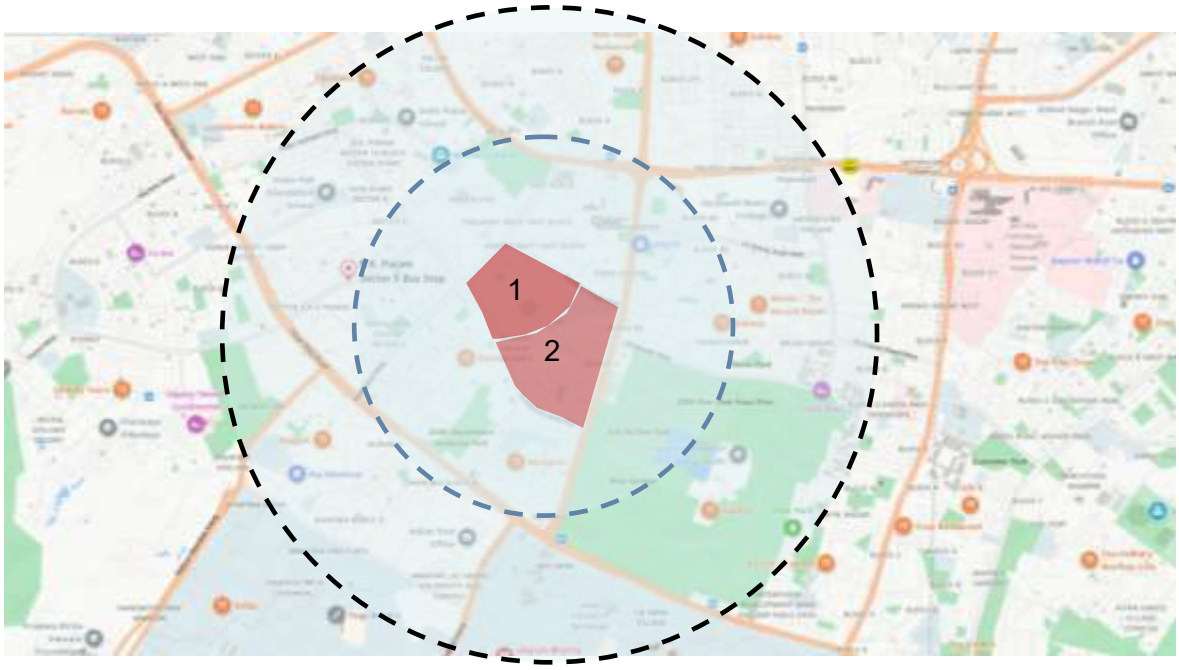
For a long time now, professional opinion regarding the structure and density of Delhi has revolved around the imbalanced density between the city core and periphery. With mounting pressures on land as a resource, urban sprawl stretching the limits of the city and consequent problems with urban transportation and environmental degradation the need to densify existing precincts of the city becomes evident. However, several issues regarding densification arise immediately. The prime issues relate to the feasibility of re-development of existing precincts concerning the environment and urbanism.

The chosen site allows us to search for an appropriate urbanism that stems from an understanding of the physical, ecological, economic, technological and social structures and networks.

- Develop Strategic frameworks of development to achieve the objectives of increasing density.
- Providing a newly built stock.
- Creating Environmentally sustainable, self-financing development type.
- The desire to maximize the built-up area and use the location to the utmost.
- Integrating ground realities of a site (in terms of its ecological-morphological context), the benefits of city core densification, and economic opportunities through a viable real estate model.

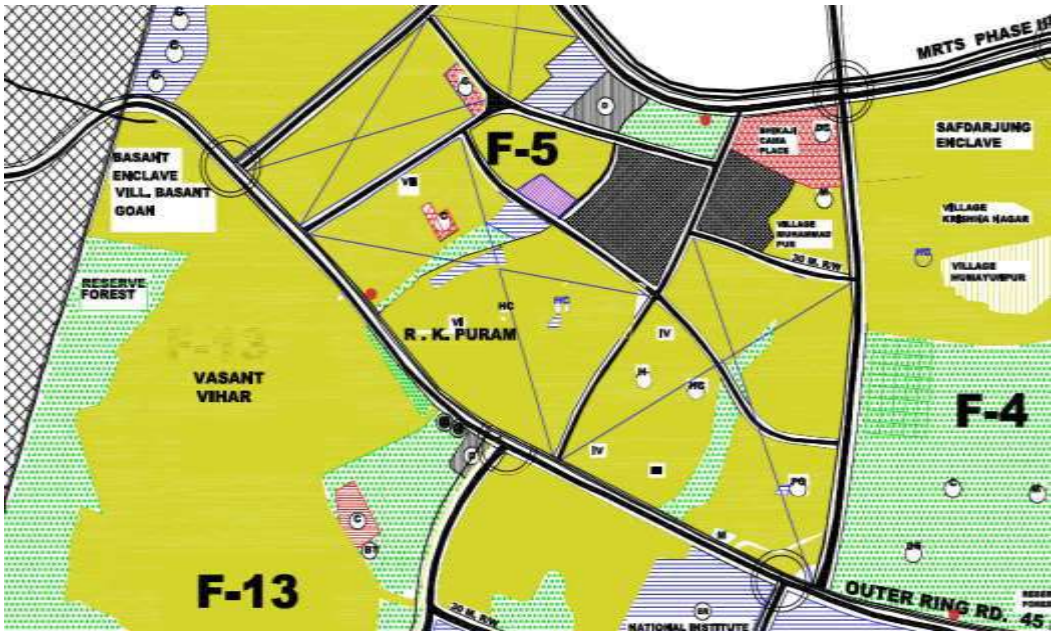
Details of Development Proposal

Site 1: 21 ha
Site 2: 27 ha
Zone: F5
Location: RK PURAM



Black circle: 1km Radius: Urban Context

Blue circle: 0.5km Radius: Immediate Context



SITE 1: **Total Area: 21 HA**
SITE 2: **Total Area: 20.8 HA**

25 % of green

4.5 sqm per person of greens

TOTAL No. of People: 11100 persons
Dwelling Units: 2500

Sno.	Description	Area
1	Total site area available for development as part of urban regeneration scheme	**21 HA**
2	20% Green	**5,25,000 sqm**
3	Land required for Housing	**3 HA**
4	Roads and Pavements @20%	**4 HA**
5	Social Infrastructure	**3 HA**
4	Land Available for Feature Land Use @ 4 FAR	**5 HA**
5	Gross FAR for 21HA	**2.5 FAR GROSS**
6	GROSS Residential Density @21HA @2500DU	**125 DU /HA**

POLICY FOR DYNAMIC PARKING NORMS FOR DELHI

Metro deduction: If a property is located within a walkable distance from a Metro Station, the parking requirement within that property shall be reduced by a prescribed percentage viz. for properties located upto 500 m from a metro station, the deduction in parking within the plot shall be 30 percent of the parking norm and for properties located more than 500 m and less than 800 m from a metro station, the deduction in parking within the plot shall be 15 percent of the parking norm.

C. **PARKING NORMS :**

S. No.	Clause as per MPD - 2021	Use Zones	PARKING NORMS	
			Existing Provisions (MPD 2021)	Proposed Amendments/Modifications
1.	4.4.3 (b)	Residential Plot – Group Housing	• Parking @ 2.0 ECS / 100 m2 of Built-up area • Parking @ 0.5 ECS / 100 m2 Built-up area for EWS/ Service Personnel housing	• EWS / Service Personnel Housing DU size: less than 40 sqm- Parking @ 0.5 ECS per DU* • DU size: 40sqm to 100 sqm : Parking @1.0 ECS per DU* • DU Size : 100 sqm to 200 sqm: Parking @2.0 ECS per DU* • DU Size : above 200 sqm: Parking @ 2.0 ECS per DU* and additional 1.0 ECS per 100 sqm or part thereof. ** DU size : Plinth Area* **In case of Government Housing Projects, the parking norms shall be as per the applicable norms adopted in case of GPRA Colonies.**
2.	4.4.3 (e)	Hostel / Guest House / Lodging & Boarding House / Dharamshala	Parking @ 2.0 ECS / 100 m^2 of Built-up area	Parking @ 0.5 ECS/100m^2 of Built-up area + Metro Deduction
3.	4.4.3 (f)	Night Shelter	Parking NIL, for plots measuring less than 500m2 of built-up area Parking @ 2.0 ECS for plots measuring more than 500m2 of built-up area	No mandatory parking is to be provided
4.	4.4.3 (h)	Studio Apartments	Parking @ 2.0 ECS / 100m2 of Built-up area	Parking @ 1.0 ECS/100m^2 of Built-up area

			Basement, if constructed, and used only for parking, utili- ties and services shall not be counted towards FAR.	+ Metro Deduction
5.	4.4.3 (i)	State Bhawans/ State Guest houses	Parking @ 2.0 ECS / 100m² of Built-up area	Parking @ 1.0 ECS/100m2 of Built-up area
6.	Table 5.4	Community Centre / Non-hierarchical Commercial Centre	Parking @ 3.0 ECS / 100 m² of built-up area	Parking @ 3.0 ECS / 100m² of built-up area + Metro Deduction + MLCP Deduction
7.	Table 5.4	District Centre/ Sub-Central Business District / Sub-City Level Commercial areas	Parking @ 3.0 ECS / 100 m² of built-up area	Parking @ 3.0 ECS / 100 m² of built-up area + Metro Deduction + MLCP Deduction
8.	Table 5.4	Commercial Plot: Retail & Commerce Metropolitan City Centre i.e. Connaught Place & its Extension	Parking @ 3.0 ECS / 100 m² of built-up area	Parking @ 3.0 ECS / 100m² of built-up area + Metro Deduction + MLCP Deduction
9.	Table 5.4	Commercial Complex at Fire Brigade Lane and Janpath Lane	Parking @ 3.0 ECS / 100 m² of built-up area	Parking @ 3.0 ECS / 100m² of built-up area + Metro Deduction + MLCP Deduction
10.	Table 5.4	Hotels	Parking @ 3.0 ECS / 100 m² of built-up area	Parking @ 2.0 ECS / 100m2 of built-up area + Metro Deduction
11.	Table 5.4	Service Apartments	Parking @ 2.0 ECS / 100 m² of built-up area	Parking @ 2.0 ECS / 100m² of built-up area + Metro Deduction

				+ MLCP Deduction
32.	**Table 13.17**	**Science Centre**	Parking @ 2.0 ECS / 100 m² of built-up area	Parking @ 2.0 ECS / 100 m² of built-up area + Metro Deduction + MLCP Deduction
33.	**Table 13.17**	**International Convention Centre**	Parking @ 2.0 ECS / 100 m² of built-up area	Parking @ 2.0 ECS / 100 m² of built-up area + Metro Deduction + MLCP Deduction
34.	**Table 13.17**	**Socio-Cultural Centre**	Parking @ 2.0 ECS / 100 m² of built-up area	Parking @ 2.0 ECS / 100 m² of built-up area + Metro Deduction + MLCP Deduction
35.	**Table 8.2**	**District Court, Integrated Office Complex, Government Offices (Central / State Government / Local Bodies)**	Parking @ 2.0 ECS / 100 m² of built-up area	**a)District Court** - Parking @ 2.0 ECS / 100 m² of built-up area + Metro Deduction + MLCP Deduction **b)For Integrated Office Complex, Government offices (Central / State Government / Local Bodies)** - Parking @ 1.0 ECS / 100 m² of built-up area + Metro Deduction + MLCP Deduction

2. The text of MPD-2021 indicating the proposed modifications shall be available for inspection at the Office of the Dy. Director, Master Plan Section, 6th Floor, Vikas Minar, IP Estate, New Delhi-110002, on all working days within the period referred above. The text

STAGE WISE LIST OF DELIVARABLES WITH TIMELINE:

The working method of the Studio: 12th of February

The class has been divided into **7 groups of 4-5 students** each. There are two precincts (1 and 2) identified for intervention.
The 13-week studio has been divided into 4 parts.

Part 1-
Study and documentation of the existing structure of the District Centre/s through its parts. This shall be done by all groups. All the data shall be collated through maps, drawings, photos, and models. It shall identify the portions to be retained and development strategies with broad zoning of activities.
(3 Weeks) 50 marks

Part 2-
New development strategy - Vision Statement. Proposal/ planning of enhanced infrastructure that shall correspond to vision. It shall conclude in final infrastructure planning with road networks and open spaces/ parks/ plazas/podiums etc. in line with development strategies. Vehicular and pedestrian movements and identification of Parking facilities, zoning and preliminary built and open spaces configuration.
(2 weeks) 50 marks

Part 3 – Final Formal design strategy expressed through two and three-dimensional planning/ zoning. This shall conclude in a 3D Concept integrated with the surrounding built environment.
(2 weeks) 50 marks

Part 4 – Detail proposal- Integration of open space structure and surrounding building types that are part of the scheme.

4 stages (6 weeks) 50+50+70+100+30(model)

VASTU KALA ACADEMY COLLEGE OF ARCHITECTURE

AP405: Seminar

Fourth Year Architecture (2024-25)

SCHEDULE OF SUBMISSIONS

Sn.No.	Submission stage	Submission Deliverable	Expected Outcome	Mode of submission	Date of submission/ review
Submission 0	Synopsis	Introduction and aim of the 4 topics	Topic Finalization	soft copy to coordinators	**Friday 16th AUG 2024**
Submission 1	Background study: The detailed introduction and background of the topic chosen for Seminar topic	PowerPoint submission and audiovisual presentation of minimum 15-20 slides along with a write-up of 750-1250 words	Compilation of all background information. Formulation of Abstract and keywords	Softcopy/hardcopy to guide as per guide's instruction	**Monday 2nd SEPT 2024**
***Plagiarism check report submission will be mandatory at all stages.**					
Submission 2	Compilation of all background with detail understanding information, formation of aim, objectives and tentative research methodology	Powerpoint submission and audiovisual presentation of minimum 20-25 slides along with a writeup of 1500-2000 words	Compilation of all background information. Formulation of Abstract and keywords Aim ojective scope limitation	Softcopy/hardcopy to guide as per guide's instruction	**Tuesday 17th SEPT 2024**
Submission 3	Detailed research methodology to be deployed for research and summarized background	Powerpoint submission and audiovisual presentation of minimum 20-25 slides along with a writeup of 1500-2000 words	Detailing of the research methodology for both qualitative and quantitative research and deployment of the tools for analysis	Softcopy/hardcopy to guide as per guide's instruction and softcopy to coordinators on rp2021.vaka@gmail.com for record reference	**Tuesday 3rd OCT 2024**
Submission 4	Identification of case studies and tentative path of analysis	Powerpoint submission and audiovisual presentation of minimum 25-30 slides along with a write-up of 2000-2500 words	Detailing of the research methodology for both qualitative and quantitative research and deployment of the tools for analysis along with identiication o case studies	**Submission Softcopy to guide and CC to coordinators on rp2021.vaka@gmail.com and Print out of Report to be submmited on the day of Joint Review to Coordinators.**	**Submission: Wednesday 16th OCT 2024 Joint Review Friday 18th OCT 2024**
***Plagiarism check report submission will be mandatory at all stages.**					
Submission 5	Primary and secondary studies along with surveys required to undertake the research, along with the analysis of data collected in the defined	Powerpoint submission and audiovisual presentation of minimum 25-30 slides along with a write-up of 2000-2500 words	Analysis of all the primary and secondary data collected to undertake the research. Drawing inferences from the research	Softcopy/hardcopy to guide as per guide's instruction	**Tuesday 29th OCT 2024**
Submission 6	Drawing out inference, conclusion, suggestions and recommendations if any	PowerPoint submission and audiovisual presentation of minimum 30-35 slides along with a write-up of 2500-3000 words	Drawing conclusions / recommendations/ guidelines/ suggestions as the topic may be **Final preseantation and reoprt**	**Submission Softcopy to guide and CC to coordinators on rp2021.vaka@gmail.com and Print out of Report to be submmited on the day of Joint Review to Coordinators.**	**Submission: Thrusday 14th NOV 2024 Joint Review Friday 15th NOV 2024**
Submission 7	Final Submission	PowerPoint submission and audiovisual presentation of minimum 30-35 slides along with a write-up of 2500-3000 words	Final preseantation and reoprt	**Submission and Joint Review**	**Monday 25th NOV 2024**

Note1: The students are supposed to be giving audio visual presentation with the help of prepared power point presentation at every stage. The participation of all the group members is compulsory. Guides are expected to mark them individually on the basis of their audio visual skills.

Note1: The students are supposed to be giving audio visual presentation with the help of prepared power point presentation at every stage. The participation of all the group members is compulsory. Guides are expected to mark them individually on the basis of their audio visual skills.

Note 3: The write up needs to be prepared in the form of narrative unlike the Dissertation reports and the write up essentially should not contain titles like aim, objective, methodology, literature review etc. Rather the narrative should be in an essay format in a descriptive format

Note4: Each stage should compile summary of all the literature reviewed and the slides should be prepared for better communication with the guide and the reviewers.

SEMINAR CORDINATOR COORDINATORS	**SHOEB ALAM, AKASH SHARMA**
	ANKITA BAJPAI

No.of Teaching Weeks: 16
Contact Hours: per week : L : 0 S: 3
Contact Hours: per sem : L : 48 S: 0
Credit: 3
Total Marks:100 (E=50 I=50)

Course Title: BUILDING ECONOMICS
Course Code: AP-443
4th YEAR – 2024, Semester VII
Course Coordinator : JYOTI LUTHRA
Studio Team: JYOTI LUTHRA

Objectives:
To understand the economic principles associated with building design
To create awareness among students about economic aspects related construction and real- estate Industry

Pedagogy:
PPT Presentation, short/quick exercises during class to keep students engaged and make learning interesting, Videos, Group/ Team work, Discussions/ Talks/Brainstorming sessions (Lateral thinking). As per syllabus the subject lectures and presentationas are divided into four units - 1. Elementary concepts of Economics 2. Scenario of Construction and Real Estate Industry 3. Economic Performance of Buildings 4. Valuation of Immovable Properties.

Expected Outcomes:
1. Understanding of basic economic terms and economic principles 2. Awareness about real estate and construction industry 3. Knowledge of Valuation of Immovable Properties 4. Basics of cost and financial aspects related to construction projects

S NO.	WEEK/D	LECTURE /DISCUSSION		ACTIVITY	SUBMISSION	MARKS	EXPECTED OUTCOME
1	**WEEK 01**	**Sketchfile/Research**		Discuss: Why do architects need to have knowledge of Building Economics? Basic terms used in Economics (eg. Asset, Liability, Cost, Profit, Resources, Land, Real Estate etc). Lecture with PPT and Class discussion/Interaction. Short exercise in class - Browse few terms online related to economics and try to understand n discuss in class			
	Studio 1	**Lecture-1**	Overview of the subject and brief introduction about course contents.				Overview of the subject and its role/ importance for Architects.
	Studio 2	**Lecture-2**					
2	**WEEK 02**	**Sketchfile/Research**		Lecture with PPT/ Notes and Class discussion/Interaction. Economic concepts explained with simple examples from day to day life activity. Involve/ encourage students to think and share their experiences (if possible relate to economics)	Start Initial work **Continuous Assignment 1** (Individual) - To be developed throughout the course - **Graphical Glossary** of Terms related to economics/ building economics/real estate (**NOT TO BE SUBMITTED at this stage BUT DISCUSS IN**		
	Studio 1	**Lecture-1**	Building Economics, Fundamental economic concepts and analysis, Demand and Supply, Law of demand			**10**	Basic terms of Economics
	Studio 2	**Lecture-2**					
3	**WEEK 03**	**Sketchfile/Research**		Lecture with PPT/ Notes and Class discussion/Interaction. **Introduce Assignment 2 and 3** presentation topics for group work. **Assignment 2** - Select any recent news /article/ cover story/ research paper related to construction/ real estate sector and present in class on submission day. **Assignment 3** - List of topics is provide to students from unit 2 and unit 3 of syllabus, prepare presentation of topic assigned to group and present on given dates.	Assignment 1 (Graphical Glossary)- discussion in class		
	Studio 1	**Lecture-1**	Elasticity of demand, Law of diminishing marginal utility, Law of equi-marginal utility,Market and its typology, equilibrium				understand fundamental concepts of economics
	Studio 2	**Lecture-2**					
4	**WEEK 04**	**Sketchfile/Research**		Lecture with PPT/ Notes and Class discussion/Interaction.	Assignment 1 (Graphical Glossary)- discussion in class		
	Studio 1	**Lecture-1**	Principles of valuation, cost, price and value, purpose of valuation, wealth tax, capital gain etc. Easement, valuation, law relating to properties and buildings				Valuation Principles
	Studio 2	**Lecture-2**					
5	**WEEK 05**	**Topic of Study**		Lecture with PPT/ Notes and Class discussion/Interaction. Introduce **Assignment 4** - Real Estate Valuation - powerpoint submission - Select any one methods of valuation of immovable property and explain in detail (Process, relevance, advantages, disadvantages, report format)	Assignment 1 (Graphical Glossary)- discussion in class		
	Studio 1	**Lecture-1**	methods of valuation, land and building method, rent capitalization method, belting method etc.				Valuation Methods

	Studio 2	**Lecture-2**					
6	**WEEK 06**	**Topic of Study**		Lecture with PPT/ Notes and Class discussion/Interaction. **Assignemt 2 presentation** by students PPT any recent news /article/ cover story/ research paper related to construction/ real estate sector and present in class	Assignment 1 (Graphical Glossary)- discussion in class **SUBMISSION Assignment 2**		
	Studio 1	**Lecture-1**	Presentation by students - Group work (Assignment 2).			**10**	Understand present status of real estate in India, leading players in market -
	Studio 2	**Lecture-2**					
7	**WEEK 07**	**Topic of Study**		Presentation by students - Group work (Assignment 3) - Topic 1 and 2. Topic 1 Cost control, cash flow analysis, cost projections, cost benefit. Topic 2 Demand and supply of real estate in India	**SUBMISSION Assignment 3**		
	Studio 1	**Lecture-1**	Presentation by students - Group work (Assignment 3) - Topic 1 and 2. **Topic 1** Cost control, cash flow analysis, cost projections, cost benefit. **Topic 2** Demand and supply of real estate in India			**20**	Cost, cash flow, cost benefit, demand and supply of real estate in
	Studio 2	**Lecture-2**					
8	**WEEK 08**	**Topic of Study**		Presentation by students - Group work (Assignment 3) - Topic 3 and 4. Topic 3 Methods of construction project financing Topic 4 Land market in cities under the policies of various policies/act			
	Studio 1	**Lecture-1**	Presentation by students - Group work (Assignment 3) - Topic 3 and 4. **Topic 3** Methods of construction project financing **Topic 4** Land market in cities under the policies of various policies/act				construction project financing, Land market in cities
	Studio 2	**Lecture-2**					
9	**WEEK 09**	**Topic of Study**		Presentation by students - Group work (Assignment 3) - Topic 5 and 6. Topic 5 Financing, feasibility, Estate investment and returns, rentals, pre-construction, construction and post construction of project Topic 6 Financial planning of construction project, accounting for risks and uncertainties.			
	Studio 1	**Lecture-1**	Presentation by students - Group work (Assignment 3) - Topic 5 and 6. **Topic 5** Financing, feasibility, Estate investment and returns, rentals, pre-construction, construction and post construction of project **Topic 6**				Financing, feasibility, Estate investment and returns, rentals,
	Studio 2	**Lecture-2**					
10	**WEEK 10**	**Topic of Study**		Presentation by students - Group work (Assignment 3) - Topic 7 and 8. Topic 7 Feasibility analysis, rate of return analysis Topic 8 Ownership titles, regulations, and registration of immovable property			
	Studio 1	**Lecture-1**	Presentation by students - Group work (Assignment 3) - Topic 7 and 8. Topic 7 Feasibility analysis, cost benefit analysis, rate of return analysis Topic 8 Ownership titles, regulations, and registration of				Feasibility analysis, cost benefit analysis, rate of return analysis,
	Studio 2	**Lecture-2**					
11	**WEEK 11**	**Prefinal**		**Assignment 4** - Real Estate Valuation - powerpoint submission - Select any one methods of valuation of immovable property and explain in detail (Process, relevance, advantages, disadvantages, report format)	**SUBMISSION Assignment 4**		
	Studio 1	**Lecture-1**	Presentation and discussion by students - Assignment 4			**10**	Examples - Real Estate Valuation from books
	Studio 2	**Lecture-2**					
12	**WEEK 12**	**Review**		**Assignment 4** - Real Estate Valuation - powerpoint submission - Select any one methods of valuation of immovable property and explain in detail (Process, relevance, advantages, disadvantages, report format)			
	Studio 1	**Lecture-1**	Presentation and discussion by students - Assignment 4				Examples - Real Estate Valuation from books
	Studio 2	**Lecture-2**					
13	**WEEK 13**	**Test Week**		Discussions/ Talks/Brainstorming sessions. Lecture on additional topics.			
	Studio 1	**Lecture-1**	Discussions/ Talks/Brainstorming sessions. Lecture on additional topics.				Students understating of overall subject
	Studio 2	**Lecture-2**					

14	**WEEK 14**	**Review**					
	Studio 1	**Lecture-1**	Discussions/ Talks/Brainstorming sessions. Lecture on additional topics.	Discussions/ Talks/Brainstorming sessions. Lecture on additional topics.			Students understating of overall subject
	Studio 2	**Lecture-2**					
15	**WEEK 15**	**Final Submission**					
	Studio 1	**Lecture-1**	Portfolio - Learning throughout semester. Internal Viva		**Portfolio Submission**		Preparedness for external viva
	Studio 2	**Lecture-2**					
					Internal Marks	**50**	

Suggested Readings:-

1. News Papers: Economic times / Business Standards/ Times Property
2. Valuation of Real Properties by Rangwala
3. Building Economics: Theory and Practice, Authors: Ruegg, Rosalie, Marshall, Harold
4. The ABC of Real Estate in India, Book by Sachin Mittal
5. Design and The Economics of Building", Ralph Morton, David Jaggar, 1995, ISBN 0-419-19200-x

VASTU KALA ACADEMY COLLEGE OF ARCHITECTURE

AP 501: THESIS

Fifth Year Architecture (2024-25)

SCHEDULE OF SUBMISSIONS

Sn.No.	Submission stage	Submission Deliverable	Mode of submission	MARKS	Date of Submission/ Review
STAGE 0	PROJECT BRIEF AND NEED FOR POJECT FINALIZATION	Detail Project brief with background literature study and Background of the Study	**REPORT A4:**10 page Report to be made for this stage of submission	30	**SUBMISSION** Thursday 16th JAN 2025
		Site identification (City/Town/Drawing of site/Building bylaws) example study		10	
		Case study Identification (Min 2 live case and 2 literature case example study	Softcopy upload in shared drive folder and hardcopy to guide as per guide's instruction	10	
STAGE 1	PREDESIGN STAGE	Site details Site plan (ACAD dwg to scale) with context, bye laws, development norms, FAR, ground coverage, height restriction etc., set backs Background	**SHEETS** (Min A2 size sheets or Max. Can be A1/A0/ panel presentation as per your design and story of presentation) **REPORT A4**	40	**SUBMISSION** Friday 31st JAN 2024
		Case study details with analysis Analysis of Case studies (primary and secondary). Comparisons and drawing inferences and deriving design drivers and propositions. Case studies to be presented in comparative matrix		40	
		Report submission with format	Softcopy upload in shared drive folder and hardcopy to guide as per guide's instruction	20	
STAGE 2	CONTEXTUAL STAGE	Site Analysis inclusive of Surrounding Context, Connectivity, Climate, Entry approach	**SHEETS** (Min A2 size sheets or Max. Can be A1/A0/ panel presentation as per your design and story of presentation)	50	**SUBMISSION** Wednesday 12th FEB 2025
		Site Model macro and micro models in scale for context		50	
		Detail Program, Area and FAR calculations (design derivate from case studies and building regulations)	Softcopy upload in shared drive folder and hardcopy to guide as per guide's instruction	50	
		Site zoning (design derivative from site and context)		50	
*** PLEASE KEEP SITE ORIENTATION SAME IN ALL DRAWINGS THROUGH OUT SEMESTER TO AVOID CONFUSION IN IDEA REPRESENTATION.**					
STAGE 3 + REVIEW	CONCEPTUAL STAGE	Thesis Proposition	**SHEETS** (Min A2 size sheets or Max. Can be A1/A0/ panel presentation as per your design and story of presentation) **REPORT A4**	25	**SUBMISSION** Friday 21ST FEB 2025
		Conceptual ideation and philosophy		50	
		Volumetric study of designed built form (digital or physical model with site) block model	Softcopy upload in shared drive folder and hardcopy to guide as per guide's instruction	50	
		Report submission with format		25	
	ALL DETAILS TILL STAGE 3 IN PRESENTBLE FORMATED SHEETS AND REPORT SUBMISSION	SHEETS (MIN A2 SIZE SHEETS OR MAX. CAN BE A1/A0/PANLE PRESENTATION AS PER YOUR DESIGN AND STORY OF PRESENTATION) REPORT A4	HARD COPY OF SHEETS AND REPORT FOR RERVIEW	100	**REVIEW** Friday 28TH FEB 2025
*** PLEASE KEEP ALL SHEETS SIZES AND FORMAT SAME THROUGH OUT SEMESTER FOR BETTER PRESENTATION IN THE FINAL JURY.**					