

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIRST SEMESTER (CBCS)**  
**ARCHITECTURAL DESIGN – I (1S-A-1)**

**Objective-** The primary objective shall be to develop in students the understanding and relevance of human scale and space formation, elements of built form and its role in spatial realms

**1. Anthropometry:**

a. Study of Human dimensions, concept of percentile in Indian standards, space required for various simple activities, circulation spaces.

**2. Form and Space:**

a. Volumes, elements of volumes, enclosure of space, semi-enclosed spaces, defining space by elements, light and shade as contributing factors, color, texture & form, view, visual relationship. Properties of forms and their impact on spatial experience.

**3. Elements of built form:**

a. Basic Elements: Walls, Floors, windows, doors, staircase, façade, etc.

b. Ancillary Elements: Courtyards, balconies, canopy, patio, sitouts, water bodies, pergola, etc.

c. Relevance of all such elements on architectural expression and spatial quality. Small modules of short design projects based on developing the understanding of above mentioned topics.

Small modules of short design projects based on developing the understanding of above mentioned topics.

**Sessional Work- Plates, Sketches and models to understand basic design principles, elements and their expressive qualities**

Creative Exercises of 2d to 3d composition

Exercise related to positive and negative spaces

Product Design.

**TEACHING SCHEDULE (1S-A-1)**

Theory		Marks	Practical	Marks
College Assessment		--	College Assessment	200
University Examination		--	University Examination	--
Duration of University Theory Examination: -- Hours				
Total Credits: T +P = 200				
<b>Reference Text Books</b>				
A	Form Space And Order.		D.K Ching	
B	A Visual Dictionary Of Architecture		D.K Ching	
C	Elements Of Architecture From Form To Place		Pierre Von Meiss	
D	Elements Of Space Making		Yatin Pandya	
<b>Other Text Books of Interest</b>				
E	Time Saver Standards for Building Types		J.H. Calendar	
F	Neuferts 3 <sup>rd</sup> Edition Architects Data		Bousmaha Baiche, Nicholas Walliman	
G	Metric Handbook Planning and Design Data 4th Edition		David Littlefield	
H	Vitruvius Ten books on Architecture		Vitruvius	
I	Toward and new Architecture		Le Corbusier	

### Studio Details

Topic	Unit No.	Refer. Books	No. of Lecturs Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b><u>Anthropometry :</u></b>	I	A, B	3	6.12.22		
a). Study of Human dimensions, concept of percentile in Indian standards, space required for various simple activities, circulation spaces.			3	10.12.22		
			3	13.12.22		
<b><u>Form and Space:</u></b>	II	A,C,D	3	20.12.22		
a. Volumes, elements of volumes, enclosure of space, semi-enclosed spaces, defining space by elements, light and shade as contributing factors, color, texture & form, view, visual relationship. Properties of forms and their impact on spatial experience.			3	24.12.22		
			3	27.12.22		
			3	03.01.23		
<b><u>Elements of built form :</u></b>	III	B	3	10.01.23		
a) Basic Elements: Walls, Floors, windows, doors, staircase, facade, etc.			3	14.01.23		
b) Support Elements: Courtyards, balconies, canopy, patio, Sitouts, water bodies, pergola, etc.			3	17.01.23		
c) Relevance of all such elements on architectural expression and spatial quality			3	24.01.23		
			3	28.01.23		
<b>Pre Mids Submission</b>	<ul style="list-style-type: none"> <li>• Anthropometric Study Sheets Individual &amp; Group work</li> <li>• Single room design individual &amp; group work</li> </ul>					
<b>Mids-I</b>	Form and Space:					
<b>Mids-II</b>	Elements of built form					
<b>Final Submission Date</b>						

Subject Incharge: **Ar.Pratik P. Purkar**

**Ar.Abhilasha Dongre**

### **Objectives:**

- To involve students in study of human dimensions, space required for various simple activities, circulation spaces through individual & group work study
- To involve students in a design project(s) that will involve simple space planning and the understanding of the functional aspects of design.
- To involve students in building case study by choosing appropriate examples to enable them to formulate and concretize their concepts.
- To enable the presentation of concepts through various modes and techniques that will move constantly between 2D representation and 3D modeling.

### **Outcomes:**

- The students shall understand the basic functional aspect of designing simple building type and its relevant spatial organization.
- Students will be able to understand basic & supportive elements and relevance of all such elements in architectural design.

### **Projected Achievements:**

- By the end of course the students will be able to understand the circulation spaces required for various activities through sheet presentations and model.

KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK

DEPARTMENT OF ARCHITECTURE  
B.ARCH. FIRST SEMESTER  
SUBJECT: ALLIED DESIGN STUDIO-I  
(1S-A-2)

TEACHING SCHEDULE (2022-23)

Theory	Marks	Practical / Sessional	Marks
College Assessment	--	College Assessment	100
University Examination	--	University Examination	--
Duration of University Theory Examination: -- Hours.			
Total Credits:			
<b>Reference Text Books</b>			
A	Rendring with Pen and Ink	R.W.Gill	
B	Perspective and Sciography	Shankar Mulik	
C	Rendring in Pen & Ink	Arthur L.Guptil	
D	Architecture in Pen & Ink	John Chen	
<b>Other Text Books of Interest</b>			
1			
2			

### Studio / Lecture Details

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>1A)Important Elements of Arts</b> 1.Horizontal lines 2.Vertical lines 3.Diagonal lines 4.Way/Zigzaglines	I	A,B, C,D	03	21-11-2022		
<b>1B)Important Elements of Arts</b> 1.Dot 2.Line 3.Shape/Plane 4.Form 5.Tonal Value 6.Space 7.Colour 8.Texture	I	A,B, C,D	03	28-11-2022		
<b>2)Grey Scale</b> 1.Pencil Rendring 2.Pen Hatching 3.Cross Hatching 4.Dot Rendring 5.Poster Colour 6. Water Colour	II	A,B, C,D	03	05-12-2022		
<b>3)Flower Rendring</b> A)Pencil Rendring B)Pen Hatching C)Poster Colour D)Water Colour	II	A,B, C,	03	12-12-2022		
<b>4)Colour Wheel:-</b> <ul style="list-style-type: none"> <li>• Primary Colour</li> <li>• Secondary Colour</li> <li>• Intermediate Colour</li> </ul>	III	A,B, C,	03	19-12-2022		
<b>5)Colour Scheme:-</b> 1.Achromatic 2.Monocromatic 3.Triad 4.Analogous 5.Complementary(Opposite) 6.DoubleComplementary 7.Split Complementary 8. Double Split Complementary 9.Cool Colour 10.Warm Colour.	III	A,B, C,D	03	26-12-2022		
<b>6)Introduction to principles of organization / composition :-</b> 1.Repetition 2.Variety 3.Radiation 4.Rhythm 5.Gradation 6. Emphasis & Subordination 7.Proportion 8.Harmony 9.Balance	I	A,B, C,	03	09-01-2023		
<b>MID - I</b>						
<b>7) Pencil Rendring(Building View)</b>	II	A,B,	03	16-01-2023		
<b>8) Pen Hatching(Building View)</b>	-II	A,B,	03	23-01-2023		

9)Dot Rendring (Building View)	II	A,B,	03	30-01-2023		
10)Poster Colour (Building View)	II	A,B,	03	06-02-2023		
11)Water Colour(Building View)	II	A,B,	03	06-02-2023		
Submission			01			
MID - II						

Subject Incharge : Mr. Anant Raole    Mr. KanteshHande    Ms. Mrugakshi Wadichar

**SUBJECT: BUILDING CONSTRUCTION AND MATERIAL – I(1S-A-3)**  
**TEACHING SCHEDULE (2022-23)**

<b>Theory + Practical</b>		150Marks
College Assessment		-----
University Examination		-----
Total Marks		150 Marks
Duration of University Theory Examination: -----		
<b>Reference Text Books</b>		
A	Building Construction	Mackay W. B., Vol. 1 – 4
B	Building Construction	Barry, Vol. 1 – 5, Ching Francis D. K.
C	Construction Technology	Chudley, Vol. 1 – 6
D	Building construction Illustrated	Ching Francis D. K.
<b>Other Books</b>		
E	Engineering Materials	Chaudhary S C Rangwala

**Course Objectives:**

- Introduction to elementary building construction materials and techniques.
- To understand the basic physical and chemical properties of the materials.
- To familiarize students with different masonry techniques.

**Lecture Details**

Topic/ Project	Unit No.	Refer Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Introduction to construction as a subject and its relevance to Architectural Design. Construction and the Logic of stability as its basis, construction principles with respect to structural stability. Support and supported elements, concept of span and span - loading co-relation. Building elements, types and subtypes, basic understanding of elements from foundation to roof vis-à-vis its purpose, function, utility and necessity.	I	C, D	08	23/11/2022 (Wednesday) 25/11/2022 (Friday) 30/11/2022 (Wednesday) 02/12/2022 (Friday)		

<p>Building materials, Categories – Natural, Processed, Manufactured and Designed. Availability, Composition, General know-how with respect to physical, chemical and structural properties; utility and criteria for selection in design and construction of various elements of building. (Market survey and study of catalogues) Manufacturing of clay bricks, Bricks made from other materials and blocks. Building Stones, its quarrying process, preservations, dressing and artificial stone(s). Manufacturing of Lime, Cement - its setting time; importance and need for curing. Aggregate Coursed and fine, sources, grading and selection criteria, various uses and mix. Concrete types (based on materials), Preparation and mix – criteria, its various uses, Manufacturing of Glass, various types, forms, applications.</p> <p><b>Pre Mid Exam I Submission of Folio</b></p>	II	B,C&D	14	<p>07/12/2022 (Wednesday)</p> <p>09/12/2022 (Friday)</p> <p>07/12/2022 (Wednesday)</p> <p>16/12/2022 (Friday)</p> <p>21/12/2022 (Wednesday)</p> <p>23/12/2022 (Friday)</p>		
<p>Basic Structural Systems, Load Bearing, Frame Structure and Composite structure, load transmission, suitability, merits, demerits etc. Introduction and understanding of various Subsystem such as Horizontal, Vertical and Foundation, Sub systems with respect to stability, utility and its application in building design and construction.</p>	III	C, D	10	<p>28/12/2022 (Wednesday)</p> <p>30/12/2022 (Friday)</p> <p>04/01/2022 (Wednesday)</p> <p>06/01/2022 (Friday)</p>		



<p>Masonry, definition and types; purpose / function their role in building design and construction. Standard terminology used for masonry work</p> <p>A complete study of principles and rules of Brick Masonry (up to 2 brick thick) and Piers. A complete study of principles and rules of Stone Masonry and Pillars. Composite masonry and masonry out of various walling blocks</p> <p><b>Pre Mid Exam II Submission of Folio</b></p>	IV	B, C & D	20	<p>11/01/2022 (Wednesday)</p> <p>13/01/2022 (Friday)</p> <p>18/01/2022 (Wednesday)</p> <p>20/01/2022 (Friday)</p> <p>25/01/2022 (Wednesday)</p> <p>27/01/2022 (Friday)</p> <p>01/02/2022 (Wednesday)</p> <p>03/02/2022 (Friday)</p>		
<b>Last date of teaching</b>						
<b>Last date of submission</b>						
<b>Mid Exam I</b>						
<b>Mid Exam II</b>						

**Subject In-charge: Ar. Perna Chahande**

**Ar. Bhavana Raut**



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIRST SEMESTER**  
**SUBJECT: ARCHITECTURE GRAPHICS I (CODE- 1S-A-4)**  
**TEACHING SCHEDULE (2022-23)**

Theory		Marks	Practical / Sessional	Marks
College Assessment		--	College Assessment	100
University Examination		--	University Examination	--
Duration of University Theory Examination: -- Hours.				
Total Credits: T+P= 03				
<b>Reference Text Books</b>				
A	Architectural Graphics		Ching Francis D.K.	
B	Rendering with pen and ink		Gill Robert	
C	Practical plane and solid geometry		H. Joseph and Morris	
<b>Other Text Books of Interest</b>				
1				
2				

**Studio / Lecture Details**

<b>Topic/ Project</b>	<b>Unit No.</b>	<b>Refer Books</b>	<b>No. of Studio Hrs Planned</b>	<b>Probable Dates of Teaching</b>	<b>Actual Dates of Teaching</b>	<b>No. of Lectures Taken</b>
<b>Objectives:</b> To introduce students to architectural drawing techniques with due emphasis to scale, annotations, labeling and dimensioning. To enable students to express simple three dimensional objects and building components through technical drawings, using various graphic projection systems such as orthographic, Isometric and Axonometric projections.						
<b>Unit I: Introduction to graphic language and its components</b> Line types: meaning and application Architectural Lettering and dimensions in techniques Architectural annotations and conventions including representation of various building materials and building components Graphic scales and their application	I	A,B	6			
<b>Unit II: Plane and Solid geometry</b> Introduction to graphical construction of various plane geometrical shapes. <i>Introduction to various projection systems</i> used in Architectural drawing; such as Orthographic, Isometric and Axonometric projections to draw and represent various three dimensional geometrical objects/forms.	II	A,B, C	4  20			
Mid I (Progress Submission)						
<b>Unit III: Scale Drawing</b> Scale drawing (plan/s section/s and elevation/s) of a simple G+1 building of sufficient size (drawings of which has to be provided) to demonstrate use of various metric scales, conventions and standard annotations especially indicating the vertical circulation & toilet details in section.	III	B, C	18			
Mid II (Final Submission and Viva)						
<b>Total Number of Lectures (12 W)</b>			<b>48</b>			

**Subject Incharge :** Mrs. Kalpana R Thakare, Ms. Mrugakshi Wadichar, Mr. Kantesh Hande

**Studio / Lecture Details**

<b>Topic/ Project</b>	<b>Unit No.</b>	<b>Refer Books</b>	<b>No. of Studio Hrs Planned</b>	<b>Probable Dates of Teaching</b>	<b>Actual Dates of Teaching</b>	<b>No. of Lectures Taken</b>
<b>Objectives:</b> To introduce students to architectural drawing techniques with due emphasis to scale, annotations, labeling and dimensioning. To enable students to express simple three dimensional objects and building components through technical drawings, using various graphic projection systems such as orthographic, Isometric and Axonometric projections.						
<b>Unit I: Introduction to graphic language and its components</b> Line types: meaning and application Architectural Lettering and dimensions in techniques Architectural annotations and conventions including representation of various building materials and building components Graphic scales and their application	I	A,B	6			
<b>Unit II: Plane and Solid geometry</b> Introduction to graphical construction of various plane geometrical shapes. <i>Introduction to various projection systems</i> used in Architectural drawing; such as Orthographic, Isometric and Axonometric projections to draw and represent various three dimensional geometrical objects/forms.	II	A,B, C	4  20			
Mid I (Progress Submission)						
<b>Unit III: Scale Drawing</b> Scale drawing (plan/s section/s and elevation/s) of a simple G+1 building of sufficient size (drawings of which has to be provided) to demonstrate use of various metric scales, conventions and standard annotations especially indicating the vertical circulation & toilet details in section.	III	B, C	18			
Mid II (Final Submission and Viva)						
<b>Total Number of Lectures (12 W)</b>			<b>48</b>			

**Subject Incharge : Mrs. Kalpana R Thakare, Ms. Mrugakshi Wadichar, Mr. Kantesh Hande**

Studio No.	Hrs	Class work Schedule
1	1	<b>Objectives:</b> To introduce students to architectural drawing techniques with due emphasis to scale, annotations, labeling and dimensioning. To enable students to express simple three dimensional objects and building components through technical drawings, using various graphic projection systems such as orthographic, Isometric and Axonometric projections.
1	1	<b>Unit I: Introduction to graphic language and its components</b> Line types: meaning and application : <ul style="list-style-type: none"> <li>- Horizontal, Vertical, Slanting Lines</li> <li>- Continuous/ discontinuation , Centreline, Section Line, Dimension Line</li> <li>- Different Materials depiction in Plan, Elevation and Section</li> <li>- Different Building and surrounding Elements/ Parts in Plan, Elevation and Section</li> </ul>
2	2	<b>Unit I: Introduction to graphic language and its components</b> Architectural Lettering and dimensions in techniques <ul style="list-style-type: none"> <li>- Lettering in Capital, Small, Calligraphic, For Labelling etc.</li> </ul>
3	2	<b>Unit I: Introduction to graphic language and its components</b> Architectural annotations and conventions including representation of various building materials and building components.
4	2	<b>Unit I: Introduction to graphic language and its components</b> Graphic scales and their application : Plain Scales - 2 problems
5	2	<b>Unit I: Introduction to graphic language and its components</b> Graphic scales and their application: Plain Scales – 4 problems
6	2	<b>Unit I: Introduction to graphic language and its components</b> Graphic scales and their application: Diagonal Scales -2 problems
7	2	<b>Unit I: Introduction to graphic language and its components</b> Graphic scales and their application: Diagonal Scales – 4 problems
8	2	<b>Unit II: Plane and Solid geometry</b> Introduction to graphical construction of various plane geometrical shapes - Triangle, Square, Pentagon, Hexagon, Heptagon, Octagon etc.
9	2	<b>Unit II: Plane and Solid geometry</b> Architectural drawing; Orthographic, Isometric and Axonometric projections to draw and represent various three dimensional geometrical objects/ forms. <ul style="list-style-type: none"> <li>- Understanding Orthographic Projections – VP, HP, GL/ RL</li> <li>- Isometric Projections – Angles 30-60, 30-90, 30-30.</li> <li>- Axonometric Projections – Angles 45-45</li> </ul>
10	2	<b>Unit II: Plane and Solid geometry</b> <i>Introduction to various projection systems</i> used in Architectural drawing; Orthographic projections to draw and represent various three dimensional geometrical objects/ forms. <ul style="list-style-type: none"> <li>- Orthographic Projections of Cube At Angles 90 degree, 45, 30, to VP and HP etc</li> </ul>
11	2	<b>Unit II: Plane and Solid geometry</b> <i>Introduction to various projection systems</i> used in Architectural drawing; Orthographic projections <ul style="list-style-type: none"> <li>- Prisms - Square Base, Triangle Base, Pentagon Base, Hexagon base</li> <li>- Standing on Ground and at angle</li> <li>- Sleeping on ground and at Angle</li> </ul>

12	2	<p><b>Unit II: Plane and Solid geometry</b> <i>Introduction to various projection systems used in Architectural drawing; Orthographic projections</i></p> <ul style="list-style-type: none"> <li>- Pyramids – Square Base, Triangle Base, Pentagon, Hexagon base etc.</li> <li>- Cylinder and Cone <ul style="list-style-type: none"> <li>- Standing on Ground and at angle</li> <li>- Sleeping on ground and at Angle</li> </ul> </li> </ul>
		<b>Pre Mid I Progress Submission</b>
13	2	<p><b>Unit II: Plane and Solid geometry</b> <i>Introduction to various projection systems used in Architectural drawing; Orthographic projections</i></p> <ul style="list-style-type: none"> <li>- 6 step problems – making angles to both planes</li> <li>- for all solids prisms, pyramids, cylinder and Cone as above</li> <li>- Example 1</li> </ul>
14	2	<p><b>Unit II: Plane and Solid geometry</b> <i>Introduction to various projection systems used in Architectural drawing; Orthographic projections</i></p> <ul style="list-style-type: none"> <li>- 6 step problems – making angles to both planes</li> <li>- for all solids prisms, pyramids, cylinder and Cone as above</li> <li>- Example 2</li> </ul>
15	2	<p><b>Unit II: Plane and Solid geometry.</b> <i>Introduction to various projection systems used in Architectural drawing; Isometric projections to draw and represent various three dimensional geometrical objects/forms.</i></p> <ul style="list-style-type: none"> <li>- Prisms - Square Base, Triangle Base, Pentagon Base, Hexagon base</li> </ul>
16	2	<p><b>Unit II: Plane and Solid geometry.</b> <i>Introduction to various projection systems used in Architectural drawing; Isometric projections</i></p> <ul style="list-style-type: none"> <li>- Prisms - Square Base, Triangle Base, Pentagon Base, Hexagon base</li> <li>- Pyramids – Square Base, Triangle Base, Pentagon, Hexagon base etc.</li> </ul>
17	2	<p><b>Unit II: Plane and Solid geometry.</b> <i>Introduction to various projection systems used in Architectural drawing; Isometric projections</i></p> <ul style="list-style-type: none"> <li>- Pyramids – Square Base, Triangle Base, Pentagon, Hexagon base etc.</li> <li>- Cylinder and Cone</li> </ul>
18	2	<p><b>Unit II: Plane and Solid geometry.</b> <i>Introduction to various projection systems used in Architectural drawing; Isometric projections</i></p> <ul style="list-style-type: none"> <li>- Pyramids – Square Base, Triangle Base, Pentagon, Hexagon base etc.</li> <li>- Cylinder and Cone</li> </ul>
19	2	<p><b>Unit II: Plane and Solid geometry.</b> <i>Introduction to various projection systems used in Architectural drawing; Isometric projections</i></p> <ul style="list-style-type: none"> <li>- Cylinder and Cone</li> </ul>
20	2	<p><b>Unit III: Scale Drawing</b> Scale drawing (plan/s section/s and elevation/s) of a simple G+1 building of sufficient size (drawings of which has to be provided) to demonstrate use of various metric scales, conventions and standard annotations especially indicating the vertical circulation &amp; toilet details in section.</p> <ul style="list-style-type: none"> <li>- Example 1</li> </ul>
21	2	<p><b>Unit III: Scale Drawing</b> Scale drawing (plan/s section/s and elevation/s) of a simple G+1 building of sufficient size (drawings of which has to be provided) to demonstrate use of various metric scales, conventions and standard annotations especially indicating the vertical circulation &amp; toilet details in section.</p> <ul style="list-style-type: none"> <li>- Example 1</li> </ul>

22	2	<b>Unit III: Scale Drawing</b> Scale drawing (plan/s section/s and elevation/s) of a simple G+1 building of sufficient size (drawings of which has to be provided) to demonstrate use of various metric scales, conventions and standard annotations especially indicating the vertical circulation & toilet details in section. - Example 2
23	2	<b>Unit III: Scale Drawing</b> Scale drawing (plan/s section/s and elevation/s) of a simple G+1 building of sufficient size (drawings of which has to be provided) to demonstrate use of various metric scales, conventions and standard annotations especially indicating the vertical circulation & toilet details in section. - Example 3
24	2	<b>Unit III: Scale Drawing</b> Scale drawing (plan/s section/s and elevation/s) of a simple G+1 building of sufficient size (drawings of which has to be provided) to demonstrate use of various metric scales, conventions and standard annotations especially indicating the vertical circulation & toilet details in section. - Example 4
		Mid II (Final Submission and Viva)
24 Studios	48 Hrs	

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIRST SEMESTER (2022-23)**  
**Subject: Structural Design And System-I (1s-A-5)**

**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	100	College Assessment	--
<b>Total Credits: 3T</b>			
<b>Reference Text Books</b>			
A	Structural Engineering for Architecture	A. P. Dongre	
B	Textbook of Engineering Mechanics (SI Units)	R. S. Khurmi	
C	Engineering Mechanics	S. Ramamrutham and R. Narayanan	
D	Mechanics of Structures	H. J. Shah and S. B. Junnarkar	
E	Engineering Mechanics Statics and Dynamics	Ferdinand L. Singer	



### Lecture Details

Topic	Unit No.	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Overview of the Structural System in Architecture:</b> <ul style="list-style-type: none"> <li>• Study of types of loads and types of beams</li> <li>• Load bearing structure</li> <li>• RCC frame structure</li> <li>• Steel trusses in residential and industrial buildings with suitable examples from historical and contemporary architecture</li> </ul>	I	08	18/11, 23/11 23/11, 25/11 30/11, 30/11 2/12, 7/12		
<b>Introduction to Structural Mechanics:</b> <ul style="list-style-type: none"> <li>• Introduction of forces, composition, resolution, moments and couples.</li> <li>• Resultant of forces, Concurrent and non-concurrent co-planar force systems.</li> <li>• Principle of moments, Varignon's theorem.</li> </ul>	II	10	7/12, 9/12, 14/12, 14/12  16/12, 21/12  21/12, 23/12, 28/12, 28/12		
<b>Principle of Equilibrium: (2D Elements)</b> <ul style="list-style-type: none"> <li>• Basic principles and conditions of equilibrium</li> <li>• Study of Lami's theorem and Free Body Diagrams</li> <li>• Study of structural support reactions: Study of reactions of simple support, hinged support, roller support and fixed support</li> </ul>	III	10	30/12, 04/01, 04/01 06/01, 06/01  18/01, 18/01, 20/01, 25/01, 25/01		
<b>Geometric properties of plane sections:</b> <ul style="list-style-type: none"> <li>• Centre of gravity</li> <li>• Moment of inertia (second</li> </ul>	IV	09	27/01, 01/02 01/02, 03/02		

moment of area)- section modulus, radius of gyration, polar moment of inertia			08/02, 08/02, 10/02, 15/02, 15/02		
<b>Analysis of Trusses:</b> Perfect frames (Method of joints)	V	04	17/02, 22/02, 22/02, 24/02		

Subject In-charge: Mrs. S. R. Kathikar

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIRST SEMESTER (2022-23)**  
**Subject: History of Civilization (1S-A-6)**

**Objectives:** To provide an introduction to the architecture of early civilisations as an expression of art and culture of that place. To understand and interpret basic needs and lifestyle as determining factors for growths of early settlements.

<b>Theory + Practical</b>	
College Assessment	100 Marks
University Examination	-----
<b>Total Marks</b>	<b>100 Marks</b>
Duration of University Theory Examination: -----	
<b>Reference Text Books</b>	
A	History of World Civilisations J.E. Swain.
B	A Short History of the World H. G. Wells

Lecture Details						
Topic/ Project	Unit No.	Refer Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Prehistoric Architecture-</b> Evolution of architecture. A study of primitive people, shelters, settlements. Examples: Menhirs, Dolmens, Trilithons, Stone circles, Stone hedge, Cave dwellings. CatalHuyuk	I	A & B		23/11,26/11,		
<b>Nile Valley Civilization:</b> The impact of the context, culture and society on art and architecture of the Egyptian Civilization. Evolution of tombs, valley of Kings, necropolis	II	A & B		30/11, 7/12		
<b>Indus Valley Civilisation:</b> The impact of the context, culture and society on art and architecture during Early Indus settlements in Mehrgarh, Harrapa, MohenjoDaro, Dholavira.	III	A & B		10/12, 14/12,21/12,		
Pre-Mid Submission						
<b>Euphrates &amp; Tigris river valley Civilisation:</b> The impact of the context, culture and society on art and architecture of Asayrian, Sumerian, Mesopotamian and Babylonian period.	IV	A & B		24/12, 28/12, 4/1, 11/1, 14/1,		
<b>Yellow River Civilisation:</b> The impact of the context, culture and society on art sculpture and Architecture during Prehistoric, Xia Dynasty, Shang Dynasty and Zhou Dynast	V	A & B		18/1, 25/1, 28/1, 1/02,		
<b>Vedic Architecture and Settlements:</b> Rise of cities, Mahajanapadas, introduction to scripture	VII	A & B		8/02, 11/02, 15/02		
<b>Exercises:</b> Design of exercises to understand, analyze, interpret, synthesize the study of historical structures to develop understanding of architecture						

**Subject In-charge:**  
Ar. AbhilashaDongre

**Subject In-charge:**  
Ar. KalpanaThakare



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIRST SEMESTER (2022-23)**  
**Subject: Computer Application - I (1S-A-7)**

**Syllabus**

**Objectives:** This subject is to empower students with computer software useful for architects to enhance the skills of presentation, drafting and coordination of design and other subjects. To learn presentation software for enhancement of architectural drawings, sketches and convey ideas through presentations.

<b>Theory + Practical</b>		
College Assessment		50 Marks
University Examination		-----
Total Marks		50 Marks
Duration of University Theory Examination: -----		
<b>Reference Text Books</b>		
A	Excel 2019 Bible	Michael Alexander
B	Excel 2019 All-in-One for Dummies	Greg Harvey
C	Adobe Photoshop Classroom in a Book (2022 release)	Andrew Faulkner, Conrad Chavez

<b>Lecture Details</b>						
<b>Topic/ Project</b>	<b>Unit No.</b>	<b>Refer Books</b>	<b>No. of Lectures Planned</b>	<b>Probable Dates of Teaching</b>	<b>Actual Dates of Teaching</b>	<b>No. of Lectures Taken</b>
M.S. office – Basics of M.S. office software, M.S word, PPT presentation or equivalent software and Excel	I	A & B		24/11/2022 01/12/2022 08/12/2022 15/12/2022 22/12/2022 29/12/2022		
Pre-Mid Submission						
Mid Exam -I						
Photoshop etc. to enhance presentation skills with help of software.  Pre Mid Exam II Submission of Folio	II	C		05/01/2023 12/01/2023 19/01/2023 26/01/2023 02/02/2023 09/02/2023 16/02/2023		
<b>Last date of teaching</b>						
<b>Last date of submission</b>						

**Subject In-charge:**  
Ar. Abhilasha Dongre  
Ar. Kalyani Mulmule

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIRST SEMESTER**  
**SUBJECT: ELECTIVE I (CODE- 1S-A-9)**  
**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>	<b>Marks</b>	<b>Practical / Sessional</b>	<b>Marks</b>
College Assessment	--	College Assessment	100
University Examination	--	University Examination	--
Duration of University Theory Examination:-- Hours.			
Total Credits: T+P= 02			
<b>Reference Text Books</b>			
A	Language in use	Adrian, D. and Christopher J. (2000).	
B	Analytical Graphics	Dinsmore, G.A. (1968)	
C	Edward J. F. and Lee J. (2000)	Edward J. F. and Lee J. (2000)	

<b>PRESENTATION SKILLS:</b>	
<b>Key words:</b>	Presentation, Communication, Presentation Techniques, Public Speaking, Group Discussions.
<b>Objectives:</b>	<p>The main objective of this course is to develop the skill of students by introducing fundamental techniques of Visual representation and to equip them with basic principles of representation which will enhance the quality of graphical language for architecture. This subject will also improve the skill of delivering and engaging crowd.</p> <ul style="list-style-type: none"> <li>• To improve on convincing skills of students.</li> <li>• To enhance the visualization skills of students.</li> <li>• To improve advertisement skills.</li> <li>• Introduction to Public Speaking.</li> <li>• The psychology of audience.</li> </ul>
<b>PUBLIC SPEAKING:</b>	
<b>Key Words:</b>	Speaker, Audience, Topic, Skills.
<b>Objectives:</b>	<ul style="list-style-type: none"> <li>• To develop the skills to address crowd.</li> <li>• Visual aids in public speaking.</li> <li>• The psychology of audience.</li> </ul>



### Studio / Lecture Details

Topic/ Project	Unit No.	Refer Books	No. of Studio Hrs Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Unit I:</b> Introduction to Presentation Skills and Public Speaking (methods, use & application, delivering presentation).  <u>Sub topics for Public Speaking:</u> <ul style="list-style-type: none"> <li>• Introduction to public speaking</li> <li>• Visual aids in public speaking</li> <li>• The psychology of audience</li> </ul>	I	---	9	21/11/2022 28/11/2022 05/12/2022		
<b>Unit II:</b> Presentation Techniques (Manual Skills and digital presentation techniques)	II	A,B,C	9	12/12/2022 19/12/2022 26/12/2022		
Mid I (Progress Submission)						
<b>Unit III:</b> Mediums of Presentation (Verbal, Illustrative, digital, 3 Dimensional)	III	B	9	09/01/2023 16/01/2023 23/01/2023		
<b>Unit IV:</b> Software: <ul style="list-style-type: none"> <li>• PPT</li> <li>• Canva</li> </ul>	IV	---	9	30/01/2023 06/01/2023 13/01/2023		
Mid II (Final Submission and Viva)						
<b>Total Number of Lectures (12 W)</b>			<b>36 Hrs</b>			

Subject In charge:

Ar. Rashi Shrigadiwar

Mrs. Anjali Narad



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**NUMERICAL ABILITY ELECTIVE (IS-A-9)**  
**B.ARCH. I SEMESTER**  
**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	100	College Assessment	--
University Examination	--	University Examination	--
Duration of Theory Examination: 2 hours			
Total Credits: 3T			
<b>Reference Text Books</b>			
A	Higher Engineering Mathematics	B. S. Grewal	
B	Engineering Mathematics	H.K. Dass	

### Lecture Details

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Differentiation &amp; Integration</b> a. Basic formulae in derivatives b. rate Measure c. Slopes d. Elementary integration e. Areas & Volumes f. Differential Equation- 1 <sup>st</sup> Order	I	A	1 1 1 1 1 1 1	21/11/22 21/11/22 28/11/22 28/11/22 05/12/22 05/12/22		
<b>Plane Trigonometry</b> a. Pythagoras triplets b. Heights & Distances c. Trigonometrically ratios & standard angle	II	A,B	1 1 1	19/12/22 26/12/22 26/12/22		
<b>Mathematics of Curves</b> a. Circle b. Ellipse c. Hyperbola & Parabola d. Standard Solids-cone e. Cylinder f. Ellipsoid g. Paraboloid h. Hyperboloid	III	A,C	1 1 1 1 1 1 1 1	09/01/23 09/01/23 16/01/23 16/01/23 16/01/23 23/01/23 23/01/23 30/01/23		
<b>Ratios &amp; Proportions</b> a. System of praportional dimentions b. Goldan section Proportions & Progrations	IV	A,C	1 1	06/02/23 06/02/23		
<b>Basic Statics</b> a. Moments b. Moment of Inertia c. Couples d. Work Done UNIT TEST	V	A,C	1 1 1 1 1	13/02/23 20/02/23 20/02/23 27/02/23 27/02/23		
<b>Total Number of Lectures</b>			<b>24</b>			

**Subject In charge: Mrs. Jyoti Badwaik (ESH Dept)**

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. SECOND SEMESTER (CBCS)**  
**ARCHITECTURAL DESIGN – II (2S-A-1)**

Teach

**Objective-** The objective is to develop understanding of various concepts of design evolution, understand human interface with various furniture, objects, leading to design of simple built spaces.

1. **Principles of Design:** Basic principles of spatial organization, symbiosis of form and function, concept generation, convergent & divergent thinking in design.
2. **Furniture & Facilitation:** Need of furniture as an aid to enhance activities, study of various furniture in isolation and in combination.
3. **Climate & Design:** Orientation, climatic coordination and architectural elements like chajjas, fins, fenestration etc.

**Sessional Work-**

Assignments on each unit with presentation, lecture and site visits.  
 Design of simple familiar activity spaces like residence, school, canteen etc.  
 Small modules of short design projects based on above mentioned topics.

**TEACHING SCHEDULE (2S-A-1)**

<b>Practical</b>		<b>Marks</b>
College Assessment (Sessional)		150
University Examination (Viva voce)		50
Total Credits: = 200		
<b>Reference Text Books</b>		
A	Form Space And Order.	D.K Ching
B	Peter Streens	Patterns in Nature
C	John R. Mather -	Climatology : Fundamentals and Application
<b>Other Text Books of Interest</b>		
E	Time Saver Standards for Building Types	J.H. Calendar
F	Neuferts 3 <sup>rd</sup> Edition Architects Data	Bousmaha Baiche, Nicholas Walliman
G	Metric Handbook Planning and Design Data 4th Edition	David Littlefield
H	Vitruvius Ten books on Architecture	Vitruvius
I	Toward and new Architecture	Le Corbusier

**Studio Details**

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<p><b><u>Principles of Design:</u></b></p> <p>Basic principles of spatial organization, symbiosis of form and function, concept generation, convergent &amp; divergent thinking in design.</p>	I	A, B, C.	08	<p>09/04/2022 Introduction of Design Problem -1: Ticket counter for Park. ✓</p> <p>11/04/2022 User analysis and activity analysis.</p> <p>18/04/2022 Area analysis, spaces allotment and circulation diagram. ✓</p> <p>18/04/2022 Area analysis, spaces allotment and circulation diagram. /</p>	<p>09/04/2022 Introduction of Design Problem -1: Ticket counter for Park.</p> <p>11/04/2022 User analysis and activity analysis.</p> <p>16/04/2022 ( Saturday Holiday )</p> <p>18/04/2022 Area analysis, spaces allotment and circulation diagram.</p> <p>23/04/2022 (surveying &amp; documentation)</p> <p>25/04/2022 ( Second Mid Examination )</p> <p>30/04/2022 ( Saturday Holiday )</p>	06
<p><b><u>Furniture &amp; Facilitation:</u></b></p> <p>Need of furniture as an aid to enhance activities, study of various furniture in isolation and in combination.</p>	II	A	06	<p>02/05/2022 Concept development and theme.</p> <p>07/05/2022 Concept development and theme.</p> <p>07/05/2022</p>	<p>02/05/2022 Concept development and theme.</p> <p>07/05/2022 Role of climate in architectural design.</p> <p>09/05/2022 Architectural representation</p>	06



					Preparation of submission	
<b>Submission</b>	1. Ticket counter for park					
	2. Dream House					
<b>Mids-II</b>	Second mid sessional examination 2021-2022 AD-II Topic-Redesign of HOD's cabin Dept. OF Architecture, KITS Ramtek.					
<b>Final Submission Date</b>	28-05-2022					

Ar. Pratik P. Purkar  
Ar. Bhavana N. Raut  
(Teacher Incharge)

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. SECOND SEMESTER (SCBS)**  
**BUILDING CONSTRUCTION AND MATERIALS II (2S-A-3)**

**Objective-**

1. To understand the basic building elements, their function and behavior under various conditions with specific reference to timber construction.
2. To help students to develop a clear understanding of basic principles of construction and materials suitable for load bearing construction & Concept of span.

**Unit I:** TIMBER Seasoning, its necessity and various methods, (Market survey to learn various types available, their sizing and costing and application in construction of building elements and furniture). Types of timber joinery - principles and design considerations, their application in construction of various elements, items of building construction and in design of furniture.

**Unit II:** A) Wooden Doors - Design criteria and principles. types and Standard Terminologies. Design and detailed drawing work for Single leaf fully paneled doors, Single leaf partly paneled partly glazed doors, Double leaf fully paneled doors; with important joinery details. B) Wooden Windows - Design criteria and principles. Types and Standard Terminologies. Design and detailed drawing work for Fully Glazed windows with mullion(s) and with Transom. Sash Windows, Centrally pivoted window, Top Hung Window, Louvered Window, with adequate number of important joinery details Study of various fixtures, fittings, fastenings for doors and windows.

**Unit III:** Concept of Span and its application in providing / making openings in Masonry walls. Lintels its definition, purpose, basic Terminology, load considerations. Lintel Types such as stones, bricks, wood, steel, R.C.C., Rein. brick with their design criteria and considerations. Arches: Definition, purpose / function. Standard Terminologies. Load considerations. .Comprehensive study of classification and types of arches. Centering for arches.

**Unit IV:** Foundation, Basic design considerations. Simple foundations for load bearing walls in stone and brick masonry. Timbering to trenches for various types of soil.

**TEACHING SCHEDULE (2S-A-1)**

Practical		Marks
College Assessment (Sessional)		50
University Examination		100
Total Credits: = 150		
Reference Text Books		
A	Building Construction	Mackay W. B., Vol. 1 – 4
B	Building Construction	Barry, Vol. 1 – 5
C	Construction Technology	Chudley, Vol. 1 – 6
E	Building construction Illustrated"	Ching Francis D. K
F	Elementary Building Construction	Michell



### Studio Details

Topic	Unit No	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Unit I:</b> TIMBER Seasoning, its necessity and various methods. Types of timber joinery - principles and design considerations, their application in construction of various elements, items of building construction and in design of furniture.	I	A & B	06	30/03/2022- 31/03/2022	30/03/2022- 31/03/2022	06
<b>Unit II:</b> A) Wooden Doors - Design criteria and principles. types and Standard Terminologies. Design and detailed drawing work for Single leaf fully paneled doors, Single leaf partly paneled partly glazed doors, Double leaf fully paneled doors; with important joinery details. B) Wooden Windows - Design criteria and principles. Types and Standard Terminologies. Design and detailed drawing work for Fully Glazed windows with mullion(s) and with Transom. Sash Windows, Centrally pivoted window, Top Hung Window, Louvered Window, with adequate number of important joinery details Study of various fixtures, fittings, fastenings for doors and windows.	II	A & B	06	06/04/2022- 07/04/2022	06/04/2022- 07/04/2022	06
<b>Unit III:</b> Concept of Span and its application in providing / making openings in Masonry walls. Lintels its definition, purpose, basic Terminology, load considerations. Lintel Types such as stones, bricks, wood, steel, R.C.C., Rein. brick with their design criteria and considerations. Arches: Definition, purpose / function. Standard Terminologies. Load	III	A & B	06	13/04/2022- 20/04/2022	13/04/2022- 20/04/2022	06

considerations. .Comprehensive study of classification and types of arches. Centering for arches.						
<b>Unit IV:</b> Foundation, Basic design considerations. Simple foundations for load bearing walls in stone and brick masonry. Timbering to trenches for various types of soil.	IV	A & B	02	10/05/2022- 12/05/2022	10/05/2022- 12/05/2022	02
<b>Examination</b>	1. first mid exam					
	2. second mid exam_MCQ set					
<b>Final Submission Date</b>	15-06-2022					

Ar. Sangeeta Jhanwar  
(Teacher Incharge)

Ar. Bhavana N. Rout.

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**SUBJECT: WORKSHOP PRACTICE - II (2S-A-8)**  
**B.ARCH . II SEMESTER**

**TEACHING SCHEDULE (2020-21)**

<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	---	College Assessment	100
University Examination	---	University Examination	---
Duration of University Theory Examination:			
Total Credits:			
Reference Text Books			
A	---		

Topic/ Project	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Finishing Surfaces: Understanding various surface finishing techniques and processes received by different material like wood,steel,aluminium,stone etc.	I	-	01	13-05-2021	13-05-2021	01
Paints and Polish: Surface preparation,use of sand paper,application of base coat, middle coat and final coat,understanding oil paints,decopaints,acrylic paints etc.	II	-	01	20-05-2021	20-05-2021	01
Study of various application techniques like brush,pads,scalpel,spray paints,working on highlights for painting.	III	-	01	27-05-2021	27-05-2021	01
Design and executing prototype of simple objects like pen stand,projector stand,lamp shades,paper tray,CD stand,knife holder,kitchen accessories and finishing of selected material.	IV	-	01	03-06-2021	03-06-2021	01
Model Making of identified architectural projects and submission	V	-	01	17-06-2021	17-06-2021	01

*Khande*  
18-06-21

**Subject Incharge : Mr. Kantesh Hande**

Topic/ Project	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Finishing Surfaces:</b> Understanding various surface finishing techniques and processes received by different material like wood, steel, aluminium, stone etc.	I	-	04	22-12-2018 29-12-2018 05-01-2019 12-01-2019	22-12-2018 29-12-2018 05-01-2019 12-01-2019	04
<b>Paints and Polish:</b> Surface preparation, use of sand paper, application of base coat, middle coat and final coat, understanding oil paints, decopaints, acrylic paints etc.	II	-	02	19-01-2019 02-02-2019	19-01-2019 23-01-2019 30-01-2019	03
<b>MID-I</b>				04-02-2019 to 09-02-2019	05-02-2019 to 10-02-2019	
Study of various application techniques like brush, pads, scalpel, spray paints, working on highlights for painting.	III	-	02	16-02-2019 23-02-2019	27-02-2019 06-03-2019	02
Design and executing prototype of simple objects like pen stand, projector stand, lamp shades, paper tray, CD stand, knife holder, kitchen accessories and finishing of selected material.	IV	-	02	02-03-2019 09-03-2019	13-03-2019	01
Model Making of identified architectural projects	V	-	03	16-03-2019 23-03-2019 30-03-2019	20-03-2019	01

*Khande*

**Subject Incharge : 1) Mr. Kantesh Hande**

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Finishing Surfaces: Understanding various surface finishing techniques and processes received by different material like wood, steel, aluminum, stone etc.	I	-	4	22/12/18 29/12/18 05/01/19 12/01/19	22/12/18 29/12/18 05/01/19 12/01/19	04
Paints and Polish: Surface preparation, use of sand paper, application of putty, application of base coat, middle coat and final coat, understanding oil paints, decopaints, acrylic paints etc.	II	-	2	19/01/19 02/02/19	19/01/19 23/01/19 30/01/19	03
MID - I				04/02/2019 to 09/02/2019		
Study of various application techniques like brush, pads, scalpel, spray paints, working on highlights for painting.	III	-	2	16/02/19 23/02/19	27/02/19 06/03/19	02
Design and executing prototype of simple objects like pen stand, projector stand, lamp shades, paper tray, CD stand, knife holder, kitchen accessories and finishing of selected material.	IV	-	2	02/03/19 09/03/19 1	13/03/19	01
Model Making of identified architectural projects	V	-	3	16/03/19 23/03/19 30/03/19	20/03/19	01

Subject Incharge: Kantesh Hande

*Kantesh Hande*  
08-12-2018

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**SUBJECT: FUNDAMENTALS OF PAINTING (2S-A-9)**  
**B.ARCH . II SEMESTER**

Teaching Sched

**TEACHING SCHEDULE (2021-22)**

<b>Theory</b>		<b>Marks</b>	<b>Practical</b>		<b>Marks</b>
College Assessment		---	College Assessment		100
University Examination		---	University Examination		---
Duration of University Theory Examination:					
Total Credits:					
<b>Reference Text Books</b>					
A	---				

Topic/ Project	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
1)Fundamental of Art 1)Line 2)Shape 3)Form 4)Colour 5)Texture 6)Space 7)Value (With Examples)	I	-	01	29/03/2022	29/03/2022	01
2)Cross Hatching Technique 2A)Cross Hatching 2B) Cross Hatching with Freedom 2C) Combining groups of lines 2D)Grey Scale 3)Book ref.Sketch	II	-	01	05/04/2022	01/04/2022	01
4)Fundamental of Art (Optical Illusion)	III	-	01	09/04/2022	09/04/2022	01
5)Various Rendring Techniques 1) Pencil Rendring 2)Pen Hatching 3)Staedtler Pencil 4)Poster Colour 5) Water Colour	III	-	01	12/04/2022	12/04/2022	01
6)Fundamental of Art ( Cube)	IV	-	01	16/04/2022	19/04/2022	01
7)2D Design Natural Elements	IV		01	19/04/2022	23/04/2022 10/05/2022	02
MID - I				25/04/2022 to 28/04/2022		
8)Memory Drawing Bus Stop	IV		01	10/05/2022	17/05/2022	01
MID - II			07	30/05/2022 to 08/06/2022		08

Subject Incharge : Mr. Kantesh Hande

*Khande*  
03-06-22





**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE, THIRD SEMESTER**  
**ARCHITECTURAL DESIGN-III (3S-A-1)**

**TEACHING SCHEDULE (2022-23)**

Theory	Marks	Practical	Marks
Sessional	150	Viva Voce	50
Total Credits: L + S = 1+6 = 7			
Reference Text Books			
A.	NEUFERTS STANDARD	Pert Neufert, Ernst Neufert	
B.	C.M. Deasy -Design for Human Affairs.		
C.	Anthony Scaley, Introduction to Climatology.		

**Lecture Details**

Topic	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken	
<ul style="list-style-type: none"> <li>• Presentation on: Complexity in Architecture, Characteristics of material and its implications</li> <li>• Float an assignment to students on Various architectural elements in the context of functions. (Class work &amp; Discussion)</li> </ul>	Magazine's & Books available in Library	01	17/08/22	17/08/22	01	
<ul style="list-style-type: none"> <li>• Presentation by students on above assignment</li> <li>• Introduction to major Design Problem and discussion.</li> </ul>		01	24/08/22	24/08/22	01	
<b>DESIGN STAGES :</b>						
<b>Design Problem 1 : Primary school</b>						
Stage-1	Case Study, Literature study, Net Study. Data Collection, Byelaws Study	NEUFERTS STANDARD	01	27/08/22	27/08/22	01
Stage-2	Comparative Analysis & Brain Storming Site Analysis Zoning & Circulation		01	07/09/22	07/09/22	01

Stage-3	Plan-Form Development		02	10/09/22	10/09/22	02
	Construction Details			14/09/22	14/09/22	
Stage-4	Elevation Development With Sections, Site plan		01	21/09/22	21/09/22	01
<b>Final Submission with Views/Model And All Details on:- 29/09/22</b>						
Preparation for 1st Mid sessional exam						
<b>1st Mid sessional exam 17/10/22 to 22/10/22</b>						
<b>DESIGN STAGES :</b>						
<b>Design Problem 2 : Architects Residence cum office</b>						
Stage-1	Case Study, Literature study Net Study.		01	08/10/22	---	00
	Data Collection, Byelaws Study			12/10/22		
Stage-2	Comparative Analysis & Brain Storming		02	02/11/22	02/11/22	03
	Site Analysis Zoning & Circulation			09/11/22	09/11/22 (extraclass)	
Stage-3	Plan-Form Development		02	16/11/22	16/11/22	02
	Construction Details			23/11/22	23/11/22	
Stage-4	Elevation Development With Sections, Site plan		02	24/11/22	24/11/22	02
				30/11/22	30/11/22	
<b>Extra classes from 29/11/22 to 08/11/22</b>						
<b>Final Submission with Views/Model And All Details on:- 09/11/22</b>						

Subject In-charge:  
Ar. Prerna Chahande  
Ar. Kalyani Mulmule

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**SUBJECT : ALLIED DESIGN STUDIO-III (3S-A-2)**  
**B.ARCH. : III SEMESTER**

**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>	<b>Marks</b>	<b>Practical / Sessional</b>	<b>Marks</b>
College Assessment	--	College Assessment	100
University Examination	--	University Examination	--
Duration of University Theory Examination:			
Total Credits:			
<b>Reference Text Books</b>			
A			
B			

### Studio / Lecture Details

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Anthropometry : Anthropometry refers to the measurement of the human individual.(All Age Group Sheet-1)			12	30-08-2022 06-09-2022 13-09-2022 20-09-2022	30-08-2022 13-09-2022 20-09-2022	09
An early tool of physical anthropology, it has been used for identification , for the purposes of understanding human physical variation, in paleoanthropology and in various attempts to correlate physical with racial and psychological traits. (Self Sheet-2)			09	27-09-2022 04-10-2022 11-10-2022	27-09-2022 11-10-2022	06
MID -I				17-10-2022 to 22-10-2022	17-10-2022 to 22-10-2022	
Anthropometry: (Small Boy/Girl- Sheet)			06	01-11-2022 15-11-2022	15-11-2022	03
Anthropometry: (Groupwise Sitting/Standing Sheet -4)			03	22-11-2022	22-11-2022	03
Anthropometry: (Plan& Section Sheet -5)			03	29-11-2022	29-11-2022	03
Model Making			06	06-12-2021 13-12-2021		
<b>Total Number of Lectures</b>			<b>39</b>			<b>24</b>

**Objective:**

- Aim of this subject is make the students aware of Anthropometry & the design, implement , according to role of climatic conditions of space and building.

**Subject In charge :**

1) Mr. Anant Raole

2)Mr. Kantesh Hande

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE,**  
**B.ARCH THIRD SEMESTER (CBCS)**  
**BUILDING CONSTRUCTION AND MATERIALS III (3S-A3)**

**SYLLABUS**

**Objectives:** To strengthen student's knowledge about reinforced cement concrete and its applications in buildings. To equip students about the methods of designing various structural members using reinforced cement concrete.

**Unit I:** Introduction to building materials: Mild Steel and Reinforcement Bar, Stainless Steel, Aluminum, Copper, Titanium, with respect to composition, general know-how with respect to physical, chemical and structural properties their utilities and criteria for selection.

**Unit II:** Concept of vertical connector- Stairs, Design principles/considerations, proportions. Types on basis of Geometry, material and structural systems used. Stairs in Timber, Mild Steel and Stone. Railing types for stairs etc

**Unit III:** Concept of spanning and its application in formation of Floors. Traditional Methods of Flooring such as Timber Floors, Jack arch floors, composite Floors.

**Unit IV:** Principles of Framed Structures - Reinforced Cement Concrete, Complete Drawing work with typical details of R.C.C. Footings, Columns, Lintels, Chajjas, Beams, Canopies, Slabs, Cantilever Beams and Slabs, Fins etc.

**Unit V:** Study of form work, shuttering, for above components of R.C.C

---

**Sessional work:** Site visit reports, tutorials, notes, sketches and market surveys.

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE,**  
**B.ARCH THIRD SEMESTER (CBCS)**  
**BUILDING CONSTRUCTION AND MATERIALS III (3S-A3)**

**TEACHING SCHEDULE (2022-23)**

Theory +Practical	Marks	Practical	Marks
College Assessment	100		
University Examination	100		
Duration of University Theory Examination:- 3 Hours			
Total Credits: T + P = 3+2= 5			
Reference Text Book			
A.	Construction Technology : (vol.1)		J.T. Grundy
B.	Construction Technology : (vol.2)		R.Chudley
C.	Building construction Illustrated 5 <sup>th</sup> edition		Francis D.K. Chings
D.	Building construction metric (vol.2) (vol.3) (vol.4)		K.Mckay
E.	Construction of building		Barry R.

Topic	Unit No.	Course Outcome	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Unit I:</b> Introduction to building materials: Mild Steel and Reinforcement Bar, Stainless Steel, Aluminum, Copper, Titanium, with respect to composition, general know-how with respect to physical, chemical and structural properties their utilities and criteria for selection.	I	3S-A-3.1	1	19/08/2022	19/08/2022	1
<b>Unit II:</b> Concept of vertical connector- Stairs, Design principles considerations, proportions. Types on basis of Geometry, material and structural systems used. Stairs in Timber, Mild Steel and Stone. Railing types for stairs etc.	II	3S-A-3.2	4	26/08/2022 02/09/2022 09/09/2022 16/09/2022	26/08/2022 02/09/2022 23/09/2022	3
<b>Unit III:</b> Concept of spanning and its application in formation of Floors. Traditional Methods of Flooring such as Timber Floors, Jack Arch Floors, Composite Floors.	III	3S-A-3.3	4	21/10/2022 04/11/2022 11/11/2022 18/11/2022	07/10/2022 11/11/2022 18/11/2022 25/11/2022	4
<b>Unit IV:</b> Principles of Framed Structures - Reinforced Cement Concrete, Complete Drawing work with typical details of R.C.C. Footings, Columns, Lintels, Chajjas, Beams, Canopies, Slabs, Cantilever Beams and Slabs, Fins etc.	IV	3S-A-3.4	4	23/09/2022 30/09/2022 07/10/2022 14/10/2022		
<b>Unit V:</b> Study of form work, shuttering, for above components of R.C.C.	V	3S-A-3.4	1	02/12/2022 09/12/2022	16/09/2022 23/09/2022	2

### Assignment Details

Assignment	Assignment Dates	Probable Submission Date	Outcome
<b>Unit- 1</b> Find and capture given material used in building for different purpose.	19/08/2022	26/08/2022	The student learned different types of Building Materials like M.S., Stainless steel etc. with their Chemical, Physical Properties, and the purpose of its use in construction & their market value and students will know how the selection of material.
<b>Unit –II</b> a) Draw types of Staircase	26/08/2022	09/09/2022	The student shall be able to understand the different types of staircase.
b) Draw Detail staircase	02/09/2022	16/09/2022	The student shall be able to draw the detail staircase and understand the RCC details.
<b>Unit –III</b> a) Draw different types of floor.	16/09/2022	04/11/2022	The student shall be able to learnt different types of formation of flooring according to the spanning. They will understand about traditional method of different type of floors.
b) Model of types of floor	11/11/2022	18/11/2022	The student shall be able to understand the
<b>Unit- IVa)</b> Draw one way two way Slab.	23/09/2022	30/09/2022	-
b) Draw details of Framed Structure	07/10/2022	14/10/2022	-
<b>Unit -5</b> a) Draw formwork and shuttering	02/12/2022	09/12/2022	The student shall be able to understand Study of form work, shuttering, for RCC building materials..

Ar. Babita Bijwe  
Ar. Kalyani Mulmule



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. THIRD SEMESTER**  
**SUBJECT: ARCHITECTURAL GRAPHICS III**  
**(3S-A-4)**

**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>		<b>Marks</b>	<b>Practical / Sessional</b>		<b>Marks</b>
College Assessment		--	College Assessment		50
University Examination		--	University Examination		--
Duration of University Theory Examination:-- Hours.					
Total Credits: T+P=03					
<b>Reference Text Books</b>					
A	Applied Perspective		Holmes John M.		
B	Perspective for Architects		Themes and Hudson		
C	Perspective and Sciography		Shankar Mulik		
<b>Other Text Books of Interest</b>					
1	Architecture: Form ,Space & Order –		Francis D. K. Ching		

**Studio / Lecture Details**

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture hours Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Perception and registration</b> of an Object when viewed	I		3	22-08-2022	22-08-2022 24-08-2022 25-08-2022	8
<b>Introduction</b> to picture planes, Stand point, Eye level etc.	I		6	29-08-2022 05-09-2022	26-08-2022 29-08-2022	6
<b>Methods of drawing perspective</b> Conventional method, measuring point method, shortcut and approximation	II		6	12-09-2022 19-09-2022	12-09-2022 19-09-2022	6
<b>PRE MID SUBMISSION I</b>	-					
<b>Bird's eye view</b> showing a building or any object with surrounding landscape, buildings etc.	III		6	26-09-2022 03-10-2022	26-09-2022 03-10-2022	6
<b>Perspective of interior</b> of buildings suitably rendered	IV		3	10-10-2022	10-10-2022	3
<b>Introduction to sciography</b> principle of conventional angle of light and its rays acting as projectors to cast shadow of simple plane lamina. Ex. square, circle, hexagon, etc.	V		6	17-10-2022 07-11-2022	31-10-2022 07-11-2022	6
<b>Digital 3d modeling</b> to understand light and its rays acting as a projector to cast shadow on simple building forms; also shadow cast partly on horizontal and vertical planes.	VI		6	14-11-2022 21-11-2022	14-11-2022 21-11-2022	6
<b>Total Number of Lectures (12 W)</b>			36			41

Subject Incharge :

Ar. Kalpana R. Thakare

Ar. Rashi Shrigadiwar

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**STRUCTURAL DESIGN & SYSTEMS III (2022-23)**  
**B. ARCH. THIRD SEMESTER**

**TEACHING SCHEDULE (2022-23)**

Theory	Marks	Practical	Marks
College Assessment	40	College Assessment	-
University Examination	60	University Examination	-
Duration of University Examination: 3 Hours			
Total Credits: 3T			
Reference Text Books			
A	Strength of Materials	R. K. Rajput	
B	Strength of Materials	R. K. Bansal	
C	Engineering Mechanics	S. Ramamrutham	
D	Strength of Materials	R. S. Khurmi	

COURSE OUTCOMES	
1	The students would be able to understand the behaviour arches, stability of Dam structure & retaining wall.
2	To facilitate the concept of shear and bending stresses and its theoretical analysis in a beam to determine the Bending and shear stress in a given beam.
3	Evaluate the direct and bending stresses
4	Apply knowledge to analyse column and struts.
5	Analyse the three hinged arches.

**LECTURE DETAILS**

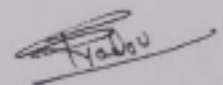
TOPIC	UNIT NO.	REFER BOOKS	NO. OF LECTURES PLANNED	PROBABLE DATES OF TEACHING	ACTUAL DATES OF TEACHING	NO. LECTURES TAKEN
OVERVIEW OF THE STRUCTURAL SYSTEM IN ARCHITECTURE study the behavior of fixed, two hinged & three hinged arches. stability of structural elements of dam structure & retaining wall, the concepts of hinged beam. With suitable examples from historical and contemporary architecture.	I	B	08	22/08-2 26/08-1 29/08-2 12/09-2 16/09-1	22/08-2 26/08-1 29/08-2 10/10-2	07

<b>SHEAR STRESSES</b> Concept and application for shear stresses and its distribution in rectangular, circular, triangular, I, L and T section.	II	B, A	08	17/10-2 21/10-1 24/10-2 28/10-1 31/10-2	04/11-1 07/11-2 14/11-2 21/11-2	07
<b>BENDING STRESSES: CIRCULAR BENDING</b> Concept and application.						
<b>DIRECT BENDING STRESSES</b> AND Concept and application.	III	B, C	07	04/11-1 07/11-2 11/11-1 14/11-2 18/11-2	25/11 02/12 10/12 10/12 10/12	05
<b>COLUMN STRUTS</b> AND Euler's and Rankine's theory concepts and application.	IV	B	06	21/11-2 25/11-1 28/11-2 02/12-1	16/12 16/12 16/12	03
<b>ANALYSIS OF THREE HINGED CIRCULAR ARCHES</b> Determination of normal thrust, horizontal thrust, radial shear force and bending moment.	V	C	10	19/09-2 26/09-2 03/10-2 10/10-2 14/10-1 15/10-1	12/09-2 16/09-1 19/09-2 26/09-2 03/10-2	09
<b>Total Number of Lectures</b>			<b>39</b>			<b>31</b>

**CLASSWORK ON**

Monday (2)

Friday (1)



**Mr. Rajat S. Yadav**

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. THIRD SEMESTER (CBS)**  
**HISTORY OF ARCHITECTURE II (3S-A-6)**

**TEACHING SCHEDULE (2022-2023)**

<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	100	College Assessment	100
University Examination	--	University Examination	--
<b>Reference Text Books</b>			
A. Indian Architecture: Buddhist and Hindu period.		Brown, P. (2010).	
B. A History of Architecture on the Comparative Method.		Fletcher, B. (1996).	
C. Buddhist and Hindu Architecture in India.		Grover, S. (2003).	

Ar. Wani Takkamore

**Studio Details**

<b>Topic</b>	<b>Unit No.</b>	<b>Refer. Books</b>	<b>No. of Lectures Planned</b>	<b>Probable Dates of Teaching</b>	<b>Actual Dates of Teaching</b>	<b>No. of Lectures Taken</b>
I: Buddhist Architecture: Rise of Buddhism and role of Emperor Ashok, Spread of Buddhism to South East Asia. Buddhist building typologies, Chaityas, Viharas, Stupas, Stambha etc. Influence of Silk road on transmission of Buddhism and Architectural language and its transformation.	<b>I</b>	A,B,C	12	23/08/2022 27/08/2022		
II: Jain Architecture: Understanding Importance of material and construction technique in Jain temple architecture.	<b>II</b>	A,B,C	09	30/08/2022 06/08/2022 10/09/2022		
III: North Indian temple architecture: Classification of North Indian Temples. Examples from Orrisa, Khajuraho, Gujarat and Rajasthan.	<b>III</b>	A,B,C		13/09/2022 20/09/2022		
IV: Hemadpanthi Temples Architecture of Central India. Amruteshwar Temple, Ratangad, Tulja Bhawani Temple, Tuljapur, Trimbakeshwar Temple, Nashik, Bhuleshwar temple, Pune, Bhimashankar Temple, Pune.	<b>IV</b>	A,B,C		24/09/2022 27/09/2022		
V. South Indian temple architecture: Classification of South Indian Temples under various dynasties; Pallava, Chalukyan, Chola, Chera, Vijaynagar and Pandya	<b>V</b>	A,B,C		04/10/2022 08/10/2022		

VI Indo-Islamic Architecture during Qutub, Khilji, Tughlaq, Sayyid, and Lodi sultanates.	VI	A,B,C		15/10/2022		
--	----	-------	--	------------	--	--

**Subject Incharge**  
**Ar. Wani Takkamore**

**KAVIKULGURU INSITUTE OF TECHNOLOGY & SCIENCE, RAMTEK**  
**THIRD SEMESTER - B. ARCH.**  
**Subject: CLIMATOLOGY**  
**Code: (3S-A-8)**

**Teaching Schedule**

Syllabus	Proposed date	Actual date
<b>Unit 1</b> - Introduction, Climate & weather	21.7.2022	21.7.2022
<b>Unit 1</b> - Importance of Climatology, Climatic Factors	28.7.2022	04.8.2022
<b>Unit 2</b> - Elements of Climate, Instruments	04.8.2022	18.8.2022
<b>Unit 2</b> - Graphical representation to record climatic data	25.8.2022	25.8.2022
<b>Unit 3</b> - Global climatic zones, Scales of climate	01.9.2022	01.9.2022
<b>Unit 3</b> - Micro-climate, Macro-climate	08.9.2022	08.9.2022
<b>Unit 4</b> - Climate analysis tools, Mahoney tables.	15.9.2022	15.9.2022
<b>Unit 4</b> - Bio-climatic charts, solar geometry, shading devices	22.9.2022	22.9.2022
<b>Unit 5</b> - Thermal comfort factors, thermal comfort indices	29.9.2022	06.10.2022
<b>Unit 5</b> - Heat exchange process, building heat gain	06.10.2022	13.10.2022
<b>Unit 6</b> - Natural ventilation, Ventilation systems	13.10.2022	20.10.2022
Assignment/answer sheets assessment and marks calculation.	20.10.2022	3.11.2022

Kaushal S. Jajoo



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE,**  
**B.ARCH THIRD SEMESTER (CBCS)**  
**ELECTIVE III (3S-A9)**  
**(Institutional Project)**

**SYLLABUS**

**Objectives:** Art of writing specifications for materials and works is very important in which emphasis on the required qualities of materials and study of the specification about rural Architecture.

**Unit I:** Introduction, importance of specifications building construction activity. Types of specifications and its applications, method of writing specifications contents, correct order and sequence s

**Unit II:** Study the specifications of building materials like modern materials, contemporary Materials, and traditional materials.

**Unit III:** Understand the Analysis of plan of different above materials type of a building, study a building Comparative analysis (study of building materials ,composition physical, chemical properties etc.)

**Unit IV:** Introduction of urban and rural planning in India, Analysis and general study of Specification of rural architecture.

---

**Sessional work:** Survey, Notes and tests on above topics.

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE,**  
**B.ARCH THIRD SEMESTER (CBCS)**  
**Elective III(3S-A9)**

**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>		<b>Marks</b>	<b>Practical</b>		<b>Marks</b>
College Assessment		50	College Assessment		50
University Examination		00	University Examination		00
Total		50	Total		50
Duration of University Theory Examination:-					
Total Credits: L+ T = 1+1= 5					
Reference Text Book					
A.	Estimating & Costing				B. N. Dutta, B.S. Publishers.
B	Architecture & Planning for Villages				S.M.Akhtar

## SCHEDULE FOR CLASSES

UNIT	Course Outcome.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Unit I:</b> Introduction, importance of specifications building construction activity. Types of Specifications and its applications, method of writing specifications contents, Correct order and sequence	3S-A9.1	A	3	17/08/2022 24/08/2022 07/09/2022	17/08/2022 14/09/2022	2
<b>Unit II:</b> Study the specifications of building materials like modern materials, contemporary Materials, and traditional materials	3S-A9.2	AB	3	14/09/2022 21/09/2022 28/09/2022	21/09/2022	1
<b>Unit III:</b> Understand the Analysis of plan of different above materials type of a building, study a building Comparative analysis.	3S-A9.3	C	5	12/10/2022 19/10/2022 02/11/2022 09/11/2022 16/11/2022	09/11/2022 16/11/2022 23/11/2022 30/11/2022	4
<b>Unit IV:</b> Introduction of urban and rural planning in India, Analysis and general study of Specification of rural architecture.	3S-A9.4	B	4	23/11/2022 30/11/2022 07/12/2022 11/12/2022		

**Subject Teacher**  
**Ar. Kalyani Mulmule**

### Assignment Details

Assignment	Assignment Dates	Probable Submission Date	Outcome
<b>Unit- I</b> : Write down the brief introduction about Specification. What are the types of Specification and its Application.	24/08/2022	14/09/2022	
<b>Unit -II</b> What are building Material. And write down the brief specification about material.	21/09/2022	19/10/2022	
<b>Unit -III</b> Draw the plan of different type of building write specification of all materials an Comparative analysis	16/11/2022	23/11/2022	
<b>Unit- IV:</b> Draw the urban and rural plan and Write material Specification of rural Architecture	30/11/2022	11/12/2022	

Subject Teacher  
Ar. Kalyani Mulmule

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FOURTH SEMESTER**  
**SUBJECT: ARCHITECTURAL DESIGN - IV**  
**(4S-A-1)**

**TEACHING SCHEDULE (2021-22)**

Theory	Marks	Practical / Sessional	Marks
College Assessment	--	College Assessment	200
University Examination	--	University Examination	--
Duration of University Theory Examination: -- Hours.			
Total Credits: T+P= 03			
<b>Reference Text Books</b>			
A	Time Saver Standards	Holmes John M.	
B	NBC	Themes and Hudson	
C	Neufert	Shankar Mulik	
<b>Other Text Books of Interest</b>			
1	Architecture: Form ,Space & Order –	Francis D. K. Ching	

**Studio / Lecture Details**

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture hours Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Introduction to project and data collection	I		3	22-02-2022		
Zoning and planning	I		6	24-02-2022 03-03-2022		
Planning	I		6	08-03-2022 10-03-2022		
Planning ,sections and elevation	I		6	22-03 -2022 24-03-2022		
Sections ,elevations and views	I		6	29-03-2022 31-03-2022		
Submission				31-03-2022		
Introduction to minor project and data collection	I		3	05-04-2022		

Planning	I	3	07-04-2022		
Planning ,sections , elevation and views	I	9	12-04-2022		
			19-04-2022		
			21-04-2022		
Submission			21-04-2022		
<b>Total Number of Lectures</b>		<b>42</b>			

Subject Incharge :  
Wadichar

Ar. Ashwin Durge

  
Ar. Mrugakshi

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FOURTH SEMESTER**  
**SUBJECT: BUILDING SERVICES -I**  
**(4S-A-7)**

**TEACHING SCHEDULE (2021-22)**

Theory	Marks	Practical / Sessional	Marks
College Assessment	--	College Assessment	20
University Examination	--	University Examination	--
Duration of University Theory Examination: -- Hours.			
<b>Reference Text Books</b>			
A	Water supply and sanitary engineering	Birdie; Rangwala.	
B	Water supply engineering	Punmia, B.C., Jain, A.K. and Jain.	
C	Waste water engineering	Punmia, B.C., Jain, A.K. and Jain.	
Other Text Books of Interest	D. Building services and equipment's	Prof. Ashok L. Chhatre. Translated and enlarged by: Prof. Ramesh G. Bhambhani	

**Lecture Details**

Topic/ Project	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
General idea of sources of water supply, qualitative & quantitative aspects, impurities, hard & soft water, standards for quality of water. Study of standards regarding water demand and consumption in different types of buildings,	I	B, D	03	10/02/2022 17/02/2022 24/02/2022	10/02/2022 17/02/2022 24/02/2022	03
Layout of water supply system and their types, connection from municipal supply, domestic water supply to building, Capacity Design Construction of suction and storage tank for a single tenement by computing demand for domestic use. Study of down take supply, water supply pipes and their sizes, jointing, fixing and laying. Various valves , fitting & fixers like taps , showers etc. Domestic water heaters and hot water supply system. Design of various spaces and building elements to anchor the services such as shafts , ducts. <b>Pre Mid Exam I Submission of Folio</b> (Mid 31/7-5/8:2017)	II	A, B & D	05	25/02/2022 03/03/2022 04/03/2022 10/03/2022 11/03/2022	25/02/2022 03/03/2022 04/03/2022 10/03/2022 11/03/2022	05

Principles of sanitation, water carriage system, collection of waste matter in buildings. Study of various sanitary fittings and fixtures like water closets, urinals, wash hand basins, sinks, flushing cisterns, Shower trays, Bath tubs, bidets, drinking water fountain etc Design of various spaces and building elements to anchor the services such as shafts, ducts.	III		01	30/03/2022	30/03/2022	01
Various Traps and their function, Sewage collection and Disposal system for a single tenement residence or bungalow. Various types of sanitary pipes and their jointing, fixing and laying, manholes, inspection chambers, intercepting chambers. Design of various spaces and building elements to anchor the services such as shafts, ducts, immediate surroundings of building etc.	IV		04	01/04/2022 06/04/2022 08/04/2022 13/04/2022	<del>1/04/2022</del> 06/04/2022 08/04/2022	03
Self cleaning velocity, invert levels, drains on sloping sites sewage disposal system in un-sewered localities- Complete study of Septic tank- Introduction, design principle, criteria, its working, utility & benefits. Its various types with respect to materials, capacity design and construction. A brief study of cesspools, Aqua privy, Soak pit, leeching pit for individual building.	V		03	15/04/2022 20/04/2022 22/04/2022 27/04/2022 (1 extra class)	<del>15/04/22</del> 20/04/22- 22/04/22 1 Extra class 14 <sup>th</sup> / April / 2022.	03.

Subject In-charge: Ar. Prerna. Chahande.





**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK  
DEPARTMENT OF ARCHITECTURE (2021-22)  
FOURTH SEMESTER (CBCS)**

**SUBJECT: ELECTIVE-B, SURVEYING & DOCUMENTATION (4S-A-4)**

**TEACHING SCHEDULE**

Theory	Marks	Practical	Marks
College Assessment	--	College Assessment	100
University Examination	--	University Examination	--
Duration of University Theory Examination: --- Hours			
Total Credits: P= 2		Teaching Load : 3 Hours/ Week	
<b>Reference Text Books</b>			
A	Guide The book of the Conservation	By Bernard Fielder (INTACH),	
B	Orion House, London to Conservation	Peter Marston	
C	Conservation of European Towns		

**SURVEYING AND DOCUMENTATION**

The student would be required to undergo Documentation of a historical building or a contemporary building of architectural merit, as the second part of the course work for the completion of the 3<sup>rd</sup> semester. This is to be done as a group work, but the group shall not comprise of more than four members .This documentation work would be submitted for valuation at the end of the semester.'

**PURPOSE:**

To develop understanding about the importance of historical and heritage buildings.

**INSTRUCTIONAL OBJECTIVES**

Knowledge about the various techniques of conservation in architecture and the development of the commitment to conserve old buildings of cultural importance

**INTRODUCTION**

Need for conservational activities, brief study in India and abroad, Role of architect in conservation program Origin and evolution of conservational programs, survey and studies required - methodology and implementation.

## • COMMUNITY PARTICIPATION

Social, cultural, historical and economical values of Conservational projects, involvement of community. Conflict and compatibility between conservation and development - the need to strike a balance

## CASE STUDIES OF CONSERVATION PROGRAMS

Case studies of conservation programs which are successful by government and non-governmental agencies.

## RULES AND REGULATIONS

Rules and regulation, administrative aspects, new concepts in conservation and documentation

## OBJECTIVE

The objective is to develop the necessary technical skills and competence required for the preparation of inventories of cultural resource for survey, analysis and recording. The module emphasizes the need for a methodical and systematic process for inventory as an essential basis for management and conservation plans. The section on Communication Techniques shall equip the students to competently communicate their thoughts and ideas in written, oral or visual form.

## CONTENTS

Understanding and formulating need for documenting any heritage site/precinct/settlement.

- Introduction to various methods of documentation.
- Standards of documentation.
- Difference between data and documentation.
- Appropriate documentation techniques of various scales and components of cultural resources.
- Application of documentation techniques.
- Communicating documentation including technical skills and competence.
- Photogrammetry and Cloud computing.

## Deliverables:

- Students shall acquire necessary skills towards documents and communication techniques.
- The assignments would include preparation of inventories, drawings and collection of data.
- Assignment will be in the form of reports, drawings and presentations. The students shall make
- Progressive presentations for reviews at various stages.

Sr.No	Topic	Proposed Week	Proposed Classes	Actual Classes	Remarks
1.	<b>Architectural Documentation : Project I</b> <ul style="list-style-type: none"> <li>• Introduction of Architectural Documentation</li> <li>• Historical background of Existing Building</li> <li>• Sketches and Photography</li> <li>• Interview /literature Study</li> <li>• Understanding of the architectural Style &amp; character, ingredients, common sense attributes and elements.</li> <li>• Construction Techniques and Materials</li> <li>• Measured Drawing of existing object (Building, Plot, Site plan, Elevation, Section, and View etc) using suitable scale.</li> <li>• Conclusion</li> <li>• Final Submission ( A2 Size sheets/Word Documents / PPT )</li> </ul>	( 10 week) ( 1 <sup>st</sup> week)	3	2/2, 2/12 120	
		( 2 <sup>nd</sup> & 3 <sup>rd</sup> week)	6	10	
		( 4 <sup>th</sup> to 8 <sup>th</sup> week)	18	18	
		( 9 <sup>th</sup> to 10 <sup>th</sup> week)	12	20	
	Site study		30		
	Total	10W	69Hours	168	

#### Reference Books.

1. Bernard Fielder (INTACH), Guide to Conservation
2. Conservation of European Towns
3. Peter Marston – The book of the Conservation – Orion House, London

#### Teacher In charge:

*Anjali V. Narad*  
12/2/22

Mrs. Anjali V. Narad

*Uday Ghavghave*

Mr. Uday Ghavghave

*Kalpana R. Thakare*

Mrs. Kalpana R. Thakare

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**STRUCTURAL DESIGN & SYSTEMS IV (4S-A-5)**  
**B.ARCH. FOURTH SEMESTER**

**TEACHING SCHEDULE (2021-22)**

Theory	Marks	Practical	Marks
College Assessment	40	College Assessment	-
University Examination	60	University Examination	-
Duration of University Theory Examination: 3 Hours			
Total Credits: 2.5 T			

**Course Objectives**

4S-A-5.1	To foster the understanding of basic principle of limit state design in RCC structural systems.
4S-A-5.2	To develop the understanding of characteristics of soil on structural behavior.

**Lecture Details**

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Overview of the Structural System in Architecture:</b> Study of different types of soils their characteristics, bearing capacities, Settlement of foundation. Study of structural elements like beams, columns & footings. Theory of Determinate and indeterminate structures – degree of indeterminacy.	I		1	21/02, 21/02	03/04	04
			1		03/04	
			1	26/02, 26/02	04/04	
			1		04/04	
<b>Deflection of beams:</b> Simply supported and cantilever beams by using Macaulay's method.	II		2	28/02, 28/02	05/04, 09/04	05
			2	07/3, 07/03	09/04,	
			2	12/03, 12/03	11/04 11/04	

<b>Concept of fixity : Independent fixed beams with different loadings - BM and SF diagrams. (By using First Principle method).</b>	III		2	21/03, 21/03,	13/04, 18/04	06
			2	28/03, 28/03	18/04, 19/04	
			1	08/10	23/04	
			1	04/04	23/04	
<b>Method of Moment distribution ( BM diagrams only) : a) For continuous beams (Up to three spans only, without settlement) b) For Single portal frames (Without sway moments)</b>	IV		1	04/04,	25/04	04
			1	09/04	30/04	
			1	09/04,	30/04	
			1	11/04	11/05	
			1	11/04,		
<b>Basic Principle of RCC:</b> a) Different Limit states, partial safety factors, permissible stresses Introduction to RCC design, characteristics of RCC, assumptions, Neutral axis; balanced, under & over reinforced sections b) Design of singly reinforced beams , doubly reinforced beams & Moment of resistance of T beam	V		1	23/10	11/05	03
			1	23/04	14/05	
			1	23/04	14/05	
<b>Total Number of Lectures</b>			24	24	22	22

Mr. L.C. Tibude



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FOURTH SEMESTER (CBCS)**  
**SUBJECT: HISTORY OF ARCHITECTURE III (4S-A-6)**  
**TEACHING SCHEDULE (2021-22)**

Theory	Marks	Practical / Sessional	Marks
College Assessment	--	College Assessment	100
University Examination	--	University Examination	--
Duration of University Theory Examination:-- .			
Total Credits: L+T= 2.5			
<b>Reference Text Books</b>			
A	Architecture in India Since 1990 pictorial	Mehrotra, R. (2011)	
B	History of Modern Architecture 2 Vols. reprint, MIT Press	Benevolo, L. (1977).	
C	Urban Pattern	Gallion	
D	Architecture: Form ,Space & Order –	Francis D. K. Ching	
E	History of Architecture	Sir Banister Fletcher	
F	History of Architecture	Spiro Kostof	
G	History of Architecture	Christopher Tadgell	
H	Prehistoric & Historic Architecture	Murthy	
I	Modern and Post Modern Architecture	Murthy	
J	The Story of Post-Modernism. London: Wiley and Sons.	Jenks, C. (2007).	
K	Islamic Architecture in India. New Delhi: CBS Publications	Grover, S. (2002).	
<b>Other Text Books of Interest</b>			
I	Rendering with Pen and Ink	R. W. Gill	

**Studio / Lecture Details (2021-22)**

Topic/ Project	Unit No.	Refer. Books	No. of Studio hours Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Objectives:</b> To provide an understanding of the implications of the Mughal and Colonial rules in India and its Architecture.						
<b>Unit I:</b> Mughal architecture in India, Forts and Cities during Mughal dynasty.	I	A,B	05	1-2W		
<b>Unit II:</b> Architectural contribution of Akbar, and Shahjahan.	II	A,C	05	2-4W		
<b>Unit III:</b> Provincial Architecture in India: Bengal, Malva, Mandu, Bijapur, Punjab, Kashmir, Gujarat.	III	B,C	05	4-5W		
<b>Pre Mid Exam I Submission of Folio and its Assessment</b>	--	--	--			
<b>Mid I Exam</b>						
<b>Unit IV:</b> Colonial and Post Independence Indian Architecture: Colonial architecture of Goa, Pondicherry and Bengal. Lutyens Delhi. City planning of Chandigarh.	IV	B,C	05	6-7W		
<b>Unit V:</b> Indian Master Architects, their philosophies and works.	V		10	7-10W		
<b>Final Folio Submission and Viva</b>	-					
<b>Total Number of Lectures (10 W)</b>			30	10W		

**Exercises:**

1. Understanding 2. Analysis, 3. Interpretation, 4. Synthesis, and 5. Transform of historical structures, in the form of small exercise and assignments.
2. The course should culminate in a term paper, documentation or design interpretation and transformation.

**Sessional work:-** Plates, sketches, & tests

Subject Incharge : Mrs. Kalpana R Thakare

Ms. Ruchita Bhagat

Ms. Bhavana Raut

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIFTH SEMESTER (CBCS)**  
**ARCHITECTURAL DESIGN – V (5S-A-1)**

**SYLLABUS**

**Objective-** The focus will be on exploration and application of various structural systems, building byelaws and building with multiple users.

The design process to deal with following aspects:

- Building byelaws and site surrounding.
- Structural system and exploration in material.
- Services in multistoried buildings

**Sessional Work-**

Design of multiple dwelling units, apartment blocks, hostels or other multistoried buildings.

**TEACHING SCHEDULE (2022-2023)**


Theory + Practical		Marks	Practical		Marks
College Assessment		100	College Assessment		
University Examination		100	University Examination		
Duration Of University Practical Examination :					
Total Load per week: 5	L = 1	T =	D =	S/P = 4	
Total Credits: 7	L = 1	T =	D =	S/P = 6	
<b>Reference Text Books</b>					
A.	Neufert	Blackwell Publishing			
B.	Unified Development Control Regulation 2000 for Nagpur City.	Dept. of UD, Govt. of Maharashtra			
C.	National Building Code	New Delhi : Bureau of Indian Standards			
D.	Time Saver Standards for Housing and Residential Development	Joseph De Chiara Julius Panero Martin Zelnik			
E.					
F.					




KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK  
 DEPARTMENT OF ARCHITECTURE  
 B.ARCH. FIFTH SEMESTER (CBCS)  
 ARCHITECTURAL DESIGN - V (5S-A-1)

<u>Studio Details</u>				
Topic	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
1. Recapitulation of 4 <sup>th</sup> semester design	36	18/07/2022 To 23/07/2022		
2. Major Project -Apartment	42	28/07/2022 04/8/2022 11/08/2022 13/08/2022 18/08/2022 25/08/2022 27/08/2022 08/09/2022 10/09/2022 15/09/2022 22/09/2022 24/09/2022		
3. Minor Project – Library/Museum/Community hall	12	29/09/2022 06/10/2022 08/10/2022 13/10/2022		
TOTAL	66			

Subject Incharge :

  
 Ar. Babita Bijwe

  
 Ar. Mrugakshi Wadichar

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIFTH SEMESTER (CBCS)**  
**ARCHITECTURAL DESIGN - V (5S-A-1)**

<u>Studio Details</u>				
Topic	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
1. Recapitulation of 4 <sup>th</sup> semester design	18	18/07/2022 To 23/07/2022	18/07/2022 19/07/2022 20/07/2022 21/07/2022 22/07/2022 23/07/2022	18
2. Major Project -Apartment	36	28/07/2022 04/-8/2022 11/08/2022 13/08/2022 18/08/2022 25/08/2022 27/08/2022 08/09/2022 10/09/2022 15/09/2022 22/09/2022 24/09/2022	28/07/2022 11/08/2022 13/08/2022 18/08/2022 25/08/2022 27/08/2022 07/09/2022 08/09/2022 10/09/2022 21/09/2022 23/09/2022 24/09/2022 28/09/2022 17/11/2022 24/11/2022 26/11/2022 01/12/2022	51
3. Minor Project – Library/Museum/Community hall	12	29/09/2022 06/10/2022 08/10/2022 13/10/2022	06/10/2022 08/10/2022 12/10/2022 13/10/2022 03/11/2022 10/11/2022	18
<b>TOTAL</b>	<b>66</b>			<b>87</b>

Subject Incharge :

  
Ar. Babita Bijwe

  
Ar. Mrugakshi Wadichar

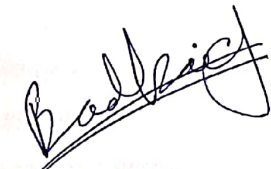
Architectural Design – V

Academic Year 2022-2023

Studio Details

Sr.No.	Weekly Assignment	Date	Hours	Submission Date	Outcome
1. Week 1	1) Recapitulation of sheets	21/07/22 23/07/22	6 Hrs		
2. Week 2	1) Data Collection 2) Site analysis	28/07/22	3 Hrs		
3. Week 3	1) Zoning & Concept	4/08/22	3 Hrs		
4. Week 4	1) Planning	11/08/22 13/08/22	6 Hrs		
5. Week 5	1) Planning	18/08/22	3 Hrs		
6. Week 6	1) Structural Details 2) Construction Details	25/08/22 27/08/22	6 Hrs		
<b>FIRST MID SESSIONAL EXAM</b> Probable date : 28 <sup>th</sup> August 2022 to 3 <sup>rd</sup> September 2022					
7. Week 7	1) Structural Details 2) Construction Details	8/09/22 10/09/22	6 Hrs		
8. Week 8	1) Site plan 2) Section	15/09/22	3 Hrs		
9. Week 9	1) Elevation 2) Views	22/09/22 24/09/22	6 Hrs		
10. Week 10	1) Data Collection 2) Zoning & Concept	29/09/22	3 Hrs		
11. Week 11	1) Planning 2) Site plan	6/10/22 8/10/22	6 Hrs		
12. Week 12	1) Section 2) Elevation 3) Views	13/10/22	3 Hrs		
<b>SECOND MID SESSIONAL EXAM</b> Probable date : 17 <sup>th</sup> October 2022 to 22 <sup>nd</sup> October 2022					
<b>FINAL FOLD SUBMISSION</b> DATE : 05/12/2022 <b>FINAL MODEL SUBMISSION</b> DATE : 07/12/2022					

Subject Incharge :

  
Ar. Babita Bijwe

  
Ar. Mrugakshi Wadichar

## Architectural Design – V

Academic Year 2022-2023

### Design Brief

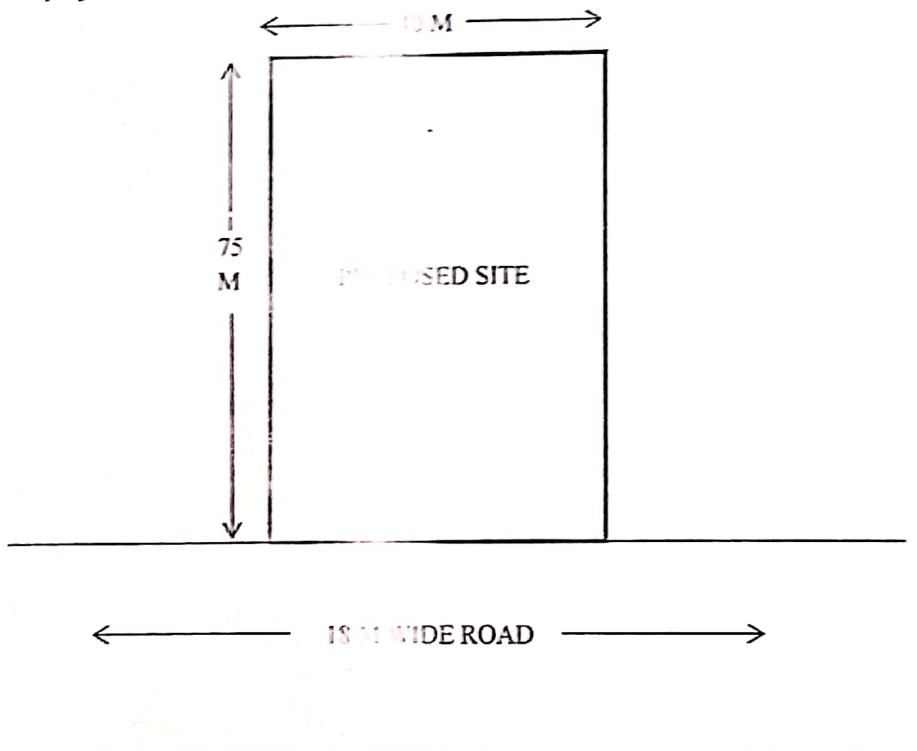
Design a Apartment for WCL Company Workers Quarters having 3BHK , 2BHK , 1BHK Tenaments with carpet area of  $75\text{ m}^2 - 85\text{ m}^2$  ,  $50\text{ m}^2 - 75\text{ m}^2$  and  $35\text{ m}^2 - 40\text{ m}^2$  respectively . Total no. of dwelling unit should be 40 out of which 10 HIG DU- 3BHK, 20 MIG DU - 2BHK , 10 MIG DU – 1BHK .

#### Given Data :

- Site Area =  $3000\text{ m}^2$
- F.S.I = 1.5
- Site location : Narsala ,Nagpur

#### Amenities :

- Lift
- Power backup
- Fire fighting
- Security cabin
- Society office
- Parking
- Landscape
- Children play area



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH.FIFTH SEMESTER (CBCS)**  
**ALLIED DESIGN STUDIO- V(5S-A-2)**

**SYLLABUS**

**Objective-** The focus will be on application of various material in model making, building byelaws and, all technical aspects in design.

The design process to deal with following aspects:

- Building byelaws and site surrounding.
- exploration in material.

**Sessional Work-**

Apartment Blocks, Hostels or other Multistoried Buildings.

**TEACHING SCHEDULE (2022-2023)**

Theory + Practical		Marks	Practical	Marks
College Assessment		100	College Assessment	
University Examination			University Examination	
Duration Of University Practical Examination : 100				
Total Load per week:				
Total Credits: 4				
<b>Reference Text Books</b>				
A.	Neufert		Blackwell Publishing	
B.	Unified Development Control Regulation 2000 for Nagpur City.		Dept. of UD, Govt. of Maharashtra	
C.	National Building Code		New Delhi : Bureau of Indian Standards	
D.	Time Saver Standards for Housing and Residential Development		Joseph De Chiara Julius Panero Martin Zelnik	
E.				
F.				

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIFTH SEMESTER (CBCS)**  
**ALLIED DESIGN STUDIO - V (5S-A-2)**

<u>Studio Details</u>				
Topic	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
1. Recapitulation of 4 <sup>th</sup> semester design	15	18/07/2022 To 10/08/2022		12
2. Major Project -Apartment	24	17/08/2022 24/-08/2022 07-08-2022 14-08-2022 21-08-2022 28-08-2022 12-09-2022 19-09-2022		15
3. Minor Project – Library/Museum/Community hall	12	02/10/2022 16/10/2022 23/10/2022 30/10/2022		06
<b>TOTAL</b>	<b>51</b>			<b>33</b>

Staff Incharge - Ar. Anant Raole

Ar. Ruchita Bhagat

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIFTH SEMESTER (CBCS)**  
**ALLIED DESIGN STUDIO - V (5S-A-2)**

<u>Studio Details</u>				
Topic	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
1. Recapitulation of 4 <sup>th</sup> semester design	15	18/07/2022 To 10/08/2022	18/07/2022 27/07/2022 03/08/2022 10/08/2022	12
2. Major Project -Apartment	24	17/08/2022 24/08/2022 07-08-2022 14-08-2022 21-08-2022 28-08-2022 12-09-2022 19-09-2022	17/08/2022 24/08/2022 07/09/2022 21/09/2022 28/09/2022	15
3. Minor Project – Library/Museum/Community hall	12	02/10/2022 16/10/2022 23/10/2022 30/10/2022	05/10/2022 12/10/2022	06
<b>TOTAL</b>	<b>51</b>			<b>33</b>

Staff Incharge - Ar. Anant Raole

Ar. Ruchita Bhagat



**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	00	College Assessment	50
University Examination	00	University Examination	100
Duration of University Theory Examination: 04 Hours			
Total Credits: L + P = 03			
<b>Reference Text Books</b>			
A.	Maintenance and Repairs of Buildings.	Guha, P. K. (2011).	
B.	Repair and Renovation of Modern Buildings	Chandler, I. (1992).	
C.	A Manual of Maintenance Engineering	Nayak, B. S. (2013)	
D.	Repair and Renovation of Modern Buildings	Mitchel "	
E.	Advanced building construction	V S Foster	

**Lecture Details**

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Advance RCC foundation, Types such as Strip Foundation, combined footings, Eccentric Footing. Foundation system for floating column on cantilever beam. Types of Raft foundations. General study of Steel Grillage foundation, Machine Foundation, Cellular Foundation, Cassion Foundations. Design Principles and Considerations for Pile Foundation, its types. Piles in Timber, Steel and R.C.C. both precast and Cast-in-situ, Under rimmed piles, pile caps.	1	A,B,C,D,E	12	01/08/22, 08/08/22, 15/08/22	25/07, 1/08, ,	07
Design Principles and considerations of Advanced R.C.C. Structures - such as Grid / Coffered Slabs - Various types - Study of reinforcement detailing i) at crossing of beams ii) Grid beams with peripheral beams and columns. Flat slabs, Flat-plate slabs - all types. Lift slab method of construction.	2	A,3B,C,D,E	09	22/8/22, 29/08/22, 05/09/22	8/08, 22/08, 30/08,	10
Study of various defects in building - causes and remedies / precautions. Brief study about various Non-Destructive Tests - Concepts, purposes, such as Rebound Test, Penetration Test and Pull out	3	A,B,C,D,E	06	12/09/22, 19/09/22	7/09,	03



Techniques, Surface Hardness Test. Study of Building Structure Rehabilitation. Principles / Concepts, Causes / reasons, Various methods such as Grouting, Guniting, Jacketing - construction principles, techniques.						
Study of Construction Chemicals / Admixtures, Need, purpose, types. A General study - with emphasis on commonly used chemicals / admixtures, repair solutions. Water proofing aspect of building for different elements, avoiding dampness.	4	A,B,C,D,E	03	26/09/22, 03/10/22	, 19/09, 20/09, .	07
Additions and Alteration in Existing Building. Introduction, Purpose / necessity - Design and Structural principles, techniques of modifications / alternations, precautions, essential studies, data and information required, its collection and analysis. Design, detailing and construction drawings providing solutions for various building elements. Shoring, underpinning and scaffolding for building work.	5	A,B,C,D,E	12	10/10/22	26/09, ,10/10, 11/10,	11
<b>Total Number of Lectures</b>			43 hrs			45 hrs

Ar. Abhilasha Dongre


  
SUBJECT IN-CHARGE

### TEACHING SCHEDULE (2022-23)

<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	00	College Assessment	50
University Examination	00	University Examination	50
Duration of University Theory Examination: 04 Hours			
Total Credits: L + P = 03			
<b>Reference Text Books</b>			
1	Unified Development Control Regulation 2000 for Nagpur City.	Dept. of UD, Govt. of Maharashtra	
2	Rendering in Pen & Ink	By Arthur L. Guptill	

#### Lecture Details

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Study of building bye-laws, building regulations, requirements of parts of Buildings etc, as per the National Building Code.	1	Unified Development Control Regulation 2000 for Nagpur City.	03	22/08,	22/08,	03
Understanding the concept of Ground coverage, Built-up area, FSI/ FAR etc.;	2	Unified Development Control Regulation 2000 for Nagpur City.	03	22/08,	22/08,	03
Preparations of submission drawings.	3		04	29/08,	29/08,	04
Preparation of working drawings for the same building. The set of drawings to be prepared shall include Foundation/center line plan with plinth layout (considering Load Bearing as well as R.C.C. Frame structure type), All Floor Plans, Lintel level plan, Slab level plan, Terrace Plan showing roof drainage arrangement, Sections, All elevations for R.C.C. frame structure only	4		21	2/9, 6/9, 23/9, 26/9, 7/10, 10/10,	2/9, 6/9, 23/9, 26/9, 7/10, 10/10,	21
<b>Total Number of Lectures</b>			<b>31</b>			<b>31</b>

  
**Subject In-Charge**  
 Ar. Abhilasha Dongre

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**STRUCTURAL DESIGN AND SYSTEM - V (5S – A- 5)**  
**B.ARCH. FIFTH SEMESTER (C.B.C.S)**  
**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>		<b>Marks</b>
College Assessment		40
University Examination		60
Duration of University Theory Examination: 3 Hours		
Total Credits: 3T		
<b>Reference Text Books</b>		
A	Structural Design & Systems - V	S. S. Bhavikatti
B	Structural Design & Systems - V	B. C. Punmia
C	Structural Design & Systems - V	P. C. Varghese
D	Structural Design & Systems - V	S. Ramamrutham
E	Structural Design & Systems - V	S. Ramachandra

**COURSE OUTCOMES**

The Students will be able to -

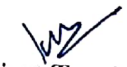
1. Understand the behavior and failure modes different concrete members.
2. Analyze and apply the results in designing various concrete member of structure.
3. Apply the knowledge & skills in practical problems.
4. Understand the relevant software and use the same in analysis & design of concrete members.

**Details of Lectures**

19.07.2022 Onwards

Sr. No.	Topic	Unit No	Ref. Book	No of Lecture Planned	Probable Date of Teaching	Actual Date of Teaching	No of Lecture Taken	C.O
1	<b>Overview of the Structural System in Architecture:</b> Study of roof covering like flat slab, vaults and domes, folded plates, Shell roofs & Stair cases, with suitable examples from historical and contemporary architecture Study of IS 875 Part I, Part II and Part III and Study of IS 456 -2000	I	A,B	03	19/07/2022 19/07/2022 22/07/2022			501.1

2	<b>Basic Concepts and design of different types of slab:</b> Design of one way & two way slabs. Conceptual study of continuous slab & cantilevered slab showing the reinforcement details.	II	B,C	10	26/07/2022 26/07/2022 29/07/2022 02/08/2022 02/08/2022 05/08/2022 12/08/2022 19/08/2022 23/08/2022 23/08/2022			501.2
3	<b>Design of RCC section in compression (Column):</b> Short column, Limitations of long columns and column subjected to Uniaxial bending (by using Interaction curve chart)	III	C,D	08	26/08/2022 30/08/2022 30/08/2022 02/09/2022 06/09/2022 06/09/2022 20/09/2022			501.3
4	<b>Design of Isolated Footing:</b> Design of RCC Isolated Rectangular & square footing.	IV	D,E	07	20/09/2022 23/09/2022 27/09/2022 27/09/2022 30/09/2022 04/10/2022 04/10/2022			501.4
5	<b>Basic requirement of Earthquake resistant structures:</b> Study related to Plan irregularity & Vertical irregularity (Study of IS 1893 Part I -2016)	V	F	03	07/10/2022 11/10/2022 11/10/2022			501.5
		<b>Total</b>		<b>32</b>				

  
 Subject Teacher  
 Ms. Kavita S. Kene (CED)

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**STRUCTURAL DESIGN AND SYSTEM - V (5S – A- 5)**  
**B.ARCH. FIFTH SEMESTER (C.B.C.S)**  
**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>	<b>Marks</b>
College Assessment	40
University Examination	60
Duration of University Theory Examination: 3 Hours	
Total Credits: 3T	
<b>Reference Text Books</b>	
A	Structural Design & Systems - V S. S. Bhavikatti
B	Structural Design & Systems - V B. C. Punmia
C	Structural Design & Systems - V P. C. Varghese
D	Structural Design & Systems - V S. Ramamrutham
E	Structural Design & Systems - V S. Ramachandra

**COURSE OUTCOMES**

The Students will be able to -

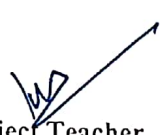
1. Understand the behavior and failure modes different concrete members.
2. Analyze and apply the results in designing various concrete member of structure.
3. Apply the knowledge & skills in practical problems.
4. Understand the relevant software and use the same in analysis & design of concrete members.

**Details of Lectures**

19.07.2022 Onwards

Sr. No.	Topic	Unit No	Ref. Book	No of Lecture Planned	Probable Date of Teaching	Actual Date of Teaching	No of Lecture Taken	C.O
1	<b>Overview of the Structural System in Architecture:</b> Study of roof covering like flat slab, vaults and domes, folded plates, Shell roofs & Stair cases, with suitable examples from historical and contemporary architecture Study of IS 875 Part I, Part II and Part III and Study of IS 456 -2000	I	A,B	03	19/07/2022 19/07/2022 22/07/2022	19/07/2022 19/07/2022 22/07/2022	03	501.1

2	<b>Basic Concepts and design of different types of slab:</b> Design of one way & two way slabs. Conceptual study of continuous slab & cantilevered slab showing the reinforcement details.	II	B,C	10	26/07/2022 26/07/2022 29/07/2022 02/08/2022 02/08/2022 05/08/2022 12/08/2022 19/08/2022 23/08/2022 23/08/2022	26/07/2022 26/07/2022 29/07/2022 02/08/2022 02/08/2022 23/08/2022 23/08/2022	07	501.2
3	<b>Design of RCC section in compression (Column):</b> Short column, Limitations of long columns and column subjected to Uniaxial bending (by using Interaction curve chart)	III	C,D	08	26/08/2022 30/08/2022 30/08/2022 02/09/2022 06/09/2022 06/09/2022 09/09/2022 20/09/2022	26/08/2022 30/08/2022 30/08/2022 20/09/2022 20/09/2022	05	501.3
4	<b>Design of Isolated Footing:</b> Design of RCC Isolated Rectangular & square footing.	IV	D,E	07	20/09/2022 23/09/2022 27/09/2022 27/09/2022 30/09/2022 04/10/2022 04/10/2022	23/09/2022 27/09/2022 27/09/2022 07/10/2022	04	501.4
5	<b>Basic requirement of Earthquake resistant structures:</b> Study related to Plan irregularity & Vertical irregularity (Study of IS 1893Part I -2016)	V	F	03	07/10/2022 11/10/2022 11/10/2022	11/10/2022 11/10/2022 11/10/2022	03	501.5
<b>Total</b>				32			22	

  
 Subject Teacher  
 Ms. Kavita S. Kene (CED)

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIFTH SEMESTER**  
**SUBJECT: BUILDING SERVICES -II**  
**(5S-A-7)**

**TEACHING SCHEDULE (2022-23)**

Theory	Marks	Practical / Sessional	Marks
College Assessment	40	College Assessment	--
University Examination	60	University Examination	--
100 (60 + 40), Min. Pass Marks: 50			
Duration of University Theory Examination: -- Hours.			
<b>Reference Text Books</b>			
A	Water supply and sanitary engineering	Birdie; Rangwala., Punmia, B. C., Jain, A. K. and Jain, A.K. (1998)	
B	Code of Practice for Electrical Wiring Installations IS-732.	Bureau of Indian Standards. (2005)..	
C	Electrical Engineering Hand Book	Abnwo, F. and Others	
Other Text Books of Interest	D. Building services and equipment's	Prof. Ashok L. Chhatre. Translated and enlarged by: Prof. Ramesh G. Bhambhani	

**Lecture Details**

Topic/ Project	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Sewage collection and disposal for large campuses, complexes, high-rise buildings etc, Sewage collection and disposal for large campuses, complexes, high-rise buildings etc, STP system- comprehensive study of conventional sewage treatment plant, understanding, its principles, systems of treatment, sequence, possible space requirements, location criteria, application, merits and de-merits. STP system-comprehensive study of conventional sewage treatment plant, understanding, its principles, systems of treatment, sequence, possible space requirements, location criteria, application, merits and de-merits.	I	A, D	05	26/07/22 02/08/22 13/08/22 16/08/22 23/08/22		
Hot water supply in high-rise buildings, solar water heaters and their systematic layouts, various methods/ systems of hot water supply, their thermal insulation and schematic pipe line network in a building. Hot water supply in high-rise buildings, solar water heaters and their systematic layouts, various methods/ systems of hot water supply, their thermal insulation and schematic pipe line network in a building.	II	A & D	02	30/08/22 06/09/22		

Pre-Mid Exam I Assignment Submission before (Mid 12/9-17/9/2022)						
<p><u>Brief introduction to Electricity</u> generation and distribution from Plant to Substation. Various wiring systems, electric fittings and appliances, Electrical Control and safety devices such as Switches, Fuse, Circuit breakers, (Drafting Sheets) Earthing-conventional and modern techniques, lightning conductor, etc. Calculation and distribution of loads.</p> <p>Detailed layout of electrical services in a single tenement residence or bungalow. Design of various building elements and their locations to anchor the services such as walls, Floor and their features, ceiling, Shafts or ducts etc.</p>	III	C, D	06	06/09/22 10/09/22  20/09/22 24/09/22 27/09/22 08/10/22		
<p><u>Storm Water-</u> Introduction, necessity, utility, importance, collection, Drainage- Principles, various methods/ systems, planning and application.</p>	IV	D	01	10/10/22		
<p><u>Refuse disposal-</u> Sources, types, collection, storage and transport, provisions for refuse disposal individual building level, refuse chutes- introduction, principle, design, construction and locational aspects. Function, utility and application, its limitation, merits and demerits.</p>	V	D	02	11/10/22 14/10/22		

*Prerna*

**Subject In-charge: Ar. Prerna. Chahande.**



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIFTH SEMESTER**  
**SUBJECT: BUILDING SERVICES -II**  
**(5S-A-7)**

**TEACHING SCHEDULE (2022-23)**

Theory	Marks	Practical / Sessional	Marks
College Assessment	40	College Assessment	--
University Examination	60	University Examination	--
100 (60 + 40), Min. Pass Marks: 50			
Duration of University Theory Examination: -- Hours.			
<b>Reference Text Books</b>			
A	Water supply and sanitary engineering	Birdie; Rangwala., Punmia, B. C., Jain, A. K. and Jain, A.K. (1998)	
B	Code of Practice for Electrical Wiring Installations IS-732.	Bureau of Indian Standards. (2005)..	
C	Electrical Engineering Hand Book	Abnws, F. and Others	
Other Text Books of Interest	D. Building services and equipment's	Prof. Ashok L. Chhatre. Translated and enlarged by: Prof. Ramesh G. Bhambhani	

**Lecture Details**

Topic/ Project	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Sewage collection and disposal for large campuses, complexes, high-rise buildings etc, Sewage collection and disposal for large campuses, complexes, high-rise buildings etc, STP system- comprehensive study of conventional sewage treatment plant, understanding, its principles, systems of treatment, sequence, possible space requirements, location criteria, application, merits and de-merits. STP system- comprehensive study of conventional sewage treatment plant, understanding, its principles, systems of treatment, sequence, possible space requirements, location criteria, application, merits and de-merits.	I	A, D	05	26/07/22 02/08/22 13/08/22 16/08/22 23/08/22	26/07/22 02/08/22 13/08/22 23/08/22 Extra class 30/11/22 01/12/22	06
Hot water supply in high-rise buildings, solar water heaters and their systematic layouts, various methods/ systems of hot water supply, their thermal insulation and schematic pipe line network in a building. Hot water supply in high-rise buildings, solar water heaters and their systematic layouts, various methods/ systems of hot water supply, their thermal insulation and schematic pipe line network in a building.	II	A & D	02	30/08/22 06/09/22	30/08/22 06/09/22 Extra class 02/12/22	03

<b>Pre-Mid Exam I Assignment Submission before (Mid 12/9-17/9/2022)</b>				09/09/22		
<p><b>Brief introduction to Electricity generation and distribution from Plant to Substation.</b>            Various wiring systems, electric fittings and appliances, Electrical Control and safety devices such as Switches, Fuse, Circuit breakers,(Drafting Sheets) Earthing-conventional and modern techniques, lightning conductor, etc. Calculation and distribution of loads.</p> <p>Detailed layout of electrical services in a single tenement residence or bungalow.            Design of various building elements and their locations to anchor the services such as walls, Floor and their features, ceiling, Shafts or ducts etc.</p>	III	C, D	06	06/09/22 10/09/22  20/09/22 24/09/22 27/09/22 08/10/22	06/09/22 10/09/22  20/09/22 24/09/22 27/09/22 08/10/22  Extra class 06/12/22	07
<b>Storm Water-</b> Introduction, necessity, utility, importance, collection, Drainage- Principles, various methods/ systems, planning and application.	IV	D	01	10/10/22	10/10/22	01
<b>Refuse disposal-</b> Sources, types, collection, storage and transport, provisions for refuse disposal individual building level, refuse chutes- introduction, principle, design, construction and locational aspects. Function, utility and application, its limitation, merits and demerits.	V	D	02	11/10/22 14/10/22	11/10/22 14/10/22	02

*Prerna*

**Subject In-charge: Ar. Prerna. Chahande.**

# Vernacular Architecture

## TEACHING SCHEDULE (2022-23)

Theory	Marks	Practical / Sessional	Marks
College Assessment	--	College Assessment	100
University Examination	--	University Examination	--
Duration of University Theory Examination:-- Hours.			
Total Credits: 3.5			
<b>Reference Text Books</b>			
A	Illustrate Handbook Of Vernacular Architecture.Castle Rock : Faber & Faber.	Brunskill, R. W	
B	Vistara, The Architecture Of India	Carmen, K.	
C	Traditional Building Of India	Cooper & Dawson Thames & Hudson	
D	Mud Architecture Of The India Desert,Ahmadabad – Aadi Centre.	Jain,K & Jain, M.	
E	Encyclopedia Of Vernacular Architecture.	Oliver, P.	
<b>Other Text Books of Interest</b>			
1			
2			

Subject Incharge : Ms. Mrugakshi Wadichar

  
Ms. Ruchita Bhagat

## Teaching Schedule

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Introduction to Vernacular Architecture</b> : Definition and Theories, Categories, Contextual Responsiveness with respect to Climate, Geographical , Anthropological And Cultural Influence.	I	A,B,C,D,E	03 03	27-07-2022 03-08-2022		
<b>Regional Variations In Built Form</b> : Tribal Architecture : Settlement Pattern, Dwelling Typology, Symbolism, Typical Features, Construction Materials And Techniques In North Of Maharashtra – Korku Tribe, South-East Of Maharashtra , - Gond Tribe, South-West Of Maharashtra – Kolam Tribe.	III	A,B,C,D,E	12 12 03 03	06-08-2022 07-08-2022 10-08-2022 17-08-2022		
<b>Regional Variation In Built Form:</b> Traditional Architecture : Settlement Pattern, Dwelling Typology,Symbolism, Typical Features, Construction Materials,And Techniques In Leh Laddakh, Kutchha, Coastal Telangana, Western Ghats And North East Region.	IV	A,B,C,D,E	03 03 03	24-08-2022 07-09-2022 14-09-2022		
<b>Environment And Materials</b> : Local Building Materials, Skill set, Built Form And Elements, Construction Techniques And Environmental Performance	II	A,B,C,D,E	03 03 03 03	21-09-2022 28-09-2022 12-10-2022 19-10-2022		

Living Style, Beliefs, Festivals And Spaces : Space Activity Relationship, Living Style And Beliefs Reflected On Space Usage And Design With Respect To Central Indian Rural Agrarian Society. Indian Festivals And Built Habitat.	V	A,B,C,D,E	03	02-11-2022		
total			60			

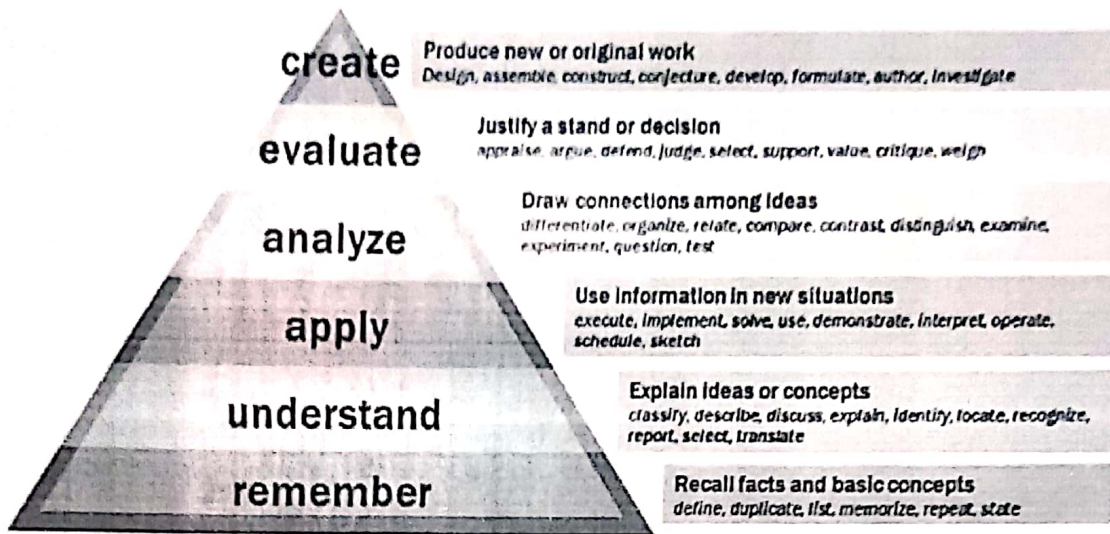
*Ms. Mrugakshi M. Wadichar*

Subject Incharge : Ms. Mrugakshi M. Wadichar

*Ms. Ruchita L. Bhagat*

Ms. Ruchita L. Bhagat

## Course Outcomes (CO) Blooms Taxonomy



## Program Outcomes (PO) Blooms Taxonomy

1. **Knowledge** -Understanding about role of various knowledge domains such as humanities, technology, and environment in design of built environment.
2. **Principles & Theory**- Knowledge of principles of architecture & theoretical knowledge and its application in design.
3. **Creativity** - Creative and design thinking ability.
4. **Practice** - Ability to understand real life situation of Architectural Practice and to work with ethical and professional responsibilities.
5. **Collaborative Working** -Ability to communicate effectively and work in interdisciplinary groups.
6. **Inclusivity** -Sensitivity in design for inclusivity, equity, environment, diverse cultures, and heritage.
7. **Technological Knowhow**-Ability to review, comprehend and report technological developments in the profession of architecture and construction.
8. **Ability to choose Area of Specialisation or Practise**- Able to judge one's area of interest and accordingly choose the field of practice.

## Teaching Schedule

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Introduction to Vernacular Architecture</b> : Definition and Theories, Categories, Contextual Responsiveness with respect to Climate. Geographical Anthropological And Cultural Influence.	I	A.B.C.D.E	03	27-07-2022	27-07-2022	03
			03	03-08-2022	03-08-2022	03
<b>Regional Variations In Built Form</b> : Tribal Architecture : Settlement Pattern, Dwelling Typology, Symbolism, Typical Features, Construction Materials And Techniques In North Of Maharashtra - Korku Tribe, South-East Of Maharashtra , - Gond Tribe, South-West Of Maharashtra - Kolam Tribe.	III	A.B.C.D.E	12	06-08-2022	06-08-2022	12
			12	07-08-2022	07-08-2022	12
			03	10-08-2022	10-08-2022	03
			03	17-08-2022	17-08-2022	03
<b>Regional Variation In Built Form:</b> Traditional Architecture : Settlement Pattern, Dwelling Typology, Symbolism, Typical Features, Construction Materials, And Techniques In Leh Laddakh, Kutchha, Coastal Telangana, Western Ghats And North East Region.	IV	A.B.C.D.E	03	24-08-2022	24-08-2022	03
			03	07-09-2022	26-08-2022	03
			03	14-09-2022		
<b>Environment And Materials :</b> Local Building Materials, Skill set, Built Form And Elements, Construction Techniques And Environmental Performance	II	A.B.C.D.E	03	21-09-2022	21-09-2022	03
			03	28-09-2022	08-10-2022	01
			03	12-10-2022		
			03	19-10-2022		

Living Style, Beliefs, Festivals And Spaces : Space Activity Relationship, Living Style And Beliefs Reflected On Space Usage And Design With Respect To Central Indian Rural Agrarian Society, Indian Festivals And Built Habitat.	V	A,B,C,D,E	03	02-11-2022		
total			60			46

Subject Incharge : Ms. Mrugakshi M. Wadichar

Ms. Ruchita L.Bhagat



## TEACHING SCHEDULE (2022-23)

Theory	Marks	Practical / Sessional	Marks
College Assessment	--	College Assessment	50
University Examination	--	University Examination	--
Sessional Exam - Practical			
Total Credits: 3			
<b>Reference Text Books</b>			
A	Advanced Spatial Analysis; The Casa Book Of GIS,	P.Longley , M Batty - 2003	
B	Advanced Spatial Statistics ; Special Topics in the Exploration Of Quantitative Spatial Data Series.	DA Griffith - 2012	
<b>Other Text Books of Interest</b>			
1			
2			

Subject Incharge : Mrs. Anjali .V. Narad

Ms. Ruchita.L. Bhagat

## STUDIO SCHEDULE

Topic/ Project	Unit No.	Refer . Books	No. of Studio /Lecture Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
<b>Unit I: Introduction</b> 1. Complexity 2. Functionality 3. Geography	I	A,B	01 01 01	29-07-2022 05-08-2022 12-08-2022		
<b>Unit II : Analysis based on location</b> 1. Geography , 2. Space 3. Location	II	A,B	01 01 01	19-08-2022 20-08-2022 2-09-2022		
<b>Unit III : Analysis based on distance</b> 1. Built Environment , 2. Spatial Analysis 3. Transformation 4. Tolerance 5. Buffer 6. Density Estimate.	III	A,B	01 01 01 01 01	9-09-2022 16-09-2022 23-09-2022 30-09-2022 7-10-2022		
<b>Unit IV</b> Qualitative and quantitative research methodology.	IV	A,B	01 01	14-10-2022 21-10-2022		

Subject Incharge : Mrs. Anjali .V. Narad

Ms. Ruchita.L. Bhagat

## STUDIO SCHEDULE

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken	Exercise
<b>Unit I: Introduction</b> 1. Complexity 2. Functionality 3. Geography	I	A,B	03 03 03	29-07-2022 05-08-2022 12-08-2022	29-07-2022 05-08-2022 06-08-2022 07-08-2022 12-08-2022	03 03 -- -- 03	2 Days Site Visit at Lekha (Mendha) - Gadchiroli
<b>Unit II : Analysis based on location</b> 1. Geography , 2. Space 3. Location	II	A,B	03 03 03	19-08-2022 20-08-2022 2-09-2022	19-08-2022 20-08-2022 26-08-2022 2-09-2022	03 03 03 03	
<b>Unit III : Analysis based on distance</b> 1. Built Environment , 2. SpatialAnalysiss 3. Transformation 4. Tolerance 5. Buffer 6. Density Estimate.	III	A,B	03 03 03 03 03	9-09-2022 16-09-2022 23-09-2022 30-09-2022 7-10-2022	9-09-2022 23-09-2022 7-10-2022	03 03 03	
<b>Unit IV</b> Qualitative and quantitative research methodology.	IV	A,B	03 03	14-10-2022 21-10-2022	13-10-2022	03	
<b>Total</b>			39			33	

Subject Incharge : Mrs. Anjali.V.Narad

Ms. Ruchita.L. Bhagat

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**SUBJECT – Construction Tech. & Materials- V (6S-A-2)**  
**6<sup>th</sup> SEMESTER B. Arch.**  
**TEACHING SCHEDULE (2021-22)**

<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	100	College Assessment	
University Examination	100	University Examination	
Duration of University Theory Examination:		Hours	
Total Credits: T + P =			
<b>Reference Text Books</b>			
1	Building Construction – Sushil Kumar		
2	construction Bldgs		R. Bary
	b. Special Structures concrete		Rajat. Siddhant

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
• Cladding materials	1	As above	4		16.2.22	4
• Bamboo, mud, ferro-cement, vault, domes, flat slabs, grid slabs, folded plates	2		15		21.2.22 23.2.22 25.2.22 27.2.22 10.3.22	15
			4	30.3.22	30.3.22	2
• High Rise construction	3		4	6.4.22, 13.4.22	6.4.22, 13.4.22	4
• Advanced RCC Structures.	4		4	20.4.22, 27.4.22	20.4.22, 27.4.22	4
<b>Total Number of Lectures</b>			<b>31</b>	<b>31</b>		<b>29</b>

Note : Unit nos. 1 & 2 is agreed to be taken by smt. Ashmita Dharkar.

*Ashmita*  
27/4/22

*Vinod*

**SUBJECT IN-CHARGE**  
**Vinod Maheshwari**  
 27.4.22

outcome of subject:

Students will learn about various cladding materials used in bldg. construction as well as various atmospheric conditions. The study of high rise & RCC structure will help students understand the concept of advanced const.

*Ashmita*  
 (Mrs. Ashmita Dharkar)

*Vinod*  
 Vinod Maheshwari

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. SIXTH SEMESTER**  
**Design of Human Settlements (6S-A-6)**

**Objectives:**

The study aims at introducing students to the development of planning thought from that of historic to present age. It also gives emphasis on stressing broad principles of settlement in such period. The study of this subject continues with emphasis on planning philosophies and the student to carry out the further studies in the specialized field of Urban Planning.

**Syllabus**

1. Man's role in designing and developing the towns and cities from ancient times through Medieval, Renaissance and Industrial revolution to present day development.
2. Town planning in India, Pre-historic, Vedic, Pre-British and British Planning in India, Planning after independence.
3. Pioneers & their works, Planning concepts of Patrick Geddes, Ebenezer Howard, Abercrombie, Le-Corbusier, C. A. Perry, Clarence Stein, Doxiadis, Kevin Lynch, F.L. Wright, and Lewis Mumford.
4. Present concept of planning at various levels, Planning as a team work, Role of Architects/ Planners in a team, Importance and methodologies of surveys in the planning process.
5. Understanding the process of development plan making, town and regional planning acts, M.R.T.P Act., Development control rules, zoning, density, height, FSI Structures.
6. Introduction to the problem of urban and rural housing in India, General study of Planning consideration of housing and area development and housing infrastructure such as utilities and services.

**Sessional work:-** Assignments on each unit with presentation, lecture and watching relevant visuals & tests.

## TEACHING SCHEDULE

### Design of Human Settlements

(6S-A-6)

Theory	Marks	Practical	Marks
College Assessment	--	College Assessment	30
University Examination	--	University Examination	70
Duration of University Theory Examination: --Hours			
Total Credits: T +P = 100			
<b>Reference Text Books</b>			
A	Fundamentals of Town Planning	<i>G.K.Hiraskar</i>	
B	Town Planning	<i>S.C.Rangwala &amp; K.S.Rangwala</i>	
C	Town Planning	<i>Abir Bandhopadhaya</i>	
D	Urban Pattern City Planning and Design	<i>Gallion and Eisher</i>	

ign of Human Settlements

Topic	Unit No.	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Man's role in designing and developing the towns and cities from ancient times through Medieval, Renaissance and Industrial revolution to present day development.	1	1	16/02/2022		
Town planning in India, Pre-historic, Vedic, Pre-British and British Planning in India, Planning after independence.	2	2	23/03/2022 02/03/2022		
Pioneers & their works, Planning concepts of Patrick Geddes, Ebenezer Howard, Abercrombie, Le-Corbusier, C. A. Perry, Clarence Stein, Doxiadis, Kevin Lynch, F.L. Wright, and Lewis Mumford.	3	2	09/03/2022 16/03/2022		
Present concept of planning at various levels, Planning as a team work, Role of Architects/ Planners in a team, Importance and methodologies of surveys in the planning process.	4	2	23/03/2022 30/03/2022		
Understanding the process of development plan making, town and regional planning acts, M.R.T.P Act., Development control rules, zoning, density, height, FSI Structures.	5	2	06/04/2022 13/04/2022		
Introduction to the problem of urban and rural housing in India, General study of Planning consideration of housing and area development and housing infrastructure such as utilities and services.	6	2	20/04/2022 27/04/2022		

Kaushal S. Jajoo  
(Teacher Incharge)

KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK

DEPARTMENT OF ARCHITECTURE

SUBJECT: ESTIMATING & COSTING (6S-A-7)

B.ARCH. -SIXTH SEMESTER

TEACHING SCHEDULE (2021-22)

Theory	Marks	Practical	Marks
College Assessment	--	College Assessment	50
University Examination	--	University Examination	--
Duration of University Theory Examination			
Total Credits =50			
Reference Text Books			
A: Estimating & Costing By N.D. <del>Bhatt</del> <i>Datta</i>		B: State Schedule of Rates	

~~AA~~  
29/4/22



regional planning acts., M.R.T.P Act., Development control rules, zoning, density, height, FSI Structures, Role of local and planning authorities.

**Unit VI:** Introduction to the problem of urban and rural housing in India, Analysis of demand and supply, General study of Planning consideration of housing and area development and housing infrastructure such as utilities and services.

Sessional works : Notes and Seminar of above topics, Critical appraisal of existing proposed housing schemes, planning exercise of residential community.

Reference books :

Fundamentals of Town Planning by G.K.Hiraskar, Danpatrai & Sons.

Town Planning by S.C.Rangwala and K.S.Rangwala

Town Planning by Abir Bandhopadhaya, Books and Allied (P) Ltd.,

Urban Pattern City Planning and Design by Gallion and Eisher.

Sessional work :- Sketches, assignments & tests.

---

6S-A-7

**Estimating and costing**

**Unit I:** Purpose of Estimating, types of estimates

**Unit II:** Bill of quantities for single story structures - (a) Load bearing (b) R.C.C, frame.

**Unit III:** Study of IS-1200.

**Unit IV:** Estimation of quantities for R.C.C. structural members like footing, column, beam and slab.

**Unit V:** Estimation for electrification, water supply & sanitation, (only for residential buildings)

**Unit VI:** Rate Analysis - general, factors affecting the rate of an item, rate analysis for R.C.C. work, brick work, plaster work, flooring painting, doors and windows

**Unit VII:** Brief specifications and schedule of rates.

Sessional work: - Plates, sketches, & tests.

AA  
29/4/22

---

6S-AA-1

Elective a - project management/ data management techniques/computer applications in estimating and costing/

---

6S-AA-2

Elective b - advanced spatial analysis/ environmental psychology/ man-environment relationship

COURSE OUTCOME → \* Students have understood the importance of the subject in profession.  
\* They can prepare estimate of small building if required data is available.

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE,  
RAMTEK**

DEPARTMENT OF ARCHITECTURE  
SUBJECT - PROJECT MANAGEMENT (6SA-6)  
6th SEMESTER B. Arch.  
TEACHING SCHEDULE (21 - 222)

Theory	Marks	Practical	Marks
College Assessment	100	College Assessment	---
University Examination	-	University Examination	---
Total Credits:			
Reference Text Books			
A	Project Management	By R. Pannerselem P. Senthil kumar	

**Lecture Details**

Topic	Unit No.	Refer Books	No of Lectures planned	Probable dates of teaching	Actual dates of teaching	No. of Lectures Taken
Introduction to Project Management, Need of PM, Organization Chart	1	A	3	21/2, 28/2, 7/3	21/2, 7/3	6
Phases of PM, Material Management, Risk Analysis	2	A	3	14/3, 21/3, 28/3	14/3, 28/3	3
Project Schedule	3	A	2	4/4, 11/4	4/4, 11/4	6
Critical Path method (CPM), Pert,	4	A	2	18/4, 25/4		
<b>Total no. of Lectures</b>			10			15

**Outcome of the subject:**

Students will learn the project management tools which are used in the construction industries. These tools will help to analyze the complicated projects and will benefit to mitigate them. The three important aspects of PM which is Time, cost, and quality which are of the utmost important part of PM. The methodologies and processes of the PM tools, which can be utilized in consulting, contracting, and other areas, will assist students.

**Subject In-charge**

*Asmita*  
27/4/22  
**Asmita Dharkar**

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**

**DEPARTMENT OF ARCHITECTURE**

**B.ARCH. SIXTH SEMESTER**

**SUBJECT: ARCHITECTURE APPRECIATION**

**(6S-A-2)**

**TEACHING SCHEDULE (2021-22)**

Theory	Marks	Practical / Sessional	Marks
College Assessment	--	College Assessment	100
University Examination	--	University Examination	--
Duration of University Theory Examination:-- NIL.			
Total Credits: 04			
<b>Reference Text Books</b>			
A	Rendring with Pen and Ink	R.W.Gill	
B	Perspective and Sciography	Shankar Mulik	
C	Rendring in Pen & Ink	Arthur L.Guptil	
D	Architecture in Pen & Ink	John Chen	
E	Benister Fletcher(1996)	History of architecture, architectural press 1996	
F	Kenneth Frampton 2007 towards new architecture themes and hudson,	Fourth addition September 30, 2007	
<b>Other Text Books of Interest</b>			
1	Rizzoli March 18, 2008	How to read a building	
2	satish Grover,2002	Islamic architecture in India, CBS publishers and distributors	

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Recapitulation of previous 5 semesters	I	A,B, C,D	24	12/2/2022 16/2/2022	12/2/2022 16/2/2022	24
One ability of understanding this will generate ability of understanding architectural form in better manner it includes appreciation advocatery, descriptive evaluative, interpretive andOther evaluation criteria and methodology.		A,B, C,D, E,F	48	18/02/2022 22/02/2022 26/2/2022	18/02/2022 22/02/2022 26/2/2022	48
Development of design thought it is to assist understanding developing and expressing a design thought in its right perspective purpose manner and mode.		A,B, C,D, E,F	25	18/02/2022 22/02/2022	18/02/2022 22/02/2022	25
Theories and models of experiencing architecture.		A,B, C,D, E,F	52			52
			149			149

Sessional work: Assignment test site visit and as appreciation of buildings books etc.

Subject Incharge : Mrs.Anjali V.Narad

## Syllabus:

### Architecture appreciation

Architecture appreciation is a confluence appreciation is essentially an expression of gratitude whereas criticism is the art of analyzing and judging the qualities of the design of any architectural work. Architecture appreciation of beauty of beauty in architecture poses many challenges but the greatest challenges lies in the personality of a critic on the one hand and the lack of creativity in the architect on the other since Architecture appreciation is not to be based on pre-conception a heavy responsibility lies on the critics shoulder the approach of a critic therefore has to be based on being conscious of the emergence of form through design the personality Of the designer and the emotive responses of the architect.

The objective of the subject is to groom the skill of Architecture appreciation and to acquaint the students with the tools and means associated with it the contents Of the subject are designed with due consideration to make it comprehensive meaningful and enjoyable you will be taken through the journey of understanding various established theories of Architecture appreciation and then helping you to learn how to analyse synthesize and at times redesign and re-create certain things which otherwise were just up to the mark till date that is this elective subject will be focusing on product analysis poster and Architecture appreciation of various art forms other than architecture

### **Objective and scope**

Objective of the elective is to acquaint students with the arts skills and techniques of visual perception communication of the aesthetic's of architecture and other associated art forms in a journalistic manner.

Unit 1.one ability of understanding this will generate ability of understanding architectural form in better manner it includes appreciation advocatery, descriptive evaluative, interpretive andOther evaluation criteria and methodology.

Unit2-Development of design thought it is to assist understanding developing and expressing a design thought in its right perspective purpose manner and mode.

Unit 3- Theories and models of experiencing architecture.

Sessional work:Assignment test site visit and as appreciation of buildings books etc.

Sessional work:Assignment test site visit and as appreciation of buildings books etc.

Subject Incharge : Mrs.Anjali V.Narad

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH SEVENTH SEMESTER**  
**SUBJECT: ARCHITECTURAL DESIGN - VII**  
**(7S-A-1)**  
**TEACHING SCHEDULE 2022-23**

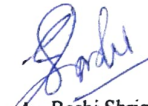
<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
Sessional	150	Viva Voce	50
Duration of university examination ---- Hours			
Reference text books			

Lecture Details							
Project/Topic	Unit No.	Reference Books	Teaching Week	No. of Lectures/hours planned	Probable dates of teaching	Actual dates of teaching	No. of Lectures taken
Recapitulation			Week 1 4th week of July 18/07 to 23/07	3	19/07/2022	18/07/2022	6
				6	22/07/2022	19/07/2022	6
				3	23/07/2022	20/07/2022	6
						21/07/2022	6
						23/07/2022	6
Design Problem Introduction PPT By Mrs. Priya Gupta			Week 2 5th week of July 25/07 to 30/07	3	26/07/2022	26/07/2022	3
Literature Study Data Collection By laws				6	29/07/2022	29/07/2022	6
Literature and Live Case Study			Week 3 1st week of Aug 01/08 to 06/08	3	2/8/2022	2/8/2022	3
				6	5/8/2022	5/8/2022	6
Comparative Analysis			Week 4 2nd week of Aug 08/08 to 13/08	6	12/8/2022	12/8/2022	6
Site Analysis				3	13/08/2022		
Zoning & Circulation			Week 5 3rd Week of Aug 15/08 to 20/08	6	19/08/2022	19/08/2022	6
Concept Development			Week 6 4th Week of Aug 22/08 to 27/08	3	23/08/2022	23/08/2022	3
				6	26/08/2022	26/08/2022	6
Site Plan				3	27/08/2022	30/08/2022	3
				3		2/9/2022	6
Planing process - Single line - Double line			Week 7 1st Week of Sept 05/08 to 10/08	3	6/9/2022	6/9/2022	6
				6	9/9/2022		
Service Plans				3	10/9/2022	10/9/2022	6
<b>1st Mid sessional exam</b>							
						<b>13/09/2022</b>	<b>3</b>
Sections				6	16/09/2022	16/09/2022	6
			Week 9 3rd week of Sept 19/09 to 24/09	3	20/09/2022	20/09/2022	3
		6		23/09/2022	23/09/2022	6	
		3		24/09/2022			
			Week 10 4th Week of Sept 25/09 to 30/09	3	27/09/2022		
				6	30/09/2022		

Detailed Drawings	Week 11 1st Week of Oct 3/10 to 8/10	3	4/10/2022	7/10/2022	6	
		6	7/10/2022			
		3	8/10/2022			
	Week 12 2nd week of Oct 10/10 to 15/10	3	11/10/2022	11/10/2022	3	
		6	14/10/2022	14/10/2022	6	
	<b>2nd Mid sessional exam</b>					
<b>Extra Classes</b>						
Extra Classes	Week 13 1st Week of Nov 01/11 to 04/11			1/11/2022	3	
				2/11/2022	6	
				4/11/2022	6	
	Week 14 2nd Week of Nov 09/11 to 11/11			9/11/2022	5	
				10/11/2022	4	
				11/11/2022	6	
	Week 15 3rd Week of Nov 14/11 to 18/11			14/11/2022	6	
				15/11/2022	6	
				16/11/2022	6	
				17/11/2022	4	
	Week 16 4th Week of Nov 22/11 to 29/11			18/11/2022	5	
				22/11/2022	3	
				25/11/2022	6	
			29/11/2022	3		
	<b>Total Classes Conducted</b>					<b>192</b>

Staff In-charge:


Ar. Priya Gupta


  
 Ar. Rashi Shrigadiwar

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. SEVENTH SEMESTER (CBS)**  
**CONSTRUCTION TECHNOLOGY & MATERIALS VII (7S-A-2)**

**TEACHING SCHEDULE (2022-2023)**

Theory	Marks	Practical	Marks
College Assessment	--	College Assessment	100
University Examination	100	University Examination	--
Duration Of University Theory Examination : 03 Hours			
Total Credits: = T+P= 3+2=5 hours			
<b>Reference Text Books</b>			
A.	Advanced Building Construction By Mitchell	Allied Publishers.	
B.	Construction Buildings	R.Barry, Orient Longman.	
C.	Space Structures	N. Subramaniam, Wheeler.	
D.	A. J.Handbook Of Building Structures	A. Hodgkinson.	
E.	Pre-Stressed Concrete Structures	P.Dayaratnan	
F.	Building Construction Illustrated	Francis D.K.Ching, Van Nostrand.	
G.	Concrete Technology	M.S.Shetty, S.Chand And Co.	
H.	Erection Of Pre-Fabricated Reinforced Concrete Structures	Y.Bessar & V.Proskurnin.	
I.	Structures	Daniel L.Segodak,Prentice – Hall, Inc.	
J.	Structural Concepts And Systems For Architects And Engineers	T.Y.Lin And Stotesbury.	

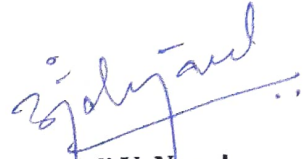
  
**Ar. Anjali V. Narad**  
 (Teacher Incharge)

  
**Ar. Bhavana N. Raut**  
 (Teacher Incharge)



### Studio Details

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
1. Temporary structures, materials and techniques used, constructional aspects using timber and M.S Sections, design and detailing problems on small temporary structures.	V	A,B,C, D,E,F, G,H	09	25/07/2022 01/08/2022 08/08/2022		
2. Introduction to space structures, possibilities in different materials, types of space structures and possibilities in different materials to cover large spans. General study of shell structures and folded plate structures in concrete, various types, constructional aspects, merits and demerits etc.	I	A,B,C, D,E,	12	13/08/2022 22/08/2022 27/08/2022 29/08/2022		
3. General study of Grid structures and Skeletal structures, space frames, domes etc. in steel, various types, constructional aspects, merits and demerits, etc.	II	A,B,C, D,E,	06	05/09/2022 10/09/2022 12/09/2022		
4. Pre-cast concrete, Design considerations and constraints, advantages over cast-in-situ construction, construction techniques and jointing details, applications. Modular coordination, RCC pre-fabricated proofing systems to cover large spans, with or without north light.	III	A,B,C, D,E,	03	19/09/2022 24/09/2022 26/09/2022		
5. Study of pre stressed concrete, principals and methods of prestressing, system of prestressing, advantages and disadvantages and applications.	IV	A,B,C, D,E,	03	26/09/2022 03/10/2022		
6. General study of various external cladding materials and systems, curtain walling in various materials, construction details of glass curtain.	VI	D,E	06	03/10/2022 08/10/2022		

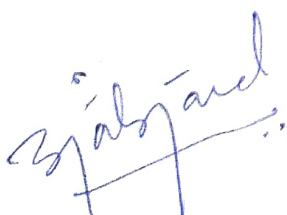
  
Ar. Anjali V. Narad  
(Teacher Incharge)


  
Ar. Bhavana N. Raut  
(Teacher Incharge)

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. SEVENTH SEMESTER (CBS)**  
**CONSTRUCTION TECHNOLOGY & MATERIALS VII (7S-A-2)**

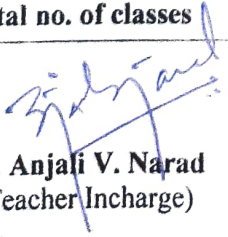
**TEACHING SCHEDULE (2022-2023)**

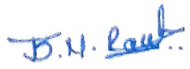
Theory	Marks	Practical	Marks
College Assessment	--	College Assessment	100
University Examination	100	University Examination	--
Duration Of University Theory Examination : 03 Hours			
Total Credits: = T+P= 3+2=5 hours			
<b>Reference Text Books</b>			
A.	Advanced Building Construction By Mitchell	Allied Publishers.	
B.	Construction Buildings	R.Barry, Orient Longman.	
C.	Space Structures	N. Subramaniam, Wheeler.	
D.	A. J.Handbook Of Building Structures	A. Hodgkinson.	
E.	Pre-Stressed Concrete Structures	P.Dayaratnan	
F.	Building Construction Illustrated	Francis D.K.Ching, Van Nostrand.	
G.	Concrete Technology	M.S.Shetty, S.Chand And Co.	
H.	Erection Of Pre-Fabricated Reinforced Concrete Structures	Y.Bessar & V.Proskurnin.	
I.	Structures	Daniel L.Segodak,Prentice – Hall, Inc.	
J.	Structural Concepts And Systems For Architects And Engineers	T.Y.Lin And Stotesbury.	

  
**Ar. Anjali V. Narad**  
 (Teacher Incharge)

  
**Ar. Bhavana N. Raut**  
 (Teacher Incharge)

<b>Studio Details</b>						
<b>Topic</b>	<b>Unit No.</b>	<b>Refer. Books</b>	<b>No. of Lectures Planned</b>	<b>Probable Dates of Teaching</b>	<b>Actual Dates of Teaching</b>	<b>No. of Lectures Taken</b>
1. Temporary structures, materials and techniques used. constructional aspects using timber and M.S Sections. design and detailing problems on small temporary structures.	V	A,B,C, D,E,F, G.H	09	25/07/2022 01/08/2022 08/08/2022	25/07/2022 01/08/2022 22/08/2022	09
2. Introduction to space structures, possibilities in different materials, types of space structures and possibilities in different materials to cover large spans. General study of shell structures and folded plate structures in concrete, various types. constructional aspects, merits and demerits etc.	I	A,B,C, D,E,	12	13/08/2022 22/08/2022 27/08/2022 29/08/2022	29/08/2022 08/09/2022	12
3. General study of Grid structures and Skeletal structures, space frames, domes etc. in steel, various types, constructional aspects, merits and demerits, etc.	II	A,B,C, D,E,	06	05/09/2022 10/09/2022 12/09/2022	17/09/2022 18/09/2022	06
4. Pre-cast concrete. Design considerations and constraints, advantages over cast-in-situ construction, construction techniques and jointing details, applications. Modular coordination, RCC pre-fabricated proofing systems to cover large spans, with or without north light.	III	A,B,C, D,E,	03	19/09/2022 24/09/2022 26/09/2022	24/09/2022 08/10/2022	06
5. Study of pre stressed concrete, principals and methods of pre-stressing, system of prestressing, advantages and disadvantages and applications.	IV	A,B,C, D,E,	03	26/09/2022 03/10/2022	10/10/2022 13/10/2022	06
6. General study of various external cladding materials and systems, curtain walling in various materials, construction details of glass curtain.	VI	D,E	06	03/10/2022 08/10/2022	13/10/2022 17/10/2022	49
<b>Total no. of classes</b>						<b>49</b>

  
Ar. Anjali V. Narad  
(Teacher Incharge)

  
Ar. Bhavana N. Raut  
(Teacher Incharge)

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B. ARCH. SEVENTH SEMESTER (New CBS)**  
**Building Services-IV (7S-A-3)**

**Unit I:** Principles of Psychometrics and heat transfer, Study of Air conditioning systems and their applicability, Unit A.Cs, Central A.Cs, Split A.Cs.

**Unit II:** Components of A.C. systems such as chilling plants, cooling towers, air handling units, etc. Calculation of A.C. loads and Air distribution systems, ducts and ducting layouts, space requirement, integration of A.C. system in design, Water demand for A.C.

**Unit III:** Electric supply and distribution for group housing projects, urban complexes, high-rise building etc. Study of load calculations and distribution systems for larger areas as mentioned above.

**Unit IV:** Importance and functions of bus bar, set up, step up and step down transformers, electrical substation, lightning conductors, stand by generators, automatic relays, invertors, circuit breakers etc.

**Unit V:** Electromechanical means of vertical transportation in buildings, requirements, occupant load, study of elevators, various components of elevators, standard space requirements, various types of elevators and architectural implications.

**Unit VI:** Escalators and Trav-o-lators, its components arrangements and functioning, space requirements, construction detailing.

Sessional work: Sketches, notes, tutorials, tests and presentations.

**TEACHING SCHEDULE (2022-23)**

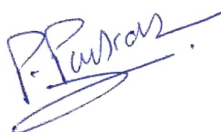
Course Title & Code:		Building Services-IV (7S-A-3)			
In charge Faculty:		Ar. Pratik P. Purkar			
<b>Scheme of Examination</b>					
<b>Theory</b>	<b>Marks</b>	<b>Practical</b>		<b>Marks</b>	
College Assessment	30	College Assessment		-	
University Examination	70	University Examination		-	
Duration of University Theory Examination: 03Hours					
Total Load per week: 2	L = 1	T = 1	D =	S/P =	
Total Credits: 2	L = 1	T = 1	D =	S/P =	
<b>Reference Text Books</b>					
A	Mitchell's Advanced Building Construction.	By. Allied Publication			
B	Building Services & Equipments Vol. I & II	By. F. Hall, Longman Group Ltd.			
C	National Building Code 2005	By. BIS Govt. of India.			
D	Indian Practical Civil Engineers handbook	By. P. N. Khanna			
E	Basic refrigeration & Air conditioning	By. Ananthnarayan, Tata McGraw-hill			
F	Building engineering & System design	By. F.S. Merrit & J. Ambrose			
<b>Other Text Books of Interest</b>					
1					
2					

## LECTURE DETAILS (2022-23)

Sr. No.	Topic	Course Outcome	Scheduled Date & Classes	Actual Date & Classes
1	Heat transfer Principles of Psychometre	7S-A-3.1.1	08/08/2022-2	05/09/22-2
	Study of Air conditioning systems and their applicability. Types of ACs	7S-A-3.1.2	10/08/2022-1	07/09/22-1
	Unit A.Cs, Central A.Cs, Split A.Cs.	7S-A-3.1.3	17/08/2022-1	19/09/22-1
2	Components of A.C. systems chilling plant, cooling towers, air handling units, etc.	7S-A-3.2.1	22/08/2022-2	28/09/22-1
	Air distribution systems, ducts and ducting layout, space requirement, integration of A.C. system in design.	7S-A-3.2.2	24/08/2022-1	10/10/22-1
	Calculation of A.C. loads and Water demand for cooling tower.	7S-A-3.2.3	29/08/2022-2	10/10/22-2
3	Electric supply and distribution System	7S-A-3.3.1	25/07/2022-1	25/07/22-1
	Distribution in group housing projects, urban complexes, high-rise building etc.	7S-A-3.3.2	25/07/2022-1	25/07/22-1
	Study of bus bar calculations and distribution systems for larger areas as mentioned in code.	7S-A-3.3.3	27/07/2022-1	27/07/22-1
4	Importance and functions of step up and step down transformers, bus bar.	7S-A-3.4.1	01/08/2022-2	01/08/22-2
	Identification of transformers, automatic re-configuration, breakers electrical substation.	7S-A-3.4.2	01/08/2022-2	24/08/22-2
	study by group of Investors, etc.	7S-A-3.4.3	03/08/2022-1	22/08/22-1
5	Electrical supply means of vertical transportation in buildings, Requirement of occupant load.	7S-A-3.5.1	19/09/2022-2	12/10/22-2
	Study of lift system.	7S-A-3.5.2	21/09/2022-1	12/10/22-1
	Various types of elevators, Standards and requirements.	7S-A-3.5.3	26/09/2022-2	09/11/22-1
	Various types of elevators and applications.	7S-A-3.5.4	28/09/2022-1	09/11/22-1
6	Identification of elevators,	7S-A-3.6.1	03/10/2022-2	14/11/22-1
	Identification of arrangements and fire fighting.	7S-A-3.6.2	10/10/2022-2	14/11/22-1
	Study of construction details.		12/10/2022-1	23/11/22-1

### ASSIGNMENT / TASK DETAILS (2022-23)

Unit No.	Assignment/ Question/ Problem	Course Outcome	Program Outcome	Applicability in the field/exam
3	Sheet work: Electrical Distribution system for campus projects in Design-VII	7S-A-3.3.1	PO-	Practice
1 to 6	Solve any one University Question Paper published previously.	7S-A-3	PO-	Academic



**Ar. Pratik P. Puri**  
(Teacher In-charge)

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**STRUCTURAL DESIGN & SYSTEMS VII**  
**B.ARCH. SEVENTH SEMESTER**

**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	30	College Assessment	-
University Examination	70	University Examination	-
Duration of University Theory Examination: 3 Hours			
Total Credits: 3T			
<b>Reference Text Books</b>			
A	Design of Steel Structures	N.Subramanian	
B	Design of Steel Structures	S.Ramamurtham	
C	Fundamentals of Design of Steel Structures	Gambhir	
D	Limit State Design of Steel Structures	V.L.Shah & V Gore	
<b>Other Text Books of Interest</b>			
1	Design of Steel Structures	Duggal	
2	Design of Steel Structures	Jain, Punmia, Jain	
3	Design of Steel Structures	L. S. Negi	

- i) IS 800:2007 Code of Practice for General Construction in Steel  
 ii) Structural Steel Table/ Structural handbook

### Lecture Details

Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Study of IS:800 – Design considerations.	I	A,B,C	2	25/7,28/7		
Steel Connections- Welded Joint a) Types of welds, b) Concentric sections, c) Eccentric sections, d) Sections in bending, e) Sections in torsion	II	B,C	4	30/7,1/8, 4/8,6/8		
Design of Tension member	III	A,B,C,D	4	8/8,11/8 13/8,18/8		
Design of Compression members- Strut and independent	IV	A,C	4	20/8,22/8, 25/8,27/8		
Design of Built-up column	V	A,C	4	29/8, 1/9		
Design of Sections in Bending	VI	A,C,D	4	3/9, 5/9, 8/9,10/9		
Sections subjected to biaxial bending( design of purlin).	VII	A	4	19/9,22/9, 24/9,26/9		
Structural Behavior of Types of Large Span Steel Structures like: a) Arches. b) Open web sections. c) Bow string girder, d) Suspension Structures, e) Geodetic dome. f) Space Structures.	VIII	A,B,D	4	29/9,1/10, 3/10,8/10		
<b>Total number of Lectures</b>			<b>30</b>			

P. D Ramteke  
Subject Teacher



**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**STRUCTURAL DESIGN & SYSTEMS VII**  
**B.ARCH. SEVENTH SEMESTER**

**TEACHING SCHEDULE (2022-23)**

<b>Theory</b>		<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment		30	College Assessment	-
University Examination		70	University Examination	-
Duration of University Theory Examination: 3 Hours				
Total Credits: 3T				
<b>Reference Text Books</b>				
A	Design of Steel Structures		N.Subramanian	
B	Design of Steel Structures		S.Ramamurtham	
C	Fundamentals of Design of Steel Structures		Gambhir	
D	Limit State Design of Steel Structures		V.L.Shah & V Gore	
<b>Other Text Books of Interest</b>				
1	Design of Steel Structures		Duggal	
2	Design of Steel Structures		Jain,Punmia, Jain	
3	Design of Steel Structures		L. S. Negi	

- i) IS 800:2007 Code of Practice for General Construction in Steel  
ii) Structural Steel Table/ Structural handbook

### Lecture Details

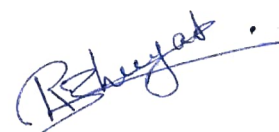
Topic	Unit No.	Refer. Books	No. of Lectures Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken
Study of IS-800 Design considerations	I	A,B,C	2	25/7,28/7	25/7,28/7	2
Steel Connections- Welded Joint a. Types of welds. b. Concentric sections. c. Eccentric sections. d. Sections in bending. e. Sections in torsion.	II	B,C	4	30/7,1/8, 4/8,6/8	1/8,4/8	2
Design of Tension member	III	A,B,C,D	4	8/8,11/8 13/8,18/8	8/8,11/8	2
Design of Compression members- Strut and independent	IV	A,C	4	20/8,22/8, 25/8,27/8	18/8,22/8,	2
Design of Built-up column	V	A,C	4	29/8, 1/9	25/8,29/8	2
Design of Sections in Bending	VI	A,C,D	4	3/9, 5/9, 8/9,10/9	1/9, 5/9	2
Sections subjected to biaxial bending( design of purlin).	VII	A	4	19/9,22/9, 24/9,26/9	8/9,19/9	2
Structural Behavior of Types of Large Span Steel Structures like: a) Arches. b) Open web sections. c) Bow string girder, d) Suspension Structures, e) Geodetic dome, f) Space Structures.	VIII	A,B,D	4	29/9,1/10, 3/10,6/10	3/10,6/10	2
<b>Total number of Lectures</b>			<b>30</b>			<b>16</b>

P. D Ramteke  
Subject Teacher

## TEACHING SCHEDULE (2022-23)

### TEACHING SCHEDULE

In charge Faculty	Ar.Priya Agrahari Ar Ruchita Bhagat		
Course Title & Code:	Research Skills And Project Introduction Subject Code-7S-A-5		
<b>Scheme of Examination</b>			
<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	00	College Assessment	50
University Examination	00	University Examination	50
Duration of University Theory Examination: 03Hours			
Total Credits: T + P = 100			
<b>Reference Text Books / Research Papers / Notes</b>			
A	Architectural Research Methods: By Linda N. Groat		
B	Research Methodology: By C R Kothari		
<b>Other Books</b>			



**Subject Incharge :** Ar.Priya Agrahari

Ms. Ruchita.L. Bhagat

KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK  
DEPARTMENT OF ARCHITECTURE  
B.ARCH. FIFTH SEMESTER  
SUBJECT: RESEARCH SKILLS AND PROJECT INTRODUCTION  
(7S-A-5)

SYLLABUS

**University Syllabus:**

**Objective:**

**Unit I:** Identification of the investigation to be done in research, methodology in sequence to achieve to acquire desired results

**Unit II:** Data collection methods like reference books, internet resource, monographs, microfilms, tables and charts and statistical data

**Unit III:** Assessment of data to be used in formation of the total thesis profile

**Unit IV:** Concluding part of research comprising of the data used in the case study for final presentation in presentable format through similar case studies

Sessional Work: Ppt presentation of the topic the along with report

## STUDIO SCHEDULE

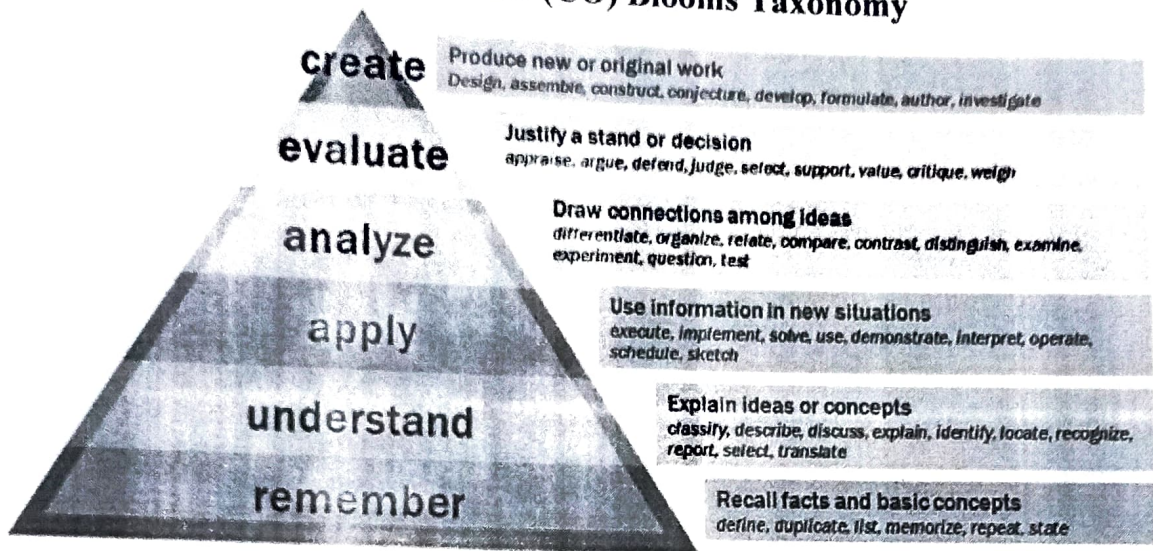
Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken	Exercise
<b>Unit I: Identification of the investigation to be done in research, methodology in sequence to achieve to acquire desired results</b> (1) Introduction to Research, Types of Research (2) Framing of research aims and objectives Methodology and stages of working	01	A,B	03 03 03 03	26-07-2022 02-08-2022 23-08-2022 30-08-2022			Find out the Area of interest for the framing research Topic(a minor project)
<b>Unit II: Data collection methods like reference books, internet resource, monographs, microfilms, tables and charts and statistical data</b> (1) Data for research (2) Data Collection Methods Data Analysis Techniques	II	A,B	03 03 03	06-09-2022 13-09-2022 20-09-2022			Data collection
<b>Unit III: Assessment of data to be used in formation of the total thesis profile</b> (1) Types of Research Papers	III	A,B	03 03 03	27-09-2022 04-10-2022 11-10-2022			Comparative study of two Research paper and its inferences

Unit IV: Concluding part of research comprising of the data used in the case study for final presentation in presentable format through similar case studies.	IV	A,B	03	18-10-2022			Final Report
			33				

**Subject Incharge :** Ar. Priya Agrahari

Ms. Ruchita.L. Bhagat

## Course Outcomes (CO) Blooms Taxonomy



## Program Outcomes (PO) Blooms Taxonomy


1. **Knowledge** -Understanding about role of various knowledge domains such as humanities, technology, and environment in design of built environment.
2. **Principles & Theory**- Knowledge of principles of architecture & theoretical knowledge and its application in design.
3. **Creativity** - Creative and design thinking ability.
4. **Practice** - Ability to understand real life situation of Architectural Practice and to work with ethical and professional responsibilities.
5. **Collaborative Working** -Ability to communicate effectively and work in interdisciplinary groups.
6. **Inclusivity** -Sensitivity in design for inclusivity, equity, environment, diverse cultures, and heritage.
7. **Technological Knowhow**-Ability to review, comprehend and report technological developments in the profession of architecture and construction.
8. **Ability to choose Area of Specialisation or Practise**- Able to judge one's area of interest and accordingly choose the field of practice.

## TEACHING SCHEDULE (2022-23)

### TEACHING SCHEDULE

In charge Faculty	Ar.Priya Agrahari Ar Ruchita Bhagat		
Course Title & Code:	Research Skills And Project Introduction Subject Code-7S-A-5		
<b>Scheme of Examination</b>			
<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	00	College Assessment	50
University Examination	00	University Examination	50
Duration of University Theory Examination: 03Hours			
Total Credits: T + P = 100			
<b>Reference Text Books / Research Papers / Notes</b>			
A	Architectural Research Methods: By Linda N. Groat		
B	Research Methodology: By C R Kothari		
<b>Other Books</b>			

**Subject Incharge :** Ar.Priya Agrahari

  
Ms. Ruchita.L. Bhagat



## STUDIO SCHEDULE

Topic/ Project	Unit No.	Refer. Books	No. of Studio /Lecture Planned	Probable Dates of Teaching	Actual Dates of Teaching	No. of Lectures Taken	Exercise
<b>Unit I: Identification of the investigation to be done in research, methodology in sequence to achieve to acquire desired results</b> (1) Introduction to Research, Types of Research (2) Framing of research aims and objectives <b>Methodology and stages of working</b>	01	A,B	03 03 03 03	26-07-2022 02-08-2022 23-08-2022 30-08-2022	26-07-2022 02-08-2022 23-08-2022 30-08-2022	03 03 03 03	Find out the Area of interest for the framing research Topic(a minor project)
<b>Unit II: Data collection methods like reference books, internet resource, monographs, microfilms, tables and charts and statistical data</b> (1) Data for research (2) Data Collection Methods <b>Data Analysis Techniques</b>	II	A,B	03 03 03	06-09-2022 13-09-2022 20-09-2022	06-09-2022 20-09-2022	03 03	Data collection
<b>Unit III: Assessment of data to be used in formation of the total thesis profile</b> (1) Types of Research Papers	III	A,B	03 03 03	27-09-2022 04-10-2022 11-10-2022	27-09-2022 04-10-2022 11-10-2022	03 03 03	Comparative study of two Research paper and its inferences

Unit IV: Concluding part of research comprising of the data used in the case study for final presentation in presentable format through similar case studies.	IV	A,B	03	18-10-2022		03	Final Report
			33			30	

**Subject Incharge :** Ar. Priya Agrahari

**Ms. Ruchita.L. Bhagat**

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. FIFTH SEMESTER**  
**SUBJECT:RESEARCH SKILLS AND PROJECT INTRODUCTION**  
**(7S-A-5)**

**SYLLABUS**

**University Syllabus:**

**Objective:**

**Unit I:** Identification of the investigation to be done in research, methodology in sequence to achieve to acquire desired results

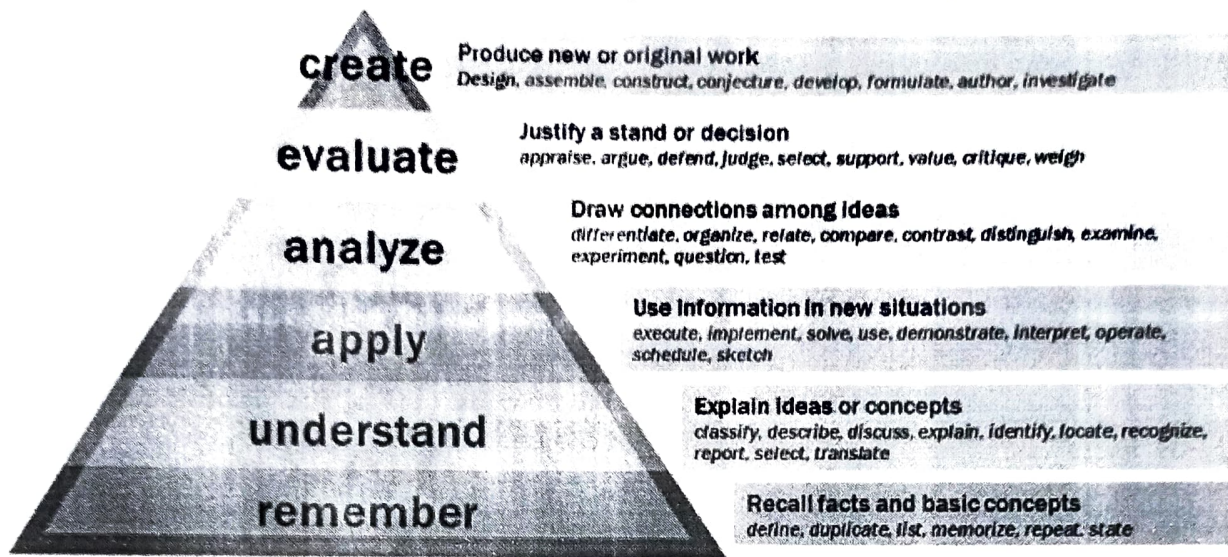
**Unit II:** Data collection methods like reference books, internet resource, monographs, microfilms, tables and charts and statistical data

**Unit III:** Assessment of data to be used in formation of the total thesis profile

**Unit IV:** Concluding part of research comprising of the data used in the case study for final presentation in presentable format through similar case studies

**Sessional Work:** Ppt presentation of the topic the along with report

## Course Outcomes (CO) Blooms Taxonomy



## Program Outcomes (PO) Blooms Taxonomy

1. **Knowledge** -Understanding about role of various knowledge domains such as humanities, technology, and environment in design of built environment.
2. **Principles & Theory**- Knowledge of principles of architecture & theoretical knowledge and its application in design.
3. **Creativity** - Creative and design thinking ability.
4. **Practice** - Ability to understand real life situation of Architectural Practice and to work with ethical and professional responsibilities.
5. **Collaborative Working** -Ability to communicate effectively and work in interdisciplinary groups.
6. **Inclusivity** -Sensitivity in design for inclusivity, equity, environment, diverse cultures, and heritage.
7. **Technological Knowhow**-Ability to review, comprehend and report technological developments in the profession of architecture and construction.
8. **Ability to choose Area of Specialisation or Practise**- Able to judge one's area of interest and accordingly choose the field of practice.

KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK

Department of Architecture

**ACOUSTICS AND ILLUMINATION (7S-A-6)**

**SEVENTHSEMESTER 2022-23**

**University Syllabus:**

**Aim:** The study aims at introducing students to the importance of acoustics and illumination in the architecture. It also gives emphasis on stressing broad principles of subject for indoor spaces.

**Objectives:** Study of this subject will make students realize the importance of acoustics in interior spaces and necessity of manipulating acoustical environment in buildings. And also to impart knowledge of basic illumination design & illumination system for the indoor spaces.

**Acoustics**

Unit I: Frequency range of audible sounds. Propagation of sound, sound reflection, diffusion, diffraction. Sound Isolation, Mass law, Transmission loss, STC rating, TL for single and double walls sound leaks and flanking.

Unit II: Acoustical Material and interior finishes, Sound absorbing materials & their properties. Constructional and planning measures for good acoustical design of building in general, Acoustical treatment of Auditorium / Lecture Halls / Conference hall.

**Illumination**

Unit III: Light radiation, its units, Laws of illumination, inverse square law and cosine law. Artificial light calculation by Lumen Method. Light sources, various types of Lamps and their characteristics.

Unit IV: Types of lighting systems, task lighting, accent lighting, general lighting, lighting for mood etc. Luminaries, their types, properties and uses.

**Class Work:** Notes & problems based on acoustical and illumination design theory, tutorials, Sketches.

Survey of various sound insulating materials for interior elements.

Survey of various lighting fixtures.

**Reference Books:** Acoustics In Building Design by K.A. Siraskar.

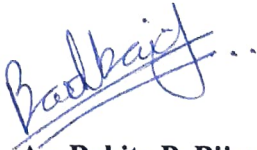
Architectural Acoustics by David Egan.

Auditorium Acoustics and Architectural Design by M. Barron.

**Achievements:** understanding about basic concept about Acoustics and Illumination and its relationship with architecture. Present concept of subject at various levels and Role of Architects in a team.

## TEACHING SCHEDULE

In charge Faculty	Babita P Bijwe		
Course Title & Code:	Acoustics And Illumination		
<b>Scheme of Examination</b>			
<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>
College Assessment	30	College Assessment	00
University Examination	70	University Examination	00
Duration of University Theory Examination: 03Hours			
Total Credits: T			
<b>Reference Text Books / Research Papers / Notes</b>			
A	Acoustics In Building Design	K.A. Siraskar.	
B	Architectural Acoustics	David Egan.	
C	Auditorium Acoustics and Architectural Design	M. Barron	
D	Acoustics and Illumination	M. Edkie	

  
**Ar. Babita P. Bijwe**  
 (Teacher Incharge)

### Schedule for Classes

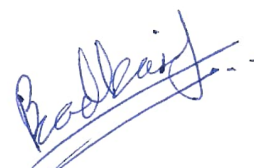
Sr. No.	Topic	Proposed Teaching Date	Actual Teaching Date & Classes	Exercise
Acoustics				
1	Frequency range of audible sounds. Propagation of sound, sound reflection, diffusion, diffraction. Sound Isolation	21/07/2022	27/07/2022 (1)	-
2	Mass law, Transmission loss, STC rating, TL for single and double walls sound leaks and flanking.	04/08/2022	28/07/2022 (2)	-
3	Acoustical Material and interior finishes, Sound absorbing materials & their properties.	11/08/2022	04/08/2022 (3)	-
4	Constructional and planning measures for good acoustical design of building in general, Acoustical treatment of Auditorium / Lecture Halls / Conference hall.	25/08/2022	25/08/2022 (1)	Site Visit
Illumination				
5	Light radiation, its units, Laws of illumination, inverse square law and cosine law, Artificial light calculation by Lumen Method	01/09/2022	01/09/2022 (1)	-
6	Light sources, various types of Lamps and their characteristics.	15/09/2022	22/09/2022 (1)	Market Survey
7	Types of lighting systems, task lighting, accent lighting, general lighting, lighting for mood etc.	22/09/2022	06/10/2022 (2)	Market Survey
8	Luminaries, their types, properties and uses.	13/10/2022	07/11/2022 (4)	Market Survey

*Babita P. Bijwe*

**Ar. Babita P. Bijwe**  
(Teacher Incharge)

### Schedule of Task & Assignment

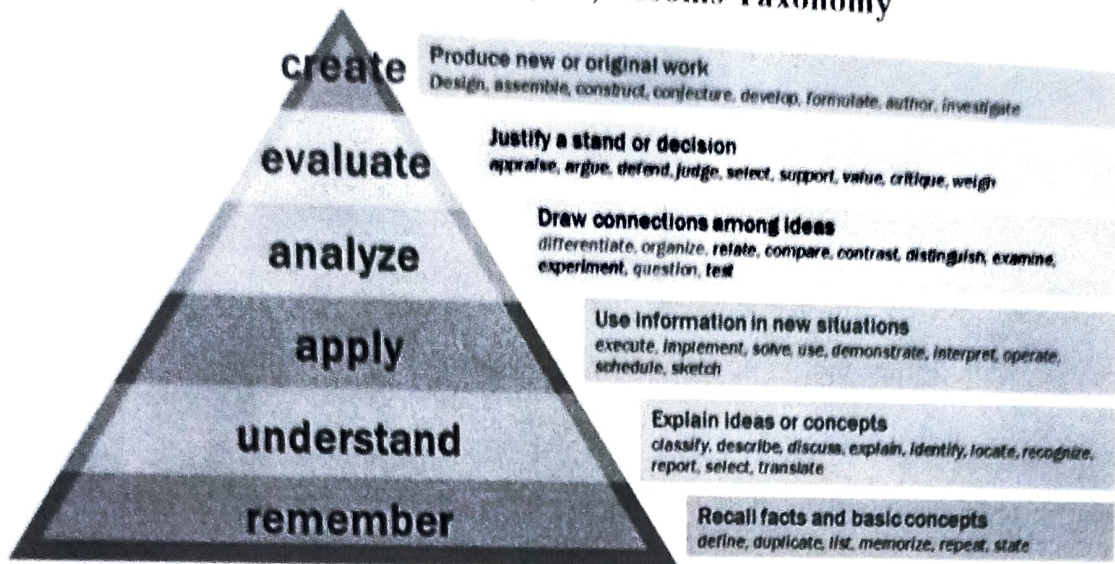
Sr. No	Particulars of Assignment	Sheet nos.	Course Outcome	Introduction Date	Submission Date	Program Outcome
1	Site visit to Auditorium and draw its details	2	7S-A-6.2.4	25/08/2022		
2	Market Survey for Light Sources	1	7S-A-6.3.6	22/09/2022		
3	Market Survey for various types of lamps	1	7S-A-6.4.6	06/10/2022		



**Ar. Babita P. Bijwe**  
(Teacher Incharge)



## Course Outcomes (CO) Blooms Taxonomy



## Program Outcomes (PO) Blooms Taxonomy

1. **Knowledge** -Understanding about role of various knowledge domains such as humanities, technology, and environment in design of built environment.
2. **Principles & Theory**- Knowledge of principles of architecture & theoretical knowledge and its application in design.
3. **Creativity** - Creative and design thinking ability.
4. **Practice** - Ability to understand real life situation of Architectural Practice and to work with ethical and professional responsibilities.
5. **Collaborative Working** -Ability to communicate effectively and work in interdisciplinary groups.
6. **Inclusivity** -Sensitivity in design for inclusivity, equity, environment, diverse cultures, and heritage.
7. **Technological Knowhow**-Ability to review, comprehend and report technological developments in the profession of architecture and construction.
8. **Ability to choose Area of Specialisation or Practise**- Able to judge one's area of interest and accordingly choose the field of practice.

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. SEVENTH SEMESTER (CBS)**  
**INTERIOR DESIGN (7S-AA-1)**

**Objective-** The goal of interior design is to improve the user experience by better managing the space available in the intervened environment.

**TEACHING SCHEDULE (2022-2023)**

<b>Theory + Practical</b>		<b>Marks</b>
College Assessment		100
University Examination		--
<b>Reference Text Books</b>		
A.	Interior design, principles and practice	M.Pratap Rao
B.	Indian Interiors	Angelika Taschen
C.	Designing the wood	Carol Soucele
D.	Interior Lighting For Designers	Gary Gordon
E.	Creative Interiors	Shashi Jain

<b>Studio Details</b>						
<b>Sr. no.</b>	<b>Topic</b>	<b>Refer. Books</b>	<b>No. of Lectures Planned</b>	<b>Probable Dates of Teaching</b>	<b>Actual Dates of Teaching</b>	<b>No. of Lectures Taken</b>
1.	<b>Introduction</b> to interior design, historical background. Style, elements, principals.	A,B	09	27/07/2022 04/08/2022 11/08/2022		
2.	<b>Furniture design</b> Need of furniture as an aid to enhance activities, study of various furniture in isolation and in combination. Introduction of assignment no.1 based on topic.	C	09	11/08/2022 18/08/2022 25/08/2022		
3.	Introduction of assignment no. 2 to design <b>complete interior</b> with detail drawing of given project with concept.	A,B,C, D,E	18	01/09/2022 15/09/2022 22/09/2022 29/09/2022 06/10/2022 13/10/2022		

Ar. Wani Takkamore  
(Teacher Incharge)

*B.N. Raut*  
Ar. Bhavana N. Raut  
(Teacher Incharge)

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**  
**DEPARTMENT OF ARCHITECTURE**  
**B.ARCH. SEVENTH SEMESTER (CBS)**  
**INTERIOR DESIGN (7S-AA-1)**

**Objective-** The goal of interior design is to improve the user experience by better managing the space available in the intervened environment.

**TEACHING SCHEDULE (2022-2023)**

<b>Theory + Practical</b>		<b>Marks</b>
College Assessment		100
University Examination		--
<b>Reference Text Books</b>		
A.	Interior design, principles and practice	M.Pratap Rao
B.	Indian Interiors	Angelika Taschen
C.	Designing the wood	Carol Soucele
D.	Interior Lighting For Designers	Gary Gordon
E.	Creative Interiors	Shashi Jain

<b>Studio Details</b>						
<b>Sr. no.</b>	<b>Topic</b>	<b>Refer. Books</b>	<b>No. of Lectures Planned</b>	<b>Probable Dates of Teaching</b>	<b>Actual Dates of Teaching</b>	<b>No. of Lectures Taken</b>
1.	<b>Introduction</b> to interior design, historical background. Style, elements, principals.	A,B	09	27/07/2022 04/08/2022 11/08/2022	28/07/2022 04/08/2022 08/08/2022	08
2.	<b>Furniture design</b> Need of furniture as an aid to enhance activities, study of various furniture in isolation and in combination. Introduction of assignment no.1 based on topic.	C	09	11/08/2022 18/08/2022 25/08/2022	26/08/2022 01/09/2022 08/09/2022	09
3.	Introduction of assignment no. 2 to design <b>complete interior</b> with detail drawing of given project with concept.	A,B,C, D,E	18	01/09/2022 15/09/2022 22/09/2022 29/09/2022 06/10/2022 12/10/2022 19/10/2022 03/11/2022	15/09/2022 22/09/2022 29/09/2022 06/10/2022 12/10/2022 19/10/2022 03/11/2022	17
4.	<b>Total no. of classes</b>					<b>34</b>

Ar. Wani Takkamore  
(Teacher Incharge)

*J.N. Raut*  
Ar. Bhavana N. Raut  
(Teacher Incharge)

**KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK**

**Elective-B: Valuation (7S-AA-2)  
SEVENTH SEMESTER**

The aim of this subject is to expose the student to the most important part of his profession which is known as valuation. The Study shall include the topics as under:

**Unit I:** Aims and objectives of Valuation in respect of Building and land.

**Unit II:** Essential characteristics of value, regarding the building.

**Unit III:** Factors affecting the value of built up property-supply and demand, cost of reproduction, occupation of value.

**Unit IV:** Methods of valuation, such as rental method of valuation, land building basis, development method of valuation, valuation for rating purpose, valuation for Govt Taxation, valuation for mortgage.

**Unit V:** Objectives and principles of valuation tables.

**Unit VI:** Drafting Valuation Report.

Sessional: Notes, exercises on the above topics. Study and preparation of valuation report.

**TEACHING SCHEDULE (7S-AA-2) 2022-23**

Course Title & Code:	Building Services-IV (7S-A-3)			
In charge Faculty:	Ar. Pratik P. Purkar			
<b>Scheme of Examination</b>				
<b>Theory</b>	<b>Marks</b>	<b>Practical</b>	<b>Marks</b>	
College Assessment	100	College Assessment	-	
University Examination	-	University Examination	-	
Duration of University Theory Examination: 03Hours				
Total Load per week: 3	L = 1	T = 1	D = 1	S/P =
Total Credits: 3	L = 1	T = 1	D = 1	S/P =
<b>Reference Text Books</b>				
A	Theory & Practice of Valuation by	By. R. Namavati.		
B	Valuation of Real Properties by	By. S. C. Rangwala.		
C				
<b>Other Text Books of Interest</b>				
1				
2				

## LECTURE DETAILS (7S-AA-2) 2022-23

Sr. No	Unit	Topic	Course Outcome	Scheduled Date & Classes	Actual Date & Classes
1	Unit I: Aims and objectives of Valuation in respect of Building and land.	Value Cost Price & Valuation	2.1.1		07/09/22 (1)
		<ol style="list-style-type: none"> <li>1. Buying or Selling property</li> <li>2. Security of loans</li> <li>3. Rent fixation</li> <li>4. Insurance</li> <li>5. Taxation</li> <li>6. Compulsory acquisition</li> <li>7. Betterment charges</li> <li>8. Speculation</li> <li>9. Court fees</li> <li>10. Gift tax</li> <li>11. Balance sheet</li> </ol>	2.1.2		07/09/22 (2)
2	Unit II: Essential characteristics of value, regarding the building.	<ol style="list-style-type: none"> <li>1. Market value</li> <li>2. Book value</li> <li>3. Scrap value</li> <li>4. Salvage value</li> <li>5. Accommodation value</li> <li>6. Distress value</li> <li>7. Monopoly value</li> <li>8. Replacement value</li> <li>9. Investment value</li> <li>10. Sentimental value</li> <li>11. Speculative value</li> <li>12. Annual value</li> <li>13. Potential value</li> <li>14. Occupation value</li> <li>15. Present value</li> </ol>	2.2.1		21/09/22 (3)
3	Unit III: Factors affecting the value of built up property-supply and demand, cost of reproduction, occupation of value.	<ol style="list-style-type: none"> <li>12. Nature of structure</li> <li>13. Life</li> <li>14. Maintenance</li> <li>15. Location</li> <li>16. Bank interest</li> <li>17. Legal control</li> <li>18. Supply and demand</li> <li>19. Purpose of valuation</li> </ol>	2.3.1		28/09/22 (1)
		<ol style="list-style-type: none"> <li>Purpose of valuation</li> <li>1. Demand and supply</li> <li>2. Maintenance</li> <li>3. Rise in population</li> <li>4. Abnormal condition</li> <li>5. Cost of construction</li> </ol>	2.3.2		07/09/22 (2)

		6. Purpose of purchase 7. Town planning Act 8. Climatic condition 9. Life 10. Improvement by public schemes 11. Migration 12. Interest of schedule banks			
4	Unit IV: Methods of valuation, such as rental method of valuation, land building basis, development method of valuation, valuation for rating purpose, valuation for Govt Taxation, valuation for mortgage.	A. Valuation methods for property 1. Rental method 2. Land and building based method 3. Profit based method 4. Development method	2.4.1		12/10/22 (2)
		B. Valuation method for open land 1. Comparative method 2. Hypothetical method 3. Belting method	2.4.2		12/10/22 (1)
5	Unit V: Objectives and principles of valuation tables.		2.5	12/11/22 (5)	12/11/22
6	Unit VI: Drafting Valuation Report.		2.6	18/11/22 (5)	18/11/22

#### ASSIGNMENT / TASK DETAILS (2022-23)

Unit No.	Assignment/ Question/Problem	Course Outcome	Program Outcome	Applicability in the field/exam
6	Case study & Valuation Report.	7S-AA-2.6	PO-1	Practice, Profession.

*Ar. Pratik P. Purkar*

**Ar. Pratik P. Purkar**