

DESIGN  
STRUCTURES  
CONSTRUCTION V  
WORKING DRAWING I  
THEORY OF ARCHITECTURE  
BUILDING SERVICES  
SPECIFICATION  
COMPUTER APPLICATION  
GREEN ARCHITECTURE  
A.P.T

**FIFTH**  
**SEMESTER**  
Year 2021 – 2022

**Index**

**Introduction**

**Policy for Students**

**Fifth Semester Faculty**

**Scheme of Examination**

**Submission Calendar**

**Teaching Program**

- 1. Architectural Design-IV**
- 2. Construction Technology & Materials –V**
- 3. Structural Design & Systems –V**
- 4. Building Services –II**
- 5. Architectural Graphics-V**
- 6. Theory of Design-II**
- 7. Specifications**
- 8. Elective A- Computer Application II**
- 9. Elective B- Appropriate technology**
- 10. Elective B–Landscape Design Studio**

**In Charge: - Ar. Sneha Mandekar Tirale**

**Class Coordinators**

Section A- Ar. Mrinmayee Tiwari

Section B- Ar. Sneha Mandekar Tirale

**Architectural Design**

**Coordinator:** Ar. Sneha Mandekar Tirale

Team- Dr. Neeta Lambe, Dr. Pratima Dhoke, Ar. Sneha Mandekar Tirale,  
Ar. Mrinmayee Tiwari

**Construction Technology & Materials –V**

**Coordinator:** Ar. Mrinmayee Tiwari

Team - Dr. Neeta Lambe, Dr. Pratima Dhoke, Ar. Sneha Mandekar, Ar. Mrinmayee Tiwari

**Structural Design & Systems –V**

Subject Teachers Mr.Rupal Wadegaonkar

**Building Services II**

Subject Teachers - Ar. Anuradha Bhute, Ar. Mrinmayee Tiwari

**Architectural Graphics-V**

**Coordinator:** Ar. Harpreet Saggi

Team – Ar. Sanjivaneer Mohgaonkar, Ar.Anuradha Bhute, Ar. Vaijayanti Yadav, Ar. Harpreet  
Saggi

**Theory of Architecture**

Subject Teachers – Prof. Sujata Godbole, Ar. Sneha Mandekar Tirale

**Specification**

Subject Teachers – Ar.Anuradha Bhute, Ar. Sneha Mandekar

**Elective A-Computer Applications II**

Subject Teachers – Astral - Ar. Vaijayanti Yadav, Ar. Mrinmayee Tiwari

**Elective B- Appropriate Technology**

Subject Teachers – Ar. Shobhana Temburnikar, Ar. Poomima Deshpande

**Elective B: Landscape Design Studio**

Subject Teachers - Ar. Sneha Mandekar Tirale

## **Vision**

The vision limits to the present situation or at best for the near future. We should mention that we equip students to venture into the future.

Our vision is to reach global standards by deliberate modernization without losing the essential characteristics of our tradition. Being a women's college we find it more pertinent to imbibe both these qualities very consciously in our girl students.

We wish to produce socially responsible architects with sensitivity towards social issues of immediate contexts, national concerns and global effects and positive and creative approach towards life.

## **Mission**

To create an educational environment in which students are prepared to meet the challenges of a fast developing and changing world.

Hence the students are equipped with:

- Up to date knowledge
- Analytical and practical skills
- Creative approach towards everything that they undertake
- Attitude to be sensitive towards national, social and environmental issues

While addressing the global challenges we believe strongly in anchoring ourselves to the immediate context. We accept gratefully our role in preserving and enhancing Vidarbha and Nagpur- the place, its people and architecture.

## **Core Values**

- |              |                 |              |
|--------------|-----------------|--------------|
| • Integrity  | • Creativity    | • Innovation |
| • Discovery  | • Collaboration | • Respect    |
| • Discipline | • Excellence    | • Diversity  |

## **Objectives**

- To develop among students academic and Professional competency.
- To foster value-based, creative and critical learning
- To hone skills of living in a technological, globalized and ecologically aware environment
- To develop culture of commitment to excellence

## **Code of Conduct**

**Punctuality-** It is mandatory for students to be punctual in the college and shall have to be present every day at 8.45 a.m.. Every student is expected to attend the morning assembly. Attendance of the students will be taken at the time of assembly by respective class co-ordinators.

The attendance will also be taken at the beginning of the classes in the afternoon after lunch break. The record of attendance shall be displayed at the end of each month for students. Every student is expected to go through the displayed attendance and request rectification of the record within 8 days by talking to the class teacher if her attendance has been wrongly recorded.

In case of absentism, student shall bring a letter of absence duly signed by her parents/guardian. However, a student having less than 75% attendance will face disciplinary action and will not be permitted to appear for University Examination.

**Dress Code** – Salwar suit/ Jeans /Leggings with long Kurti.

**Extracurricular activities**- Credits are allotted to each activity and students are required to attend the activities to earn these credits.

Every student has to attend the programmes organized by the college from time to time.

Attendance for programme of 26<sup>th</sup> January and of 15<sup>th</sup> August is mandatory for every student and the dress code a white Salwar Suits/Leggings with Long Kurti.

Study tours- Every year study tours are arranged for students of different years as per their curriculum requirements. Active participation in Study Tour is necessary.

### **Academic Performance**

Submission schedule of all the subjects of a semester will be displayed at the beginning of the session. Students must follow the submission schedules given by respective subject teachers. No late submissions will be accepted after the scheduled date.

### **Midterm assessment**

A midterm assessment will be conducted to assess the progress of a student. It is mandatory for all the students to appear for this assessment.

### **Student Council**

The Student Council will be formulated for the main purpose of empowering the students. Having a formal setup of a Student Council enables students to organize and conduct certain activities, co-ordinate publications like 'Her Space', and properly convey any concerns students may have to the college administration and teaching faculty.

The student council also takes the lead in organizing and coordinating many events in the academic year – like daily assembly, Republic day and Independence day celebrations, NASA, Teachers Day,

Archiventure, Women's day celebration and all other major events conducted by the college.

The structure of the council is such that students from all years find representation in it. The team is headed by fourth year students with representative from first, second and third year. Third year students take over the reins when fourth year students go for their training in the 8th semester. Final year students act as mentors to the council.

The organization set up for student council will comprise of President, Vice-president, Secretary, Vice-secretary, Treasurer. In addition, there are Class Representatives from first and second year – one representative from each of the three sections in a year.

SCHEME OF EXAMINATION																			
THIRD YEAR B.ARCH.																			
Semester - 5																			
Sr. No.	Sub. Code	Sub. Name	Category	Board	Load Per Week					Credits					Paper/ Sessional	Duration in Hours	Max. Marks	Total Marks	Min. Pass Marks
					L	T	D	S/P	Total	L	T	D	S/P	Total					
1	5S-A-1	Architectur	DC	AR	2	0	0	5	7	2	0	0	5	7	Sessional		100	100	100
														Viva-voce		100	100		
2	5S-A-2	Constructi on	DC	AR	2	0	4	0	6	2	0	4	0	6	Sessional		100	100	50
														Paper	3	100	100	40	
3	5S-A-3	Structural E	ES	AR	2	1	0	0	3	2	1	0	0	3	Sessional		30	100	40
														Paper	3	70			
4	5S-A-4	Building Se	DC	AR	1	1	0	0	2	1	1	0	0	2	Sessional		30	100	40
														Paper	3	70			
5	5S-A-5	Architectur (Working Drawing)	DC	AR	1	0	1	0	2	1	0	1	0	2	Sessional		50	100	50
														Viva-voce		50			
6	5S-A-6	Theory of A	DC	AR	1	0	0	1	2	1	0	0	1	2	Sessional		50	50	25
7	5S-A-7	Specificati on	DC	AR	1	0	1	0	2	1	0	1	0	2	Sessional		50	50	25
8	5S-AA-1	Elective a	DE	AR	1	0	2	0	3	1	0	2	0	3	Sessional		100	100	50
9	5S-AA-2	Elective b	DE	AR	1	0	2	0	3	1	0	2	0	3	Sessional		100	100	50
<b>TOTAL</b>					<b>12</b>	<b>2</b>	<b>10</b>	<b>6</b>	<b>30</b>	<b>12</b>	<b>2</b>	<b>10</b>	<b>6</b>	<b>30</b>			<b>1000</b>	<b>1000</b>	<b>470</b>
<b>Total Paper-4, sessionals- 7 , viva voce-1 (Passing heads- 12)</b>																			
Elective a -	Building Automation Systems/Advanced Building Materials/Specialised Services/Computer Applications-II																		
Elective b -	Appropriate Technology/Eco Friendly Architecture/Regional Architecture/Sustainable Development/Green Architecture																		
	Landscape Design Studio																		

## ARCHITECTURAL DESIGN-IV

**Design Co ordinator:** Ar. Sneha Mandekar Tirale

**Teacher's In charge:** Dr. Neeta Lambe, Dr. Pratima Dhoke, Prof. Sneha Mandekar Tirale, Prof. Mrinmayee Tiwari, Prof. Vaijayanti Yadav

**Dates:** 01<sup>st</sup> ,06<sup>th</sup> , 08<sup>th</sup> , 13<sup>th</sup> , 15<sup>th</sup> , 20<sup>th</sup> , 22<sup>nd</sup> , 27<sup>th</sup> ,29<sup>th</sup> Sept ; 4<sup>th</sup> , 6<sup>th</sup> , 11<sup>th</sup> , 13<sup>th</sup> , 18<sup>th</sup> , 20<sup>th</sup> , 25<sup>th</sup> , 27<sup>th</sup> Oct

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The students of 5<sup>th</sup> semester are at a very crucial stage of their curriculum. Until now, they have learnt the basics of architectural design in their first and second year of architecture. The students are now equipped with the understanding of the varied activities, their inter relationships, circulations within and basics of site development. So, now in this semester, students will become aware of the aspects of the architecture like climatology, landscaping and basic building services.

### Introduction

Education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development. Providing universal access to quality education is the key to India's continued ascent, and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration, and cultural preservation. Students in the higher grades are under great pressure to meet the increasing demands for learning, imposed by the education boards and their constant and continuous evaluation systems. In fact, at home there is no atmosphere for serious studies. These are some of the reasons revealed from the student survey, why our children prefer a hostel for systematic learning for a successful life. No wonder why we decided to start a student's hostel – not as a service to students and parents, but as our duty to help them achieve their best dreams.

A hostel is like a family of students with the superintendent as the head. Students develop a sense of friendship and fellow feeling. Students learn the value of discipline. It teaches them a sense of responsibility in matters of taking care of books, clothes and health. Students do all the works with their own hands, thus becoming self-dependent. Mutual cooperation, sympathy, and love are characteristics of hostel life. It will not be an exaggeration to say that only a hostel is the place where an all-round development of personality is possible.

It is equally important to find time for using a library and reading room, play grounds, health club, swimming pool and getting trained to improve their skills and achieve wholesome development. Teachers have direct watch and supervision over the students in the hostels. Special classes can be arranged by asking teachers to stay in hostel to help weak students. Studying away from home opens up a world of exciting learning possibilities like combine studies, mutual discussions, criticism, or

debating, etc., that add charm to hostel life. Good arrangements of games and sports, Sunday specials and eating competitions, and day-to day merry-making, make the hostel life a thing of envy for all. In a hostel, a student comes in contact with a number of other students.

Hostel life not only develops the spirit of healthy competition, but also teaches the lesson of mutual cooperation. A well-managed hostel is sure to prove a blessing for those who are lucky enough to live in it. With this as a base, the theme identified for this year's 5th semester design project is designing **Girl's Hostel** with respect to revised **National Education Policy system**.

## **AIM**

To make students understand the relationship of modular spaces and non-modular spaces through hostel design.

## **OBJECTIVE**

The main objective of fifth semester design projects is to study the following characteristics –

- CO1 - To study the functional aspects of hostel design with good architectural aesthetic sense.
- CO2 - To understand the modular coordination through hostel design.
- CO3 - To understand climatic aspects with respect to the site and construction/ material aspect with respect to the building.
- CO4 - To understand the services required for the hostel building and detailing of it.
- CO5 - To understand the representation of the design in terms of its form, function, and environment so created through 2D & 3D views.

The hostel block will have an average occupancy of 200 students each. When designing the overall form and distribution of the hostels, detailed consideration has to be given to modular planning, orientation, prevailing winds, and the campus Master plan stipulation to maximize the opportunity for mutual shading of buildings and other such considerations. Following are the requirements –

## **Design Stages –**

**Stage I:** Introduction of the Design problem (Understanding of the theme and related issues)

**Stage II:** Case Study & Data Collection (Study of Context, Climate, Topography, Building Planning & Circulation etc.)

**Stage III:** Analyzing the data and preparation of Design Program



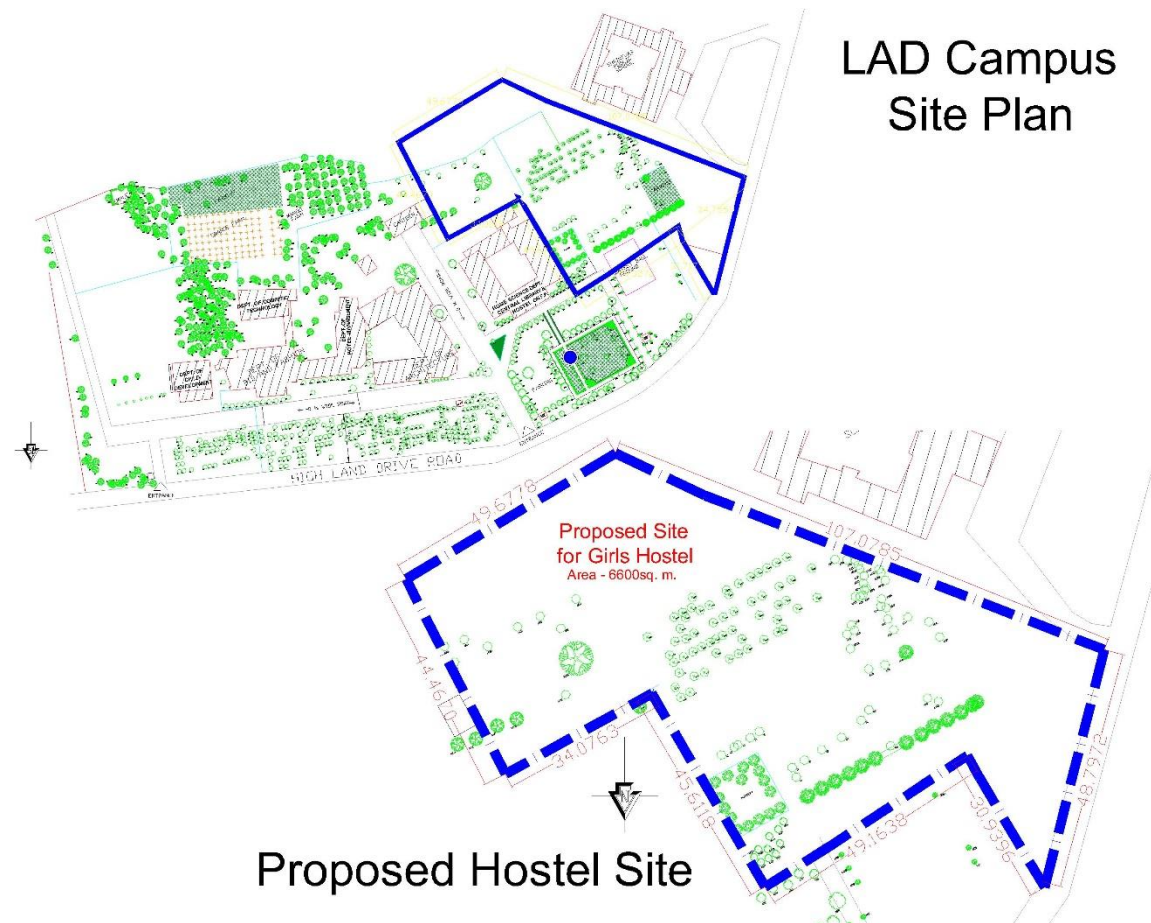
**Stage IV:** Architectural Interventions (Design intervention in terms of Hostel layout with required utilities and detailing of units with materials and construction techniques etc.)

**Stage V:** Architectural Design Drawings & Architectural Detailing (To study site level services, building level services and infrastructural services, materials, construction techniques etc. required to support design interventions)

## SITE PLAN AND ITS FEATURES

The selected site is L. A. D. College Campus, Seminary Hill Nagpur. The total site area of the campus is 26 acres. As the 5th semester students will work on designing hostel considering future requirement of the campus, the selected site is adjacent to the existing hostel. The site is mostly flat and near to the second entrance gate of the campus.

### Existing Site plan



## Studio Modalities –

DATE	MODULE	TASKS	STUDIO DISCUSSION	EXPECTED WORK
1st week of September	Introduction of the Design problem	Analyzing various similar types of typology	Discussion	Finding & Selection of similar typology
2nd week of September	Case Studies - Understanding of various Hostel typology	Analyzing Planning requirements of hostel	Understanding the issues and challenges of hostel for students and various users. Discussion on implemented projects	Inferences drawn from case studies & submission of case studies exercise
2nd week of September	Introduction of the Site & related area calculation considerations	Area Calculations	Discussion on the site details	Individual detailing of areas required & Formulation of Design Program
<b>Submission of Case Studies on 08/09/21</b>				
3rd & 4th week of September	Design Program & Data collection	Discussion on Design Program & Data collection	Mentor Wise Discussion	Inferences drawn, Data collection & detailing of design brief compiled on A1 sheet
1st week of October	Creative Exercise on Modules - Sub Module/Super Module	3D Modules to be created and addition/subtraction of modules	Discussion on Composition & Form	3D Model
2nd week of October	<b>REVIEW I - Site Analysis, Design Program, Design options ( Grades to be given )</b>			

2nd week of October	Architectural Design intervention	<ul style="list-style-type: none"> <li>• Concept Evolution and Zoning</li> <li>• Plan Formation</li> <li>• No. of modules to be accommodated</li> <li>• No. of students to be accommodated = 200</li> <li>• Room layout &amp; Room designs</li> <li>• <b>Mandatory Rooms needed -</b>            Single seater room - 50            Triple Sharing room with attached toilet - 18            Triple Sharing room without attached toilet - 35</li> </ul>	Discussions on design options	A1 Size Sheet / Alternatives of Site plan & Hostel all floor plans
<b>3rd week of October</b>	<b>Review II - Concept Evolution / zoning, Cluster layout (Grades will be given)</b>			
3rd week of October	Architectural Detailing	Presentation & Detail drawings of <ul style="list-style-type: none"> <li>• Site Plan</li> <li>• Plans of Amenities</li> <li>• Services Plan</li> <li>• Elevations, Sections &amp; Views</li> <li>• Detailing of materials &amp; Construction techniques</li> <li>• Detailing of amenities &amp; services</li> <li>• 3D Model</li> </ul>	Discussion on design detailing and views	Detail Drawings to be produced in A1 Sheets
<b>4th week of October</b>	<b>Final Submission – (Full portfolio)</b>			

**Evaluation Scheme –**

<b>Attendance (20 Marks)</b>	<b>Minor Project (20 Marks)</b>		<b>Major Project (50 Marks)</b>			<b>External Jury (10Marks)</b>	<b>Total Marks</b>
	Review 1	Final Submission	Review 1	Review 2	Final Submission		100
<b>20</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>30</b>	<b>10</b>	<b>100</b>

## Construction Technology & Materials –V

Team :- Dr. Pratima Dhoke, Dr. Neeta Lambe, Ar. Mrinmayee Tiwari, Ar. Sneha Mandekar

### Objectives/ Course outcomes

1. Understanding the concepts of Suspended Ceiling Design considerations, methods of construction & materials Various products available in market, various techniques used for water proofing of various structural members.
2. To study the design considerations for Expansion Joints materials, methods of construction
3. To learn Design of foundations as per the soil conditions. Study of Types of piles w.r.t to material, method of construction
4. Understanding of Earthquake & Earthquake Resistant Building Design.
5. Use of Different type of paints & varnishes
6. R.C.C roofing systems, North light roofing, Skylights in R.C.C Coffered /Grid slabs, Flat & Flat plate slabs, lift slab

TOPICS	OBJECTIVES	DATE/TIME REQUIRED	SKETCH BOOK	SITE VISIT/MARKET SURVEY	AUDIO VISUAL	INTERACTIVE TEACHING	EXPECTED OUTPUT/Date of submission
<b>Unit-II Expansion Joints 17, 19 Aug 2021</b>	To study the design considerations for Expansion Joints To study materials and methods of constructing-expansion joints in building.(Framed structure and load bearing)	<b>6 hours</b> 4 hr- introduction to the topic. 2 hrs.- sketches	Sketches of details seen from book	Site visit to three different locations for showing the expansion joint methods for different building elements. (will be decided as per availability)	Explaining basic concepts , materials adopted and constructional details	Clarifying the queries if any.	Sketch book, tutorials and test

<p><b>Unit-III Types of foundation</b></p> <p><b>24, 26, 31 Aug 2021</b></p>	<p>To study soil conditions and suitability of foundations on particular type of soil.</p> <p>To study different types of foundation like Steel grillage footing, R.C.C. strip, raft and cellular foundation. Machine Foundation etc and their suitability as per the soil conditions.</p>	<p><b>6 hours</b></p>	<p>Sketching types of foundation depending upon the soil conditions, load distribution etc.</p>	<p>Visit to Geotech lab, Nagpur. Visit to three different sites with different types of foundation. (will be decided as per availability)</p>	<p>Audio visual presentation explaining in detail types of foundation. Criteria for selection of foundation type as per the soil condition and the load behaviour of the structure.</p>	<p>Clarifying the queries</p>	<p>Sketch book, tutorials and models</p>
<p><b>Pile foundation</b></p> <p><b>2, 7 Sep 2021</b></p>	<p>To study the types of piles with respect to material, method of construction like Piles In Timber, Steel and R.C:C. (Pre-cast and Cast-in situ) R.C.C. Under- rimmed piles, pile caps etc.</p>	<p><b>3 hours</b></p>		<p>Site visit to be finalised as per availability.</p>	<p>Power point presentation for understanding the decision to recommend pile foundation on site. Understanding the methods of construction. Types of pile foundations</p>	<p>Discussion on site visit experience and clarifying the queries if any.</p>	<p>Sketch book and tutorials</p>

<p><b>Unit-IV Earthquake</b> 9, 14, 16 Sep 2021</p>	<p>To study the earthquake zones in India. To understand the terminologies related to Earthquakes and its effects on buildings.</p> <p>To study Architectural design considerations.</p>	<p><b>6 hours</b></p>	<p>Study of earthquake incidences and their effects on bldgs., Sketches</p>		<p>Audio visual presentation explaining in detail the various seismic zones in India, reasons &amp; behavior of earth during earthquake, its effects on bldgs., Bldg, design considerations.</p>	<p>Clarifying the queries</p>	<p>Sketches and notes.</p>
<p><b>Unit-V DPC and Water Proofing</b> 21, 23, 28 Sep 2021</p>	<p>To study Waterproofing with respect to old and new materials. To study methods of water proofing for roofs, slabs, foundations), basements, swimming tanks etc.</p>	<p><b>6 hours</b> 1 hr- introduction to the topic. 2 hrs.- Site visit 3 hrs.- site visit report Plate</p>	<p>Collecting photographs of effects of dampness in bldgs.</p>	<p>Site visit to explore the application of damp proof compound chemicals during construction Seeing practically various techniques and methods adopted on site by contractors and architects (gained through experience) to keep the construction damp proof and water proof.</p>	<p>Explaining the difference between water proofing and damp proofing Techniques used during construction to avoid water percolation Various materials used from traditional time to present day, etc.</p>	<p>Clarifying queries if any</p>	<p>Plates and Site visit report.</p>

<b>Unit-VI Plaster and finishes</b> <b>5 Oct 2021</b>	To study the different type of plaster and finishes	<b>6 hours</b> + market survey 1 hr- introduction to the topic. 2 hrs.- expert lecture with demonstration. 3 hrs.- report compilation.	Collecting examples from magazines and newspapers.	Collecting samples from market	Explaining explicitly the applicability of various types of plastering techniques and finishing styles used in construction	Discussing on the new methods adopted . Discussing on the brochures collected through market survey.	Market survey and hands on experience report.
<b>Paints and Varnishes</b> <b>7 Oct 2021</b>	To study the different type of paints and varnishes, their composition, properties, preparation  Method of application and suitability on different surfaces.	<b>26 Sep-</b> Introduction to topic <b>3 hours</b> <b>27 Sep</b> Discussing issues like the properties, characteristics, application and availability in detail.	Collecting the data on the use of paints and varnishes for different locations (specific for India)	Collecting samples from market	Types of paints and varnishes available. Basic difference between the two. Change in applicability with respect to context and site requirements.	Discussing issues like the properties, characteristics, application and availability in detail.	Market survey report & tutorial
<b>Roofs</b> <b>12 Oct 2021</b>	To study R.C.C roofing systems, North light roofing, Skylights	<b>6 hours</b>	Sketching types of roofing with respect to context.		Explaining the types of roofs and reason for different forms	Discussion on behaviour of roof with reference to the material	Sheet



	in R.C.C Coffered /Grid slabs, Flat and Flat plate slabs, lift slab etc.		Preparing conceptual models to understand the behaviour of roof and the load distribution from simple supported to supporter.		with respect to place. Structural behaviour Materials and techniques adopted in construction field	specification and technique.	
<b>Unit-I False ceiling 17, 19, 24, 26, 31 Oct 2021</b>	To understand the concepts of Suspended Ceiling  Design considerations, methods of construction & materials used concealed lighting A.C. ducts inlets and outlets, patent systems like Gypboard, Luxalon ceilings etc.	<b>8 hours</b> class + site visit and market survey 2 hours- introduction- presentation on onsite work	Creative exercise-generating options for false ceiling design for a commercial activity. Unit of fixing details with materials Identifying various materials available in market w.r.f fixing angles, suspenders, ceiling covering materials, lighting, A.C ducts etc.	Options for false ceiling design.	Application of materials and techniques used for false ceiling designs with respect to change in context and variation in typology.	Model making and site visit Learning through observation and collection of materials.	Sketches, site visit report, conceptual model, market survey and sheet plate. Model making and plate on the design problem with ceiling design, materials and fixing details.
<b>FINAL PORTFOLIO SUBMISSION</b>							

## Assignments

Sketch book	Model	Site Visit	Tutorials	Market Surveys(material)
Quality of Sketches	Scale & Proportion	Que. Regarding visit	No. of questions	Format for surveys
Proportion	Material	(As time and situation permits)		

## Evaluation scheme

	CO1	CO2	CO3	CO4	CO5	CO6	Sessional	Attendance	TOTAL
	U-1	U-2	U-3	U-4	U-5	U-6			
Max. Marks	10	10	10	5	5	20	30	10	100
	Sketches	Tutorials/ Sketches	Tutorials	Test	Sketches	Plates, Model and sketches			

**Note:** Submissions of the given assignments will be expected at the completion of each topic in the following drive.

[https://drive.google.com/drive/folders/1j-ZbCUiFZ-4Pd8WqVr8-xo5a\\_5l9l-t?usp=sharing](https://drive.google.com/drive/folders/1j-ZbCUiFZ-4Pd8WqVr8-xo5a_5l9l-t?usp=sharing)

## STRUCTURAL DESIGN & SYSTEMS –V

Teacher Incharge: Prof. Rupal Wadegaonkar

Aug :- 23, 30

Sept:- 6, 20, 27

Oct: 4, 11,18,25

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CO 1 - Study of Structural properties of Concrete & Reinforced Concrete .

CO2 Learning Concepts in RCC Design:Elastic, Ultimate Load, Limit State

CO3 To study Different Limit states, partial safety factors, permissible stresses.

CO4 To understand Design of Singly Reinforced RCC Sections To learn Design of doubly reinforced sections.

CO5 To learn Design of 'T' and 'L' beam sections.

CO6 To study Design of shear reinforcement in beams. Studying Design of RCC Sections in Tension Study of IS 456 – Section III – Design Considerations

Unit	Dates	Topics
I	23 <sup>rd</sup> , 30 <sup>th</sup> Aug, 6 <sup>th</sup> Sept	Properties of concrete, Concept of R.C. C, Elastic, Ultimate load Theory, Limit State Theory
II	20 <sup>th</sup> , 27 <sup>th</sup> Sept	Design of singly reinforced concrete, Doubly reinforced Concrete
III	4 <sup>h</sup> , 11 <sup>th</sup> Oct	Design of T beam, L beam
IV	18 <sup>th</sup> , 25 <sup>th</sup> October	Design of shear reinforcements, R.C.C Sections in tension

## BUILDING SERVICES II

Subject Teachers –Ar. Anuradha Bhute, Ar. Mrinmayee Tiwari

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The second part of building services approaches with increased complexity and direct relation to design. This is a continued version to previous semester with a larger magnitude wherein you get the information related to large campuses, complexes, high rise buildings and special uses like swimming pools and firefighting. This semester is not only a theory-based subject but you also need to design and handle the services layouts of larger scale projects.

### Aim

The aim of the subject is to acquaint you about the importance, installation and working of various services related to campuses and high rise buildings. The scope lies in water services, sanitation, electrical services, storm water drainage and rain water collection and disposal.

### Course Outcomes

The objective of the subject is not only to transmit knowledge but to provide a deeper insight into the subject by following various physiological, psychological and sociological bases of education.

**CO1** Knowing Importance, installation & working of various services related to campuses & high-rise buildings. (Assignment)

**CO2** To understand the importance of sustainability which can be achieved by Building Services. (tutorial1)

**CO3** Services for special uses like swimming pools, firefighting. Learning Importance of water& collection of Rain water & different active & passive techniques of RWH (Tutorial)

**CO4** To understand Water services, sanitation, electrical services, storm water drainage & rain water collection & disposal at global level. (Project/ Plates)

**CO5** Calculating quantities of water required for various activities & ways to conserve water for future. Active systems in hot water supply, various piping materials & provision in for multi-story buildings. Understand about the demand & calculate the capacities of storage tank. (Test)

Date/Week	Topic	Learning Objectives	Input	Expected Output
17 Aug 2021	Rain water harvesting	To spread awareness about the importance of water and collection of Rain water To inform them about different active and passive techniques of RWH	Lecture & Interaction	Tutorial 1

		<p>To accustom them with the space requirements and piping system and capacity of storage tanks used for collection</p> <p>To teach them about the methods of treating and reusing the rain water for various purposes</p>		
24,31,7 Aug 2021	Electrical services, various wiring systems, calculations and distribution of loads, electric fittings and appliances, detailed layout of electrical services in a residence	<p>To acquaint the students with basic electrical services at domestic level</p> <p>To provide knowledge about the basic wiring systems and their applicability in a residence.</p> <p>To make students able to design an electrical layout for given plan and do the load calculations.</p> <p>To introduce them to the solar energy and solar panels for generating electricity.</p>	Lecture & Demonstrations	Sheets
14, 21 Sep 2021	Schematic water distribution system from treatment plants to town, group housing etc. computing demand for group housing scheme and high-rise buildings. Design of storage and distribution system. Detailed layouts of water supply systems	<p>To acquaint students to complex water supply services.</p> <p>To teach them different types of layouts of water supply and their applicability in design.</p> <p>To make them understand the plumbing system for multi-storey buildings and calculations for water demand.</p>	Lecture & Demonstrations	Sheets
28 Sep 2021	Computing special demands of water for swimming pools, air conditioning, firefighting, street washing, fountains and gardens etc.	To make them aware of quantities of water required for various activities and ways to conserve water for future.	Lecture & Demonstrations	Test
5 Oct 2021	Hot water supply in high rise buildings, boilers, furnaces, solar water heaters.	<p>To teach them about the active systems in hot water supply.</p> <p>To introduce them to various piping materials and the impact of hot water on them (Heat radiation and thermal conductivity)</p> <p>To make the understand about the demand and calculate the capacities of storage tank</p> <p>To introduce different terminologies related to hot water supply and their applicability in multi-storey buildings.</p>		Test

12, 19, 26 Sep 2021	Sewage collection and disposal for large campuses, complexes, high rise buildings etc. Mechanical methods of removing sewage from special areas like basement (shone's ejector).	To acquaint them with sewage treatment process and introduce them the concept of smart city To teach them of latest STPs and their processes developed by different organisations To introduce them to smart neighbourhoods by teaching different disposal methods To educate them about mechanical collection and disposal of sewage from basement	Lecture & Demonstrations	Project/Sheets
<b>Sessional exam on all topics</b>				

# ARCHITECTURAL GRAPHICS-V

**Subject Teachers –**Ar. Sanjivani Mohgaonkar, Ar.Anuradha Bhute, Ar. Vaijayanti Yadav, Ar. Harpreet Kaur Saggu

**Aug :-26**

**Sep :- 2, 9, 16, 28**

**Oct :- 7, 14, 21, 28**

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## COURSE OBJECTIVE:-

1. To train the students for the preparation of Submission drawing as per the local building bye laws by taking into account the Working plans, sections and elevations required for execution of actual construction work. (Submission Drawing, working plans, sections and elevations we can grade these first set of sheets out of 8marks)
2. Introduction to centre line plan & methodology adopted for laying of a layout on a virgin site. Preparing of “foundation plan” & reading of foundation table for erecting reinforcement in structural members. (Centreline plan, footing layout and foundation details 7 marks)
3. Preparing of “plinth level plan” & reading of plinth table. Incorporating schedule of doors/windows to reach lintel level. Making Lintel level plan with design of lintel beams on openings.(5marks)
4. Introduction to slab, spanning of slab beams as per loading. Reading of table and relating to the laying of slab. (4 marks)
5. RCC. staircase, laying, marking and design of waist slab staircase and folded staircase. (4 marks)
6. Designing flooring pattern , specifying material to be used, layout and fixing details. (4 Marks)
7. Attendance 10 marks, Jury 10 marks
- 8.. Total marks (50 marks)

SR.NO	TOPIC / PARTICULARS	DATE	SUBMISSION
1	Preliminary house plans to be drafted by taking up “My House” introduced in the 2nd semester. Checking of hand drafted sheets in online studio, corrections to be given	26 <sup>th</sup> Aug 2021	1 <sup>st</sup> Sep 2021
2	Introduction to working drawing, preparation of detail drawings with all other supporting details (door/window table with cill hts) needed for execution of any project. Introduction to “Submission drawing”. Checking of hand drafted working drg sheets in online studio, corrections to be given	2 <sup>nd</sup> Sept 2021	8 <sup>th</sup> Sep 2021
3	Introduction to centre line plan. Information on the methodology adopted for laying of a layout on a virgin site. Introduction of “foundation plan”. The difference in details required if the plan is load bearing or frame structure. The details of all structural members involved in erecting the structure. Reading of foundation table for erecting reinforcement in structural members	9 <sup>th</sup> Sep 2021	15 <sup>th</sup> Sep 2021
4	Introduction to “plinth level plan”. The difference of outer and inner plinth beams. Reading of plinth table. Introduction to brickwork (4 1/2” & 9” ) thk. Information on coping given at each level for structural stability. Incorporating schedule of doors/windows to reach lintel level.	16 <sup>th</sup> Sep 2021	27 <sup>th</sup> Sep 2021
5	Introduction to lintel level plan with design of lintel beams above every opening. Reading of lintel table to erect lintel beam.	28 <sup>th</sup> Sep 2021	6 <sup>th</sup> Oct 2021
6	Introduction to slab, spanning of slab beams as per loading. Reading of tables and relating to the laying of slab.	7 <sup>th</sup> Oct 2021	13 <sup>th</sup> Oct 2021

8	Introduction to r.c.c staircase, laying, marking and design of waist slab staircase and folded staircase. Providing of s.s railing in the staircase. Fixing of railing in the staircase.	14 <sup>th</sup> Oct 2021	20 <sup>th</sup> Oct 2021
9	Introduction to flooring pattern to be shown in detail plan, specifying material to be used, layout and fixing by appropriate adhesives. Necessary precautions to be taken for providing finishes to flooring materials after fixing	21 <sup>st</sup> Oct 2021	27 <sup>th</sup> Oct 2021
			28 <sup>th</sup> Oct 2021 Final Submission



## THEORY OF ARCHITECTURE II

**Subject Teachers:** Prof. Sujata Godbole, Prof. Sneha Mandekar Tirale

**Aug:-20, 27 Sept:- 03, 17, 24 Oct:- 01, 08, 22, 29**

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The theory of architecture may be defined as embracing the comprehensive and consistent organization of its facts and principles. In this sense any architectural activity whatever necessarily implies the use of theory. If the theory used is sound, thought and action will be more certain of success. Thus, every building design and every architectural curriculum presupposes an adequate theory and, in turn, inevitably reveals the quality of the theory on which it is based. Without command of theory, the practitioner and educator fall easy victims to dogmas and specious generalizations'. The most idiosyncratic theories could (and often did) exert wide and sometimes beneficial influence, but the value of these influences is not necessarily related to the extent of this acceptance.

### **Course Outcomes**

The objective of the subject is not only to transmit knowledge but to provide a deeper insight into the subject by following various physiological, psychological and sociological bases of education.

CO1 - Knowing organization of Forms and Spaces.

CO2 - Understanding of Spatial relationships, Learning Spatial Organization- influencing factors and their types.

CO3 - Study of Articulation of Forms and Space types

CO4 - To understand Character and Style in Building.

CO5 - Knowledge of Principles of Composition, Harmony & specific qualities of design

CO6 - Study of circulation pattern and its relation to organisation functional spaces and activities.

Sr. no	Syllabus Content	Topics	Schedule	Prescribed reading	Schedule	Assignment
1	Organization of forms and spaces	Spaces	20 <sup>th</sup> , 27 <sup>th</sup> Aug 21	1. David colin (2011) thinking about architecture –an introduction to architectural-theory. Laurance King publishing. London (pg.62-81) 2. Pierre von meiss (1992) Elements of architecture from form to place, Van no strandreinhold , London(pg 99-126) 3)K.B Jain ,thematic space in Indian architectural (2002) India research press New Delhi(preface to pg 15)	4 <sup>th</sup> week Aug 21	Group discussion on the interpretation of the content discussed in class. Active Participants will be graded respectively.
2	Floor, wall ,door	Elements of space making	03 <sup>rd</sup> , 17 <sup>th</sup> Sept 21	2. Yatin Pandya (2014), Elements of space making	1 <sup>st</sup> & 2 <sup>nd</sup> Week of Sept	Analytical study of an interesting space to be presented in max 4 A1 sheets (hand drawn sketches )
3	Organization of form and spaces, circulation	organization of space	24 <sup>th</sup> Sept 21 01 <sup>st</sup> Oct 21	1.K.B.jain concept to manifest 2.Yatin Pandya (2013)concept of space in traditional Indian architecture Map in publishing (pg 10-35)	4 <sup>th</sup> week Sept, 1 <sup>st</sup> week of Oct	Individual talk for 5 min on the content discussed
4	Modernism	Modernism In India	08 <sup>th</sup> Oct 21	Books on Modern Architecture, 20 <sup>th</sup> Century Architecture, Modern Architects	2 <sup>nd</sup> , 3 <sup>rd</sup> week of Oct	Discussion on re-interpretation of traditional spaces in contemporary design
<p><b>Assignment A:</b> Select an example From History and an example from Contemporary Architecture. Analyse it based On the above Principles covered In the classes Prepare A2 sheet with illustrations to explain</p> <p><b>Introduction to assignment – 03<sup>rd</sup> Aug</b> <span style="margin-left: 200px;"><b>Date of Submission: 17<sup>th</sup> Aug</b></span> <span style="float: right;"><b>Total Marks: 20</b></span></p>						
5	Circulation	Concept generation	22 <sup>nd</sup> , 29 <sup>th</sup> Oct 21	C Benninger (2011) letters to a young architects. CCBA pvt.ts. (pg 73-129)	4 <sup>th</sup> week Oct	Prepare A2 sheet to generate concept of the design of short project or

						long project of third year design.
<p><b>Assignment B:</b> Select an example From History and an example from Contemporary Architecture. Analyse it based on the concept evolution and explain architect's own concept for design Prepare A2 sheet with illustrations to explain</p>						
<b>Introduction to assignment – 22<sup>nd</sup> Oct</b>			<b>Date of Submission: 29<sup>th</sup> Oct.</b>			<b>Total Marks: 20</b>
<b>Final submission of Assignment A and Assignment B- 29<sup>th</sup> Oct 2021</b>						

**It's a sessional subject, so assessment will be purely on the basis of assignments. The presence and active participation in class work will be given due credit. The timely submissions will only be accepted. Late submissions will not be entertained.**

## SPECIFICATION

Teachers Incharge - Prof. Anuradha Bhute, Prof. Sneha Mandekar Tirale

Course Date: - 18<sup>th</sup> Aug 2020 – 29<sup>th</sup> Oct 2021

### Objectives:

1. Learning Art of writing specifications for materials & works. Introduction, importance of specifications in const. activity. To study Types of specifications & its applications. (Test)
2. Method of writing specifications (content, Correct Sequence). To understand and study the Use of IS Codes, PWD Specification (Sessional)
3. Knowing Specifications of basic building materials such as bricks, stones, aggregate, cement, steel, timber and also to Understand Specifications for various Building Construction items and Services in RCC framed structure. (Presentation)
4. To understand the importance of Specification in Working Drawings. (W D Drawings)

DATE	TOPIC	INPUT	EXPECTED OUTPUT	EVALUATION
18/08/21 & 20/08/21	Unit –I Introduction, Definition, Use, Importance of Specification Application	Lecture/ Interaction	Test	10 Marks
<b>Test 1: 10 Marks</b>				
25/08/21 – 29/09/21	Unit-II Specification of basic building materials such as bricks, stone aggregate, cement, steel, timber etc. Specification of materials used in flooring and finishing such as ceramic tiles, marble mosaic tiles, paints and varnishes. Specifications of material used in roofing and roof covering such as tiles, A.C, G.I and Aluminium sheets etc.	Lecture/ Interaction	<b>Assignment 1:</b> Presentations & Market Survey by the students	30 Marks
01/10/21 – 13/10/21	Unit –III	Lecture/ Interaction	<b>Assignment 1:</b> Presentations & Market Survey by the students	

	Specification for fixtures and fastening, proprietary materials along with manufacturer's specifications, trade names of such materials. Electrical / Power backup, Sanitation / Drainage Hardware, Water Supply				
15/10/21 – 29/10/21	Specification for demolition work, temporary construction like sheds, exhibition stalls, gateways.	Lecture/ Interaction	<b>Assignment 1:</b> Presentations & Market Survey by the students		
<b>Assignment 2: Writing Specification for various building items in Working Drawing (20 Marks)</b>					
<b>Sessional (20 Marks)</b>					
<b>Attendance</b>	<b>Test 1</b>	<b>Subject contents/ Sessional exam</b>	<b>Assignment 1</b>	<b>Assignment 2</b>	<b>Total</b>
20	10 Marks	20	20	30	100

## ELECTIVE – COMPUTER APPLICATION

Subject Teachers – Ar. Vaijayanti Yadav, Ar. Mrinmayee Tiwari

The architecture profession has changed dramatically in recent years due to technological advancements. Softwares have improved the speed and accuracy of design and provide convenience to architects. Computer generated designs allow students of architecture to know more information about building projects without having to work out long and complex problems.

### Course outcomes

**CO1** To study the applications of AutoCAD in a single dwelling unit

**CO2** To impart the technical know how of the software in drawings

**CO3** To know the basics of graphically presenting a drawing in photoshop

### Evaluation criteria

Date	Learning Objective for each topic /Content	Teachers interaction through lectures/ppts/site visit etc	Expected output	Evaluation
Week 1	Introduction about AutoCAD Introduction to working environment. Introduction to status Bar. Navigating through the GUI. Line with dimension & without dimension.	Discussion	House Plan in cad showing all details (Assignment 1)	30 marks
Week 1	Drawing angular lines, Ray, construction line, Multiline. Ortho, Osnap, Osnap setting, Polar, Otrack, Poly line. Poly line edit, Selection Window, Polygon, Undo, Redo, Trim, Rectangle, Helix, Arc, Circle, Donut, Erase, Ellipse, Copy, Mirror, Array – rectangular, polar, path, offset, Move.	Discussion and demonstration using visuals		
Submission 17 <sup>th</sup> August				
Assignments 1 (CO1)			30 marks	

Week 1	Working in Layers		Electrical layout of the house plan showing all layers (Assignment 2)	20 marks
Week 2	Layout and model			
Week 2	Scaling the drawing, saving into pdf and printing in different sizes.			
UNIVERSITY EXAM BREAK				
<b>Submission of Assignment 1 and Assignment 2 in 4<sup>th</sup> Week of August</b>				
Week 3	Introduction to Photoshop- Getting started, Interface layout, palettes, toolbox, Selection tools, Alteration tools	Discussion and demonstration using visuals	View of one block and Site plan of current Design project (Assignment 3)	30 Marks
Week 4	Drawing and selection tools, Assisting tools, Colour boxes and Modes			
Week 5	Basic image editing, cropping, resizing, correcting, Sharpening/softening, saving			
Week 6	Working in Layers, Selections with different tools			
Week 7	Text, Filters and effects			
Week 8	Saving and exporting, Printing			
<b>Submission in second week of November</b>				

Assignment 2 (CO2)	20 marks
Assignment 3 (CO3)	30 marks
Attendance	20 marks

## Elective B- Appropriate Technology

Subject Teachers – Prof. Shobhana.Tembhurnikar, Prof. Poornima Deshpande

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**Appropriate Technology** is the use of technology, engineering and design that result in less negative impacts on the environment and society, i.e., technology should be both environmentally sustainable and socially appropriate. Besides being functional and relatively cheap it is durable and employs renewable resources.

The study will enrich the knowledge of the student about the alternative /innovative materials and construction techniques and appropriate planning, suitable for rural and urban area.

SrNo	Duration	Objective for each topic/ content	Teachers input	Expected output	Evaluation
1	6 <sup>th</sup> July 2021	Introduction to the subject Objectives <ul style="list-style-type: none"><li>To make student understand the concept of appropriate technology, its relevance in present day context, scope etc.</li><li>To make students aware of the importance of the subject.</li><li>To understand the future prospects of the subject.</li></ul>	Lectures and discussions	<b>Assignment 1</b> on projects of Architect who have designed using appropriate construction technology	
<b>Students presentations on 7th and 8th July 2021 (Assignment 1)</b>					
2	8 <sup>th</sup> July 2021	Study of appropriate technologies in various regions which will include the construction methods adopted, locally available materials, climate etc. <b>Objectives</b> To make student understand the local construction techniques adopted in various regions of India.. To make them aware of the various materials used w.r.t its quality, availability, cost and maintenance etc.	Lectures and discussions	<b>Assignment 2</b> Identifying a project of any one climatic zone from various regions of India.	



<b>Students presentations on 12th, 13th,14th,15th July 2021 (Assignment 2)</b>					
3	<b>9th July 2021</b>	<p>Study of bamboo as a building material</p> <p><b>Objectives</b></p> <p>To study the use of bamboo as building material, its properties and varieties available in the country and its construction techniques.</p>	Lectures and ppts		
4	<b>12th July 2021</b>	<p>Study of Soil as appropriate building material and its different construction techniques.</p> <p><b>Objectives</b></p> <p>To study its composition and properties.</p> <p>To understand the suitability of soil for mud walls, Soil Stabilization etc.</p>	Lectures and ppts		
CO1	Understand the concept of appropriate technology, its relevance in present day context, scope etc				

5	<b>14th July 2021</b>	<p>Study of Vaults, Domes using soil cement blocks, compressed mud blocks, Nubian arch roof-</p> <p><b>Objectives</b></p> <p>To make students aware of the possibilities of constructing innovative forms using soil.</p>	Lectures and ppts		
6	<b>15th July 2021</b>	<p>Study of Solar Energy in the form of photovoltaic cells and panels, solar water heater etc.</p> <p>Objective</p> <p>To make student understand the use of solar energy in day to day life.</p> <p>To make them understand its usability and cost effectiveness.</p>			
7	<b>16th July 2021</b>	<p>Presentation on affordable / low cost housing.</p> <p>Objectives</p> <ul style="list-style-type: none"> <li>• Understand the need of low cost housing</li> <li>• To study the different construction materials and techniques for modern low cost construction built structures, which are socially, economically and environmentally sustainable</li> </ul>	Lectures and ppts	<b>Assignment 3</b> Low construction techniques to be integrated with the current design project.	
<p><b>ASSIGNMENT-III</b> <span style="float: right;"><b>30 Marks</b></span></p> <p>Objective- Integrating Appropriate technology with Design.</p> <p>Designing and preparing the conceptual sketches with appropriate building material for one residential unit and an cluster of an atmanirbhar village This assignment will help student</p> <ul style="list-style-type: none"> <li>• to explore different appropriate construction technology, and material, developing innovative forms, for affordable and low cost housing</li> </ul>					

- to understand the construction details required for the same.
- Note: The submission will be in the form of sheets.

**SUBMISSION – ASSIGNMENT- III**

**EVALUATION CRITERIA**

	<b>Attendance</b>	<b>Assignment 1</b>	<b>Assignment 11</b>	<b>Assignment III</b>	<b>Total</b>
	20	30	20	30	100
CO2	Study of Appropriate technologies in various regions including the construction methods adopted, locally available materials, climate, cost etc.			Assignment 1	
CO3	Understand the traditional construction methodologies adopted in various regions of India.			Assignment 2	
CO4	Study of appropriate building construction techniques & material in building services.				
CO5	Bamboo as a building material- to explore different innovative forms for the requirements of smart housing.				
CO6	Integrating Appropriate technology with Design.			Assignment 3	

## ELECTIVE B- LANDSCAPE DESIGN STUDIO

Subject Teachers – Ar. Sneha Mandekar Tirale

Course Date: - 2<sup>nd</sup> July 2021 – 16<sup>th</sup> July 2021

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### INTRODUCTION

People are more aware nowadays of the importance of preserving the environment and because of this, landscape architecture is now viewed as more important than it used to be. Landscape architecture provides solutions to many existing environmental issues, protects ecology and helps to protect national treasures.

The landscape design course, provided as part of the 5th semester curriculum, is a continuation of the basic design course and allows basic design concepts to be transferred to landscape design. The elective aims to facilitate an understanding amongst students in order to take site planning decisions. To help them orient and locate group of structures on site, so that the buildings together with the interrelated spaces become one architectural entity and also to deal with open space structures.

To start with the session a warm up exercise will be introduced wherein students will analyse an ecological sensitive area. This eco-sensitive area is Ajni Vann, the huge lush green corridor right in the centre of the heart. Ajni is an area developed adjacent to the eastern side of Ajni Railway station, the area carries Quarters that have been developed since 1881. The area is a developed Railway colony that carries various hierarchy of Quarters (housing), open play grounds, gardens, railway workshops, Health care centre and religious places. Ajni is rich in Biodiversity, its home to most important species of Birds & insects like Flowerpecker (a dense forest lover) wagtails & warblers (winter migrants) ,and very uncommon Olive backed pipit and Indian blackbird, also our native stingless bee inhabits in old vintage heritaceous quarters of Ajni. Pollinating activities of these bees have a direct effect on climate as they help plants to reproduce and to maintain biogeocoenosis. Ajni Vann the green cover within Nagpur city will face axe on 40000 trees for Inter Modal Station proposed by NHAI. Therefore students will understand the ecological importance and why it has to be preserved with respect to landscape studio.

In this semester we also have a landscape competition named **Ar. Sunil Toye Landscape Competition** in which all students participates in groups, design for a live project and the winning group executes their design on the site.

This elective contributes to the following Learning Outcomes:

**CO1 –**

- Experiment with an approach to landscape architecture based on the expressive capacities of site and their amplification through design
- Adopt an iterative design process encompassing phases of site construction, design ideation, development and resolution

**CO2 -**

- Apply an informed, ethical position towards social, technical and environmental issues and practices.
- Represent landscape architectural information using a range of disciplinary forms, techniques and conventions

**CO3 –**

- Communicate ideas professionally
- Create designs that respond to their context in formally or conceptually innovative ways.

**CO4 –**

- Develop advanced skills for the production, presentation and documentation of work.
- Generate solutions to complex problems through an exploratory and iterative design process.

**Format of each class:**

- Presentation on related theories and Concepts related to integration of landscape and architectural projects
- Discussions and Interaction with students based on design values and design Concepts.
- Activity introduction, Evaluation and feedback session

**Bibliography**

- Kevin Lynch, Site planning-
- JOHN ORMSBEE SIMONDS (A Manual of Site Planning and Design), Landscape Architecture (Third Edition)
- R.GENE. BROOKS, DAVID.W.LESTAGE, Before Building: Site Planning in the Digital age (Second Edition)

Date	Learning objective for each topic/ Content	Teacher's interaction through lectures/ ppt/ site visit etc	Expected output	Evaluation
02/07/21	General Introduction & Introduction to assignment 1: To identify and study existing Ajni Vann	General discussion and orientation	Studio work	30
05/07/21 – 08/07/21	Continuation of assignment 1	Powerpoint presentation of site analyses & Discussion and orientation	Sheets	
09/07/21	<b>Submission</b>			
09/07/21	Introduction to Ar. Sunil Toye Landscape Competition	General discussion and orientation	Studio work	30
12/07/21 - 13/07/21	Landscape Studio	Siting and orientation of buildings to study	Evolving strategies for own design	
14/07/21	Landscape Studio	Strategies in design	Incorporating strategies at building level	
15/07/21	Landscape Studio	The integration of outdoor spaces and built spaces, Parking lots, broader planting policies for the site.		
16/07/21	<b>Final Submission</b>			

### Evaluation Scheme

Attendance	Sessional exam	Assignment 1 (CO1 + CO2)	Assignment 2 (CO3 + CO4)	Total
20	20	30	30	100

**Thank You!!**