



WES

SMT. MANORAMABAI MUNDLE
COLLEGE OF ARCHITECTURE

STRUCTURAL DESIGN AND SYSTEMS

ARCHITECTURAL GRAPHICS

HISTORY OF ARCHITECTURE

CRITICAL APPRECIATION

ENVIRONMENTAL STUDIES

ARCHITECTURAL DESIGN

VERNACULAR ARCHITECTURE

CLIMATE AND ARCHITECTURE

ARCHITECTURAL DOCUMENTATION

CONSTRUCTION TECH . & MATERIALS

**THIRD
SEMESTER**

ACADEMIC BOOKLET

ODD SEMESTER

2020-2021

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POLICY CODE	INTRO
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Introduction

Architecture is a noble profession and demands a set of dedicated personnel for creating an environment necessary to stimulate inquisitive urge amongst students to learn Architecture. Architecture is an Art and Science of built environment and plays an important role in the development of a nation. Supply of trained and skilled individuals to the society enhances the quality of environment and thus braces the National Policy.

Women's Education Society was established in Nagpur in the more than 80 years ago in 1932. Driven by the mission of holistic development of women, the members have always strived hard towards this goal. Thus as an integral part of the society Women's Education Society, has joined hands with the national policies of development of women.

The main objectives of the Society are:

- To meet the needs of the Nation by providing human resources with required knowledge and skill.
- To provide human resource which can effectively function in a variety of social, cultural, geographical, economic and technological needs of the nation.
- To support the development of the nation with special emphasis on progress of women and establish their identity.

SMMCA

Smt. Manoramabai Mundle College of Architecture offers (B.Arch) a five year degree course in Architecture in the faculty of Engineering and Technology. The Smt. Manoramabai Mundle Department of Architecture was started in the session 1993-94 and was elevated to the status of a college in 2008-2009 after permission granted by the Council of Architecture, New Delhi and Govt. of India, RTM Nagpur University, Nagpur and Govt. of Maharashtra. The primary purpose as an academic institute is the creation, dissemination, preservation and application of knowledge for the betterment of the society. To fulfil this mission, SMMCA is committed to academic freedom in its fullest sense. The institution values open access to information, and free and lively debate with mutual respect for individuals, with a belief that learning occurs not only in the classroom but also through engagement in communities and organizations beyond the college.

Discovery, Creativity and Innovation are hallmarks of SMMCA. As one of the India's premier architecture institutes, it is committed to ensuring 'excellence through creativity and innovation'. In doing so, SMMCA advances knowledge, addresses pressing societal needs

and creates an academic environment enriched through diverse perspectives where all individuals can flourish. We seek to serve society through both teaching and scholarship, to educate successive generations of leaders, and to pass on to students a renewable set of skills and commitment to social engagement.

SMMCA endeavors to integrate education, research and service so that each enriches and extends the others. This integration promotes academic excellence and nurtures innovation and scholarly development.

We believe that diversity is critical to maintaining excellence and foster open-mindedness, understanding, compassion and inclusiveness among individuals and groups. We value differences as well as commonalities and promote respect in personal interactions.

We are committed to overall academic excellence through exploration of diverse contexts and innovations through collaborative research. Respect for cultural and social diversities is linked to academic excellence. We hold ourselves to the highest standards of ethics, as a beacon for our community and the world. Through education, we emphasize the power of discovery and the foundation of critical and analytic thinking. We foster creativity, challenge the boundaries of knowledge and cultivate independence of mind through unique interdisciplinary partnerships. Ours is a proud culture of innovation, collaboration and discovery that has transformational impact on the society.

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

Academic Programmes

- B. Arch is the undergraduate course offered by the institution with an intake of 120 students.
- M.Arch (Architecture Education) has been initiated from session 2007-2008, with the objective of creating professional teachers in the field of architecture.
- The institution is also a recognized Centre for Ph.D. by Council of Architecture and Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur.

Applicability

This policy is meant for all the members of SMMCA family of students, parents, academic and non-academic appointees. It is subject to amendments as and when felt necessary.

POLICY CODE	PS (Policy for Students)
VERSION 1.0	

Eligibility and Admissions

- The minimum eligibility to apply for the course is 10+2 or equivalent from a recognised Board/University with Mathematics as a subject of examination (at least 50% aggregate).
- A minimum of 40 percent marks (80 out of 200) in NATA is required for admission. A merit list is then prepared on the basis of marks obtained in Class 12 and NATA (giving equal weightage to both).
- Any person having passed SSC(Std X) or equivalent examination can appear for NATA conducted by Council of Architecture.
- The admission is through Centralised Admission Process (CAP)

For details, refer site- www.nata.in

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 26th January and of 15th 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.

Facilities –

- Library : A well equipped library is maintained by the college
- Laboratories (The material bureau, climatology lab, survey lab and services lab): These laboratories are well maintained to help the students keep themselves well updated with the various tools and materials and their application.
- Computer centre: A fully equipped computer lab with LAN terminals, plotters, printers, scanners and facility for LCD projection is available.
- Workshop : A fully equipped workshop to enhance practical skills and for hands-on experiences.
- Brain gym: Encourages and nurtures creative thinking in students as well as teachers through many experimental art and design activities.
- Reprography centre: It is in computer lab wherein drawings can be plotted on sheets as per requirement.
- Participation in NASA -Students who are regular in class and have cleared all examinations of the previous semesters will be allowed to take part in the various activities of NASA.

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.

Second Year Faculty

Second Year In-Charge : Ar. Sneha Bodhankar

Section A - Class Coordinator : Ar. Seema Burele

Section B - Class Coordinator : Ar. Sneha Bodhankar

1. Design

Coordinator: **Ar. Sneha Bodhankar**

Team: Dr. Roopal Deshpande, Dr. Madhura Rathod, Dr. Tarika Dagadkar, Prof. Atula Patwardhan, Ar. Seema Burele, Ar. Sneha Bodhankar, Ar. Harpreet Saggu

2. Construction Technology and Materials

3rd sem Construction Coordinator: Ar. Seema Burele

Team : Ar. Tarika Dagadkar, Ar. Seema Burele, Ar. Sarika Joshi, Ar. Sneha Bodhankar,

3. History of Art and Architecture

Team : Dr. Roopal Deshpande and Ar. Nehal Maheshwari

4 Elective A

.Environmental Studies

Team : Ar.Tarika Dagadkar, Ar. Sarika Joshi,

.Vernacular Architecture

Team : Ar. Seema Burele, Ar. Isha Pawar

5. Elective B

Architectural Documentation

Team: Ar. Neeta Lambe, Ar. Sneha Bodhankar,

Critical Appreciation

Team : Dr. Roopal Deshpande, Ar.Harpreet Saggu

6. **Graphics**

Team : Ar. Vishwas Dikhole, Ar. Madhura Rathod, , Ar.Tarika Dagadkar, Ar. Seema Burele,

7. **Climate and Architecture**

Team : Ar. Vaijayanti Yadav, Ar. Sneha Bodhankar

8. **Structure**

Er. Rupal Wadegaonkar

9. **Survey**

Mr. Sandeep Shirkhedkar, Ar. Sneha Bodhankar

Scheme of Examination- 3rd Sem

Sr. No.	Sub. Code	Sub. Name	Category	Boa rd	Load Per Week					Credits					Paper/ Sessiona l	Durat ion in Hours	Max. Mark s	Tota l Mar ks	Min. Pass Mar ks
					L	T	D	S / P	Tot al	L	T	D	S/ P	To tal					
1	3S-A-1	Architectural Design II	DC	AR	2	0	0	5	7	2	0	0	5	7	Sessiona l Viva-Voce		100	100	100
2	3S-A-2	Construction Technology & Materials III	DC	AR	2	0	2	0	4	2	0	2	0	4	Sessiona l Paper	3	100	100	50
3	3S-A-3	Structural Design & Systems-III	ES	AR	2	1	0	0	3	2	1	0	0	3	Sessiona l Paper	3	30	100	40
4	3S-A-4	History of Art & Architecture III	DC	AR	2	1	0	0	3	2	1	0	0	3	Sessiona l Paper	3	30	100	40
5	3S-A-5	Architectural Graphics -III	DC	AR	1	0	2	0	3	1	0	2	0	3	Sessiona l		50	50	25
6	3S-A-6	Surveying and Levelling	DC	AR	1	0	0	1	2	1	0	0	1	2	Sessiona l		50	50	25
7	3S-A-7	Climate & Architecture	DC	AR	1	0	1	0	2	1	0	1	0	2	Sessiona l Paper	3	30	100	40
8	3S-AA-1	Elective a	DE	AR	1	0	2	0	3	1	0	2	0	3	Sessiona l		100	100	50
9	3S-AA-2	Elective b	DE	AR	1	0	2	0	3	1	0	2	0	3	Sessiona l		100	100	50
TOTAL					13	2	9	6	30	13	2	9	6	30			1000	1000	460

Total Paper-5, sessionals- 6, viva-voce- 1 (Passing heads- 11)

Elective Environmental Studies/Rural Architecture/Vernacular
a - Architecture/Environmental Impacts/
History of Indian Traditional Art & Crafts/Art Appreciation/Architectural
Elective Documentation/Critical Appreciation
b -

Introduction

Welcome to second year. We hope you enjoyed your first year and found the course interesting. It's good to see you progressing in your architectural curriculum. You must have enjoyed your first year which was full of excitement, exploration and introduction to architecture as a creative field. Now, as second year students, you are aware of basic design, anthropometry, activity relationships, facilitation, different scales, views, graphical presentation in terms of plans and elevations. You are well aware of different modelling materials, how to convert 2D form into 3D form. In your first year, you were exposed to architectural design through projects like My House, and were introduced to concept of documentation. There was simplicity and familiarity in activities and their relationships. With this background, now you are starting in your second year design.

The understanding of basic services required and their design considerations would be introduced to you in second year. We have noticed over the years that students ignore the basic needs and go for big and impressive contents. First minor design project will be based on designing toilet facilities wherein you will learn the terminologies involved, various fixtures and space requirements and the appropriate location of these.

This year, more complexity will be added to architectural design in terms of introduction of various factors which govern the design such as socio-cultural setup, climatic considerations, complex activities with complex circulation and activities with varied user groups. The simplest way to understand the formulation of design considerations is from the field observations, site visits and study tours. The practice of architectural design is learned through a project based studio approach. As said earlier, architecture cannot be learnt in four walls of a studio, due importance is given to exposure to varied socio-cultural backgrounds to understand architecture holistically through exposure on site, and also Study Tours.

Due to changing scenario of profession, it is necessary to cultivate effective team spirit. What better way than to began with the students? Through such study tours, you will learn very basic group dynamic skills including how to communicate with other students and how to resolve conflicts. You will get an opportunity to understand the thinking process and approach towards resolving design of your co-students with varied socio- economic-cultural backgrounds. In architecture profession, presentation skills are an integral part of practice, by this venture, you are exposed to different tools and techniques. Teamwork and task sharing between students enhances the responsibility of individual members of the team.

In this semester, a tour based major design project will be introduced that will focus on the different socio-cultural background along with different climatic conditions. The site identified for the study-tour is Bhuj in Kutch region of Gujarat. As you all are aware, the region has a very strong social background with different culture than our region. The climate of the region is hot and humid which is very different from the composite climate we have. The architectural challenges will be of a much higher level than the first year design.

We will endeavour to see that, you will get all opportunities to develop yourselves in architectural design by resolving the challenges given to you through the design projects of this semester and you will enjoy this semester. Work hard and enjoy hard. All the best for the second year.

Architectural Design III

Design Coordinator: Ar. Sneha Bodhankar

Design Team: Dr. Roopal Deshpande, Dr. Madhura Rathod, Dr. Tarika Dagadkar, Prof. Atula Patwardhan, Ar. Seema Burele, Ar. Sneha Bodhankar, Ar. Harpreet Saggu

Project I (Minor Project) – **Gateway Design**

DURATION: 3 WEEKS **MARKS: 25%**

Project II (Major Project) – **Skill Development Centre**

DURATION: 12 WEEKS **MARKS: 75%**

In this semester students started with understanding the core of the design which is based on the theme 'Vocal For local'. They started with interpreting the concept according to their understanding. How local resources are responsible for uplifting the art and craft of the region was further studied. To absorb the concept in detail they identified and analysed the precedent studies of skill development centre all over India. Thus they studied the different skills of respective region and how such centres are helping to uplift the local resources and skills for improving the economical status of the community. Students then identified the skills and the space requirement for the same. Data collection and anthropometric study was done related to the specific skills.

CONNECTING VOID

–ENTRANCE GATE DESIGN FOR SKILL DEVELOPMENT CENTER

A gate is a structure that can be opened to provide an entrance or an opening used for passage through a fence or wall. To entering into a campus through the entrance gate which will give the feeling of change of space.

The gateway is a void which will connect the user to the space or campus. So, the designing entrance gate is an important structure in campus design.

We are initiated the students to explore the designing an entrance gate which will give character to the typology that they are dealing with i.e. skill development center.

Architectural Objectives

General :

- To create a structure will give connect user or victors to enter into a space or campus.
- To create structure which will provide experiences that inspire action and creativity
- To explore students with different elements, components and materials to come up with interesting forms for gate way.

Specific Objectives :

- To understand the concept of Entrance Gate and Why it is Important Feature in Campus.

- To understand the different Dimensions and Anthropometry for designing
- To develop the understanding of interrelationship of activities like Guard room and its circulation pattern with the Functional aspect of security
- To understand the importance of Gateway design

Design Interventions

- To design the structure which will provide feeling of entering to a different space
- To explore with design elements, materials and form to achieve an interesting form
- Design is to be site and context specific which will provide glimpses of Skill development center

Stages of Designing

1. Introduction to activity	Week 1
2. Precedent study on Entrance design and its functional elements 3. Sketching of entrance Gate	
Review 1	
4. 3dexploration-Involving students to explore form in 3D	Week 2

5. Detailing with materials and elements	Week 3
6. Architectural drawings	
Review 2	
Submission of Minor Project- 10 th Nov. 2020	

Design Program:

Duration	MODULE	TASKS	STUDIO DISCUSSION	EXPECTED WORK
Week 1	1) Introduction 2) Understanding	Identification of meaning "connecting voids" Brain storming of words related to designing of	Inputs on Connecting Voids as Entrance Gate And its functional, aesthetics importance for designing	Sheet on Brainstorming of Entrance gate And its functional aspects with exploration on activities evolved Options of 3d model Ppt on study

	the activities involved in Entrance Gate	entrance gate. Precedent study on entrance gate	•Understanding the entrance gate and its study on elements with reference to human scale	
Week 2	<p>3) 3dexploration- Involving students to explore form in 3d</p> <p>4) Detailing with materials and elements</p> <p>5) Architectural drawings</p>	<p>3dexploration- Involving students to explore form in 3d</p> <p>Hands on Exercise to intervene the students interest</p>	Discussion on 3d Models and its detailing and scale	<p>Models</p> <p>Sketches</p> <p>And Architectural detailing drawings</p> <p>A2 Size sheet</p>

SKILL DEVELOPMENT CENTER

Introduction

Atmanirbhar (self-reliant) has been very well received to enable the resurgence of the Indian economy. **Atmanirbhar Bharat** has been called by some as a re-packaged version of the **Make in India** movement using new taglines such as 'Vocal for Local'. The Five pillars of **Atmanirbhar Bharat** focus on: Economy, Infrastructure, System, Vibrant Demography and Demand. Addressing to the current issues in Indian context we as responsible professionals should attempt to contribute through architecture. The interpretation of 'Atmanirbhar Bharat' considering social, economic and environmental issues we should focus on how quality of life can be improvised by taking care of the context.

Our institution third semester Second year students will design skill development Centre considering the context the potentials in terms of availability of resources both material resources and human resources. This concept will blend with the philosophy of the institute that methodologies in teaching and research should be contextually grounded. This is an attempt to develop the thought process and redesign big picture of harmonious coexistence of mankind with nature.

The Skill Development Centre in the respective context will be an example of economic development considering environmental and socio cultural concerns. Villages act as rural growth clusters. The people of rural areas will get the opportunity to develop and exhibit their skills and innovations in this center. This center will give platform to rural people to interact and showcase the technology on global platform.

Design focuses on enriching local skills. The Center will strengthen skills with Education Center and the supporting activities considering the need of the place/ village. The identified activities need to be knowledge driven enterprises for rooting the thought of entrepreneur development. This center will facilitate and educate the people of all age group and

gender to create better employment for Economical development of village and make individual self-sustainable and self-reliant.

The concept of organization of form and spaces, where the students could explore on different options of space designing within space, interrelating and hierarchy of space, interlocking spaces, adjacent spaces etc.

Aim: To design a Skill development center for socio-economic development of the context.

Architectural Challenges

- a) Space organization structure of skill development centre
- b) Need for multifunctional spaces in Skill development Centres
- c) Built and open space relationship
- d) To incorporate Climate responsive building design features.

Architectural Objectives

General :

- To create an environment that fosters community engagements and hence strengthens community.
- To create spaces and experiences that inspire action and creativity and thus lead to self growth at an individual level.
- To act as social hub for community learning, over which the members feel a sense of ownership.

- To strike balance between the aspiration of the community and the environment that they are familiar with, to create a new environment that is suited to their needs.

Specific Objectives :

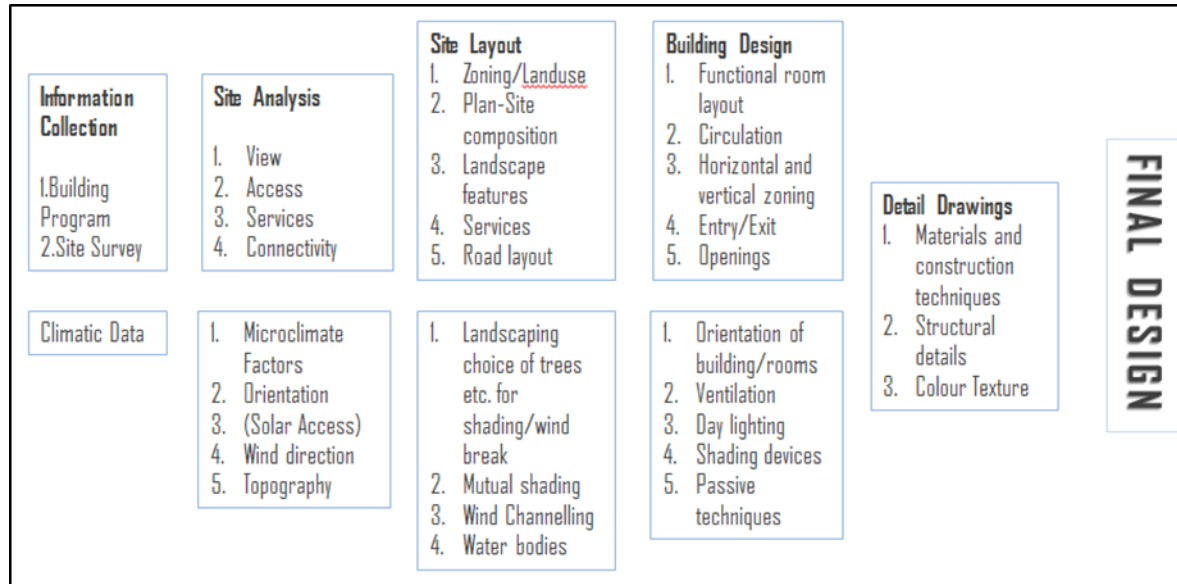
- To understand the concept of “Vocal for local”.
- To understand the socio economic issues of the selected villages
- To understand the specific skills needed for the development of the region.
- To develop the understanding of interrelationship of composite activities and its circulation pattern.
- To make students aware of the different users requirements while designing activities.
- To understand the spaces required for specific skills with respect to anthropometry.
- To understand the village context and application of climate responsive design features

Design Interventions

- d) Sustainable approach for the growth and to meet the requirement of villagers needs adopted by using participatory method.
- e) To design the building with unique architectonic expression

Approaches for Design:

Architectural approach



Climate Responsive Architecture in Composite Climate

- Orientation of building
- Fenestration Pattern
- Building materials and construction techniques
- Passive techniques
- Vegetation pattern

Objectives for Climate Responsive Design	Physical Manifestation
1. Resist heat gain in summer and resist heat loss in winter	
a. Decrease exposed surface area	Orientation and shape of building. Uses as wind barriers.
b. Increase thermal resistance	Roof insulation and wall insulation
c. Increase buffer spaces	Air locks/lobbies/balconies/verandahs
d. Increase shading	External surfaces protected by overhangs, fins and trees
2. Promote heat loss	
a. Ventilation of appliances	Provide windows/exhausts
b. Increase air exchange rate	Courtyards/wind towers/fenestration pattern
c. Increase humidity levels	Trees, water bodies, evaporative cooling

Introduction to Site-

The focus of our study is mainly on Rural Development and addressing the issues of reverse migration and employment. The study of the present issues and challenges of the rural areas along with the schemes launched by the Government of India (like Smart Village Sansad Gram Yojana and other rural development schemes) along with the development guidelines drafted by the Government for entrepreneurship and business development, mainly MSME shall also be studied.

By understanding the issues and challenges of the identified villages and analyzing the existing infrastructural setup, socio-cultural fabric, a design intervention which will act as catalyst for the entire village will be proposed.

The three villages of Nagpur district (Waroda, Borkhedi, Ridhora) have been identified near Nagpur city within a radius of 30-35 kms. These villages shall be accordingly planned, developed and integrated in a holistic way to ensure appropriate quality of life, complete with basic facilities and amenities which will change the perspective of the rural

The selected village is located at Nagpur City within Radius of 30-35kms. The site context is Natural Features of Village and surrounded by road, industries, housing, dwellings, market, with natural features and flat-land forms. The site area for designing Skill development is between 1000-1200 sq.m. for 50 nos. of people for services/ training. –Identified Skills for up gradation of Local Human Resources. Following Categorization of activities according to the villages

Waroda Village: Food processing skill training centre (dal mill, orange, mango, Aloe Vera processing unit)

Ridhora Village: Bioherbal product Skill development Centre, Organic fertilizer Khadi & Textile and printing, cane product, cottage industry

Borkhedi Village: Industrial Skill Development centre (Fabrication, welding, electrician, computer)

General Information about site-

Waroda Village

The village has been identified for the rural development project for the following reasons:

It lies within a radius of 30 kms of Nagpur city, and also 4 kms away from the taluka town of Kalmeshwar, making it easily approachable.

It has a very small population of 1694 and comes under Waroda Gram Panchayat.

The village is divided into three hamlets with the central hamlet being an old settlement evolved in 2003. 50% houses are pucca, 48% are kuccha.

85% of the occupation is agriculture, 10% are self-employed/business, 5% are working in the cities.

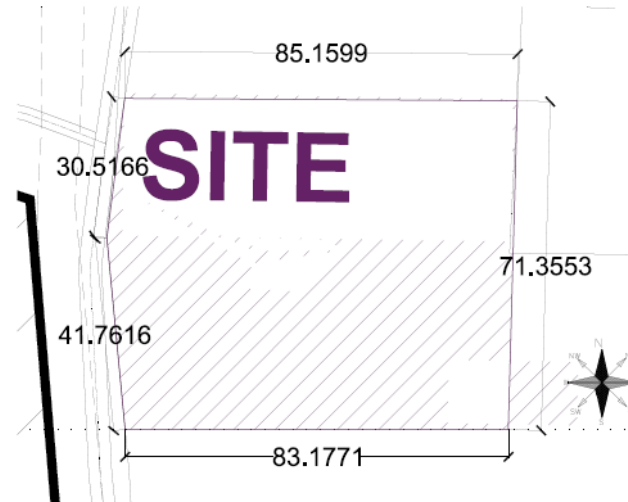
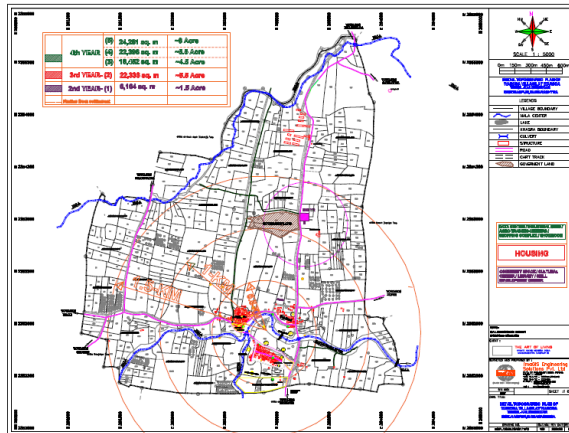
No migration is observed, with maximum hindu population. The economic status of the people is at a satisfactory level, with 10% below poverty line.

Crops cultivated are cotton and soyabean, along with oranges, sweet lime, tur and chana dal.

Lack of awareness is seen in all spheres of life, which has led to neglect and stunted growth of the village.

One primary health centre has been provided but it is not equipped with the water & sanitation facilities.

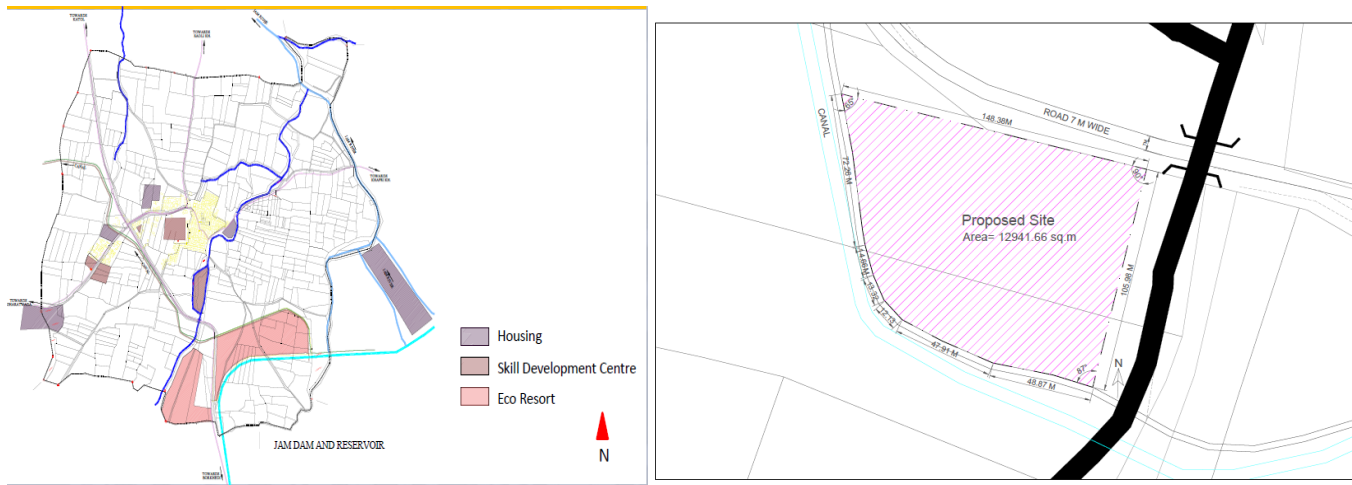
Educational facility upto 12th std in science, arts and commerce has been provided. An aanganwadi has been provided which needs upgraded facilities and renovation along with infrastructural facilities.



Ridhora Village

Ridhora Village is in Katol Taluka in Nagpur District of Maharashtra State, India. It is a part of Vidarbha Region, known for production of oranges. It is located 60 kms from Nagpur and 4 kms from Katol. The main road of the village crosses state highway no. 247. Ridhora has its own railway station which connects directly to New Delhi. The village has a population of 4314 with 52% males and 48% females and around 75% of the population is literate. 90% of the villagers practice agriculture with a workforce participation of 57% and some of them have an annual income as low as Rs. 21000. The agriculture produce is sold in Nagpur market, where they are not getting satisfactory rates and they have no storage facilities in the village to hoard their produce. The village has municipal water supply and 99.5% of household have toilet and remaining 55 have access to public toilets. It has good mobile, internet and DTH connectivity. It has education and health facility in good and functional condition but

are insufficient as per the population. Facilities like shopping centre, community hall, parks, playgrounds, theatre are absent in the city. There are only 60% pucca houses with a dwelling unit size of 4, indicating out-migration of younger generation for employment opportunities.



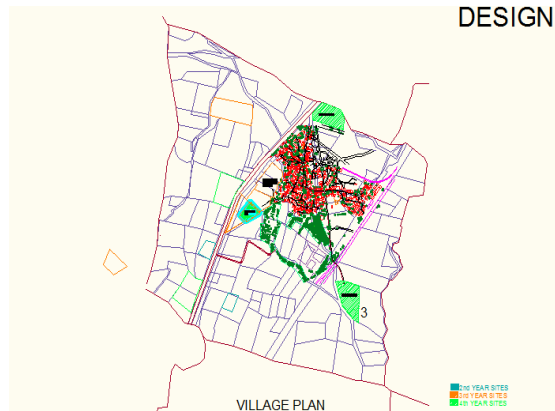
Borkhedi Village

Borkhedi is a large village located in Nagpur Rural Taluka of Nagpur district, Maharashtra with total 556 families residing. The Borkhedi village has population of 2436 of which 1231 are males while 1205 are females as per Population Census 2011.

Borkhedi village is administrated by Sarpanch (Head of Village) who is elected representative of village. The village enjoys a strategic location in all modes of transport including roadways, railways, and airways. The climate of the village is characterized by hot and dry climate. May is the hottest month of the year with mean daily maximum temperature going up to 46° C with mean daily minimum temperature as 10° C. The total normal rainfall is about 1064 mm. The maximum precipitation is received in the months from June to September.

Borkhedhi is well connected by Public and private bus service and by railways

Education: In Village 3 Pre-Primary, 1 Primary, 2 Middle & 2 Secondary Schools are existed



Design Stages

STAGE 1- INTRODUCTION TO THE PROJECT	July 2020
STAGE 2- CREATIVE EXERCISE	September 2020
STAGE 3- PRECEDENT STUDY AND DATA COLLECTION	September 2020
STAGE 4- FORMATION OF DESIGN PROGRAM	October 2020
STAGE 5- CONCEPT DEVELOPMENT	November 2020
STAGE 6- ARCHITECTURAL DETAILING	November and December 2020

Design Requirements

- a) Guard room, Parking
- b) Admin block (Conference hall ,training area, exhibition area, Computer Aid facility room, sale area , Crèche , Toilet block ,work station ,Cabin -2 nos, waiting and reception)
- c) Workshop, Store, Area reserved for Research & Development, Quality control lab.
- d) Drinking water facility, waste disposal system, Rain water harvesting details.

Design Program:

Duration	MODULE	TASKS	STUDIO DISCUSSION	EXPECTED WORK
<p>Week</p> <p>July</p> <p>2020</p>	<p>Introduction</p> <p>Understanding of the theme 'Aatmanirbhar Bharat' and 'Vocal for Local'</p>	<p>Local Skills, Resources and Culture</p>	<p>Understanding of the correlation between the theme Vocal for local and building typology Skill Development Centre.</p> <p>•Understanding the Context and Local Skill and Regional resources.</p> <p>Involvement of Experts from Bhartiya Shiksha Mandal.</p>	<p>Essay</p>
<p>August</p>	<p>Precedent Study and Data collection</p>	<p>Precedent Studies based on: - Govt.Intiative,</p>	<p>Discussion</p>	<p>Power Point Presentation</p>

Sept 2020		Pioneer architects work, Construction Techniques. Data Collection		
October and Nov. 2020	Context studies (Village study) and conceptualization Village study 1) Contextual Study - Aspirations of locals. 2)Site Survey & Analysis	Creative Exercise- Composition	Discussion on Context, Site allocated and Composition Presentation by teachers Inferences	Power Point Presentation A2 Size sheet
Nov. 2020	Final design program Circulation Diagram	Interpreting the site in terms of strengths and finalizing areas in the design program.	Discussion on functional requirements and anthropometric study.	A2 Size sheets
Decemb er 2020	Concept Development	Identify spatial qualities to be adopted in the form of a creative exercise.	Concept Development considering Tangible and Intangible aspects of Design requirement	Power Point Presentation A2 Size sheet
Decemb er 2020	Preliminary plans, with sketches to understand 3D evolution	Discussions, teacher- student interactions	Creative Exercise , Concept ,rural architectural expression its expression in Building Design , 3- D views	A2 Size sheet

December 2020	Climate Responsive Design	Discussions, teacher- student interactions	Passive Techniques its application in Design Presentation by teachers	A2 Size sheet
	Finalization of plans, elevations & sections	Discussions, teacher- student interactions	Final sheets, plan, elevations, sections, views, models, etc.	A2 Size sheet
December 2020	Detailing	Discussions, teacher- student interactions		A2 Size sheet
Pre Final Submission - I N T E R N A L R E V I E W - REVIEW				
Submission of Scanned Soft Copy				
22nd December 2020 – Pre final Submission of Major Project				
11th January 2020- Final Submission of Major Project				

Assessment –150 marks

Submission Layout:

- Site Study
- Design Program
- Concept and its manifestation
- Site Circulation Diagram

- Building Circulation Diagram
- 2D/3D Composition and its manifestation in Building Plan with respect to Climate
- Final Site plan, Site Sections-2
- Detail Plans at all levels(At Sill Level and Roof level)
- Elevations, Sections & Views (Individual Block)
- Detailing of materials & Construction techniques
- Detailing of Built and Open Spaces with respect to climate
- 3D Model

Attendance	Minor Project			Major project						
20 marks	30 marks			100marks						
	Review 1	Review 2	Submission	Review 1	Review 2	Review 3	Review 4	Review 5	Pre final submission	Final Submission
20	5	5	20	10	10	10	10	10	20	30

CONSTRUCTION TECHNOLOGY AND MATERIALS- III

Construction Coordinator - Ar.Tarika Dagadkar

Team : Ar.Vishwas Dikhole, Ar.Tarika Dagadkar , Ar.Seema Burule, Ar. Sarika Joshi, Ar. Sneha Bodhankar, Ar. Isha Pawar, Ar. Harpreet Saggu

Sr.No	Topic	Objectives	Time Period	Power point presentation	Audio visual	Sheets, Sketches, tutorials, market survey of materials
1	Recapitulation of Timber as building material and its Joinery details.	To make students aware of joinery details in timber	17 th June			Sheets
2	Introduction to floor as building element & different types of flooring materials. Timber flooring - Single, double and triple	Timber flooring and its construction techniques	24 th , 25 th June, 1 st ,2 nd ,8 th July	Power point presentation	https://www.youtube.com/watch?v=PmgOW6_yyc	Tutorial

	flooring. Other types of floor					
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Test on above two topics (19th July 2020)

3	Introduction to staircases – materials and design consideration. Terms related to timber staircase	To understand the Design guidelines for staircases and to understand its graphical representation	9th, 15th and 16th July 2020	Power point presentation		Tutorial
4	Introduction to Roofs. Timber roofs.	To understand the roof geometry and its different forms	22nd, 23rd and 28th July	Power point presentation		Tutorial Sheet
5	Introduction to steel staircase	Steel as a construction material for staircase	30th July	Power point presentation	-	Tutorial Sheet

Test on above two topics (Timber roofs and steel staircase) 3rd August 2020

6	Introduction to materials of RCC, cement, sand aggregates	To understand Materials Availability Proportions	5th August	Power point presentation	-	Tutorial
7	Reinforcement arrangement and Schedule of Reinforcement for different	To understand the geometry of RCC elements: Columns	10th August	Power point presentation	-	Sheets

	types of columns					
8	Reinforcement arrangement of RCC footings- Isolated, combined and eccentric footing	To understand the reinforcement details of foundations	12th and 17th August	Power point presentation	https://www.youtube.com/watch?v=1fzVzIOWV3A https://www.youtube.com/watch?v=D5ZMhNEqNMY	Sheets
9	Schedule of Reinforcement for RCC column and column footings	To understand the reading of structural drawing	19th August	Power point presentation	-	Sheets
10	Reinforcement of RCC Beams and chajjas	To explain reinforcement details of other RCC elements	24th and 26th August	Power point presentation	https://www.youtube.com/watch?v=Xs8c_Oi2LBA	Sheets
11	Slab reinforcement	To explain the difference bet. one way, two way, continuous and cantilever slab	31st August 2nd ,7th Sept	Power point presentation		Sheets
Test on RCC elements covered till date(9th September)						
12	Introduction to RCC staircase	Reinforcement of RCC staircase	14th and 16th Sept	Power point presentation	sheets	Sheets
13	Introduction to Steel truss	Different geometric forms of trusses and truss details	21st and 23rd Sept	Power point presentation	Sheets	Sheets

14	Introduction to North light truss	North light truss details	28 th Sept	Power point presentation	Sheets	Sheets
Test on above three topics 30th Sept 2020						
Final portfolio submission 5th October						

Assignments shall be evaluated as follows:

Sketch book	Model	Site Visit	Tutorials	Market Surveys(material)
Quality of Sketches	Scale & Proportion	Site Observations and method of documenting site visit report (compilation on sheet, audio visuals/photographic documentation.	No. of questions	Information from surveys
Proportion	Material		Contents of Ans.	Reviews

Evaluation Scheme

	Description of CO	Weightage in terms of marks (cumulative marks should not exceed 60)	Output (Test/Essay/ Sheets/ppt/model/Review/anyother)
CO1	Unit -1 Study of different types of floors in timber. Knowledge of Flooring materials-specifications	4	Test and sheet

CO2	Unit - 2 Learning design guidelines for staircases, its geometry & understand its graphical representation. Study of Staircases in Timber	4	Test and sheet
	Steel staircase	2	Test and sheet
	RCC staircase	4	Test and sheet
CO3	Unit - 3 Study of different geometric forms of trusses, construction details in steel & timber, introduction to various steel trusses, learning of North light trusses-applications, materials and method of construction	6	Test, sheets and model
CO4	Unit - 4 Gaining knowledge of RCC structural systems. Understanding proportions, geometry & materials of RCC structural elements.	2	Test
	Studying Reinforcement details of foundations , one way & two way slab & other RCC structural elements. To understand how to read structural drawings.	8	Test and sheets

Assignments shall be evaluated as follows:

CO1	CO2	CO3	CO4	Sessional	Plates/Models/S ketch book	Site visit	Attendance	TOTAL
U-1	U-2	U-3	U-4					
4	10	6	10	20	20	10	20	100

ARCHITECTURAL GRAPHICS

Team –Ar. Vishwas Dikhole, Dr. Madhura Rathod, Dr.Tarika Dagadhkar, Ar. Seema Burele

Third semester Graphics, subject helped students to learn about perspective, its types and methods of drawing. This semester will take students to the world of perspectives.

FORMAT FOR TEACHING PROGRAM

DATES	TOPIC	OBJECTIVES	ASSIGNMENTS
UNIT I			
18 th and 19 th August 2020	Introduction to perspective - vocabulary, types and methods	To know the basic concepts of perspective like stand point eyelevel ,picture plane and to understand the different methods of drawing perspective	Sheet and sketchbook
25 th 26 th august, 1 st , 2 nd , 8 th ,9 th 15 th , 16 th September 2020	Introduction and problems on Parallel Perspectives by direct method.	To understand the methods of drawing parallel perspective. Various examples on blocking ,height reductions and for interiors	10 no. A2 size sheets
Unit-I Sessional 2020 22nd September			
Unit I submission on 23rd September 2020			

UNIT II			
29 th , 30 th September, 6 th , 7 th , 13 th , 14 th , 20, 21 st , October 2020	Detail explanation of angular perspective – Direct Method	To understand the methods of drawing angular perspective. Various examples on blocking ,height reductions and for interiors	6 no. A2 size sheets
27 th and 28 th october	Exercises on two point perspectives – measuring point methods	Measuring point method for interiors and building forms	6 no. A2 size sheets
Submission of Unit II on 3rd November 2020			
UNIT III			
3 rd , 4 th , 10 th , 11 th November 2020	Exercises on building elements - two point perspectives - measuring point methods	Practicing their skills on actual drawings made by them in Design.	2 no. A2 size of design Project
17 th , 18 th , 24 th , 26 th November 2020	Building perspective One point perspective	Sharpening the psychomotor skills.	2 no. A2 size of design Project
	Interior views by one /two point perspective		2 no. A2 size of design Project
1 st , 2 nd , 8 th , 9 th December 2020	<i>Three point perspective</i>	<i>Improving the skills of visualising the group of buildings through three point perspective either through birds eye view or worms eye view.</i>	2 no. A2 size of design Project
Pre-Final Submission on 16th December 2020			
Final Portfolio submission on 23rd December 2020			

Sr. no	Description of CO	Weightage in terms of marks (cumulative marks should not exceed 60)	Output (Test/Essay/ Sheets/ppt/model/Review /anyother)
1	Introduction to perspective - vocabulary, different types of perspective, methods for drawing the perspective.	3	Sheets and sketchbook
2	Introduction and problems on Parallel Perspectives by direct method and measuring method	12	Sheets and sketchbook
3	Introduction and problems on angular Perspectives by direct method and measuring method	10	Sheets and sketchbook
4	Three point perspective	5	Sheets and sketchbook

Evaluation Scheme:-

Sessional Marks only- 50

Mini. Marks: 25

Topics	Max Marks
Portfolio	30
Attendance	10
Sessional	10
Total	50

Sr. No	Roll No.	NAME OF STUDENT	CO1	Attainment	CO2		CO3		CO4		Sessional	Attendance	TOTAL
			U-1		U-2		U-3		U-4				
		Max. Marks	3	Y/N	12		10		5		10	10	50

History of Art and architecture

Faculty involved: **Dr. Roopal Deshpande, Ar. Nehal Maheshwari**

SCHEDULE OF HISTORY OF ART AND ARCHITECTURE

Course Outcomes (CO)

CO1 -To understand the impact of social changes during the Delhi Sultanat, development of provincial regions and establishment of Mughal rule on architecture.

CO2 –Impact of Industrial Revolution, social and political changes on architecture and emergence of era of modern architecture

CO3 –To introduce the student the broader perception of city planning and design through New Delhi & Chandigarh

CO4- Introduce to student political and social changes witnessed by India of the Post Independence period on the new vocabulary of India

CO5- To introduce students unfold the learning and knowledge of the architectural detailing through sketches of prominent structures introduced through the course

DATE	TOPICS TO BE COVERED	TASK GIVEN
19/06/2020	<ul style="list-style-type: none">• Introduction to syllabus, purpose of learning history• Introduction to Islamic Architecture, its concepts, its ideology, its rulers, their contribution etc.• Difference between religious structures, typical mosque and a temple	Notes
22/06/2020	<ul style="list-style-type: none">• Introduction to modern architecture• Impact of industrial revolution on society and architecture and emergence of steel and concrete as new material	Notes
23/06/2020	<ul style="list-style-type: none">• Imperial style, Slave dynasty of Tomb typology and Mosque typology in India	Sketches/notes

29/06/2020	<ul style="list-style-type: none"> • Steel as a material • Concrete as a material • School of thoughts - (Chicago School, Bauhaus School) 	Sketches/notes
30/06/2020	<ul style="list-style-type: none"> • Imperial style, Slave dynasty of Tomb typology and Mosque typology in India 	Sketches/notes
6/07/2020	<ul style="list-style-type: none"> • Contemporary Architecture (in West), Philosophy and early works of Master architects – Gropius, Mies Van Der Rohe, F.L Wright, Le Corbusier 	Sketches/notes
7/07/2020	<ul style="list-style-type: none"> • Imperial style, Khalji, Tughlaq, Sayyad, Lodi Dynasty • Evolution of tomb typology and Mosque typology in India 	Sketches/notes
13/07/2020	<ul style="list-style-type: none"> • Impact of IR on Indian Architecture • 	Sketches/notes
14/07/2020	<ul style="list-style-type: none"> • Provincial style- Gujrat, Mandu, Jaunpur, Gulbarga, Provincial style - Bengal 	Sketches/notes
20/07/2020	<ul style="list-style-type: none"> • Philosophy and works of Master Indian Architect – B.V Doshi, Charles Correa, 	Sketches/notes
21/07/2020	<ul style="list-style-type: none"> • Mughal Architecture – contribution of Babar and Humayun • Mughal Architecture – Contribution of Akbar, Planning principles of Fatehpur Sikri 	Sketches/notes
27/07/2020	<ul style="list-style-type: none"> • 	Sketches/notes
28/07/2020	<ul style="list-style-type: none"> • Mughal Architecture – Contribution of Jahangir and Shahjahan • Marble Architecture and Climax of Mughal Style – The Taj Mahal 	Sketches/notes
3/08/2020	<ul style="list-style-type: none"> • Planning Concept of Chandigarh, Delhi and study of its important administrative buildings, Navi Mumbai 	
4/08/2020	<ul style="list-style-type: none"> • Philosophy and works of Master Indian Architect – Raj Rewal, Achyut Kanvinde, Laurie Baker 	

Evaluation Scheme:-

Subject Marks - 100

Mini. Marks: 50%

Topics	Max Marks
Univ. paper	70
Sessional	30
Total	100

Climate and Architecture

Team: Ar. Vaijayanti Yadav, Ar. Sneha Bodhankar

Dates	Syllabus	Task Given/ Activity
	Recapitulation and General introduction about subject	Interaction
	Study of vernacular Buildings as per climatic zones in India	Lecture
		Discussion
		Group work- Finding out the respective examples
		Review
		Test
		Presentation
		Passive techniques Contemporary passive techniques
	Lecture	
	Group work- Finding out the respective examples	
	Review	
	Presentation	
	Effect of climate on: Topography, Vegetation, Form, Material, Surface of building Climatic data	Lecture
		Lecture, test
	Presentation of data and Analysis , Methods & Approaches to Design	Lecture + discussion
		Studio

Course Outcome-

CO1 - Study of vernacular Buildings as per climatic zones in India

CO2- Passive techniques Contemporary passive techniques

CO3 - Effect of climate on: Topography, Vegetation, Form, Material, Surface of building Climatic data

CO 4 -Presentation of data and Analysis , Methods & Approaches to Design

Evaluation scheme

Subject Marks - 100

Mini. Marks: 50%

Topics	Max Marks
Univ. paper	70
Sessional	30
Total	100

Structural Design and Systems-III

Team: Er. Roopal Wadegaonkar

Dates	Syllabus	Task Given/ Activity
July	Stability of retaining walls Direct and bending stresses	Lecture
		Lecture
		Submission -1
		Lecture
August	Stress- strain curve Column by Eulers and Rankins method	Lecture
		Lecture
		Lecture
	Bending moment and shear force diagram of simply supported and cantilever beams	Lecture
Lecture		
September	Principle stresses and strains Application of Mohr's circle Concept of analytical method	Lecture
		Lecture

CO1 To understand Principal stresses & strain : Application of Mohr's Circle method, study of concepts by analytical method.

CO2 Study of Direct & bending stresses: Concept & application

CO3 Learning Stability of Retaining walls.

CO4 Study of Stress strain curves for concrete & steel (MS & TS)

CO5 Understanding Column & struts: Eulers & Rankins theory – concept & application.

CO6 Study of Hoop stress / longitudinal stress in cylinders & pipes.

CO7 Use of Simply supported, Cantilever beams – BM & SF Diag,

Subject Marks - 100

Mini. Marks: 50%

Topics	Max Marks
Univ. paper	70
Sessional	30
Total	100

Surveying and Levelling

Team: Shri. Shirkhedkar, Ar. Sneha Bodhankar

Date	Contents	Submission
4 th week of July	Chain and compass survey, traversing map Survey of cluster of buildings map	
4 th week of Aug	Leveling: using dumpy level and automatic level.	Assignment I (Aug 2018)
4 th week of Sept	Contour survey, plotting contour maps	Assignment II (Sept 2018)

CO1 – Understanding the importance of Surveying in Architecture - its aim, objectives, types of surveying methods and application, and different instruments used for Surveying.

CO2 – Understanding the method of Chain and compass survey, traversing map Survey of cluster of buildings map.

CO3 – Understanding the method of Leveling: using dumpy level and automatic level.

CO4 – Understanding the method of Contour survey and plotting of contour maps.

Evaluation Scheme

Attendance	Sessional exam	Assignment 1	Assignment 2	Total
10	10	15	15	50

ELECTIVE A: ENVIRONMENTAL STUDIES

Team: Ar. Tarika Dagadkar, Ar. Sarika Joshi

INTROUCTION: Architecture and Environmental Studies are natural companions. It is impossible to design good buildings without understanding their relationship to natural systems. It is also impossible to understand the natural environment without knowing how human intervention affects it – both positively and negatively. As man and nature begin to recognize their interdependence, the study of environment takes on a whole new meaning. Architecture and the Environment encourage students to explore these relationships from a variety of perspectives.

Due to co-vid 19 pandemic situation, this semester we are forced to stay at our place and try various platforms to cover up the losses in our regular teaching learning module. For that we are introducing “SWAYAM” On line course floated on www.swayam.gov.in Fulfilment of this on line course program will be the part of subject assessment before the commencement of above mentioned online course following module will be conducted.

AIM:To develop awareness and familiarity with environmental studies and its integration with Architectural design.

OBJECTIVE:The focus of the study will be on building rating systems practised in Indian context.

Outline of the course:

- 1 Recapitulation of environmental concerns and discussion of issues related to climate and construction industry.
- 2 Introduction to Green Buildings: Concept and necessity.

- 3 Green Building Rating System: The seven categories in the rating system: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Innovation in Design and Regional Priority
- 4 Water Efficiency: Innovative Wastewater Treatment and Reuse and Water Use Reduction and Re-use factors.
- 5 Materials and Resources: Building Reuse: Maintain Existing Walls, Floors, and Roof, Construction Waste Management, Materials Reuse, Recycled Content, Regional Materials and Certified Wood.

Assignment

- 1 Introduction to a design exercise (Project application): Design of a small building with an objective to integrate categories of green building rating.
- 2 Review of a design project considering various factors listed above.
- 3 Detail Case study of Green rated building at Nagpur.

Recommended Swayam NPTEL Courses:

- Principles and applications of building science By Prof. E. Rajasekar | IIT Roorkee
- Environment Natural resources and Sustainable Development By Prabhakar Rao Jandhyala | University of Hyderabad
- Ecology and Environment By Prof. Abhijit P Deshpande, Prof. Ravi Krishna R | IIT Madras

Sr. No.	Contents	Learning Objective	Teachers' Input	Expected Output	Dates	Submission Date	Marks weightage
1	Recapitulation of environmental concern	To introduce students to the subject through informal discussion	discussion	collage	26 TH June 2020	3rd July	5
2	introduction to green building and rating system	understanding the concept and necessity	presentation on Green building	poster	3th July	10 th July	5
3	Introduction to IGBC and application of green building criteria	understanding the importance and application of each criteria	presentation on seven categories in rating system	PPT on case study of one rated Green building	10th July		
4	Brief intro to sustainable sites	understanding the site specific design consideration	Discussion on parameters of sustainable site planning		17th July	24 th July	30
5	Brief intro to GRIHA rating system	understanding the concept and necessity	presentation on GRIHA rating system		24th july2020		
6	introduction to innovative water conservation, energy efficiency, solar passive architecture materials and resources	Understanding the issues relating to our immediate surrounding	class discussion	Detailing sheet of elements of green building to be used in Design	31st July 2020	14 th Aug 202	30
Test							10
FINAL SUBMISSION						14th August 2020	80
TOTAL MARKS - ASSIGNMENTS (60) + TEST (20) + ATTENDANCE (20) = 100							

Course Outcome	Description of CO	Weightage in terms of marks (cumulative marks should not exceed 60)	Output (Test/Essay/ Sheets/ppt/model/Review/anyother)
CO1	Sensitising the students related to environmental concerns and discussion of issues related to climate and construction industry.	10	Poster/Collage
CO2	Introduction to Green Buildings: Concept and necessity.	10	Review
CO3	Green Building Rating System: The seven categories in the rating system: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Innovation in Design and Regional Priority	30	PPT
CO4	Water Efficiency: Innovative Wastewater Treatment and Reuse and Water Use Reduction and Re-use factors.	10	Sheet
CO5	Materials and Resources: Building Reuse: Maintain Existing Walls, Floors, and Roof, Construction Waste Management, Materials Reuse, Recycled Content, Regional Materials and Certified Wood.	10	Sheet

Elective A

Vernacular Architecture

Team: Ar.Seema Burele, Ar. Isha Pawar.

Vernacular architecture is based on needs of the local people, construction materials and reflects local tradition; it was relied on design skills and tradition of local artisans. However since the 19th century, seeing the benefits of vernacular architecture in terms of sustainability, energy efficiency, many professionals have adopted the style. It tends to evolve over time to reflect the environmental, cultural technological, economic, and historical context in which it exists.

It is important to understand the adaptive use of traditional knowledge in vernacular construction in the present context.

Sr · N o	Topic	Teachers Input	Expected Output	Duration/ Submission
1.	Introduction to Vernacular Architecture	PPT, Discussion	Understanding Peculiar characteristics of vernacular architecture from various region.	19 th June
2.	Interpretation of vernacular architecture in terms of its – <ul style="list-style-type: none">• Functional aspects.• Cultural aspects.• Climatic considerations.• Construction methods and techniques.• Materials	Study of Indian context w.r.t. Vernacular architecture and its parameters.	Select and study any one region from Indian.. (Sheets)	26 th June Assignment I (3 rd and 10 th July)
3	Understanding the typical module of vernacular architecture from different climatic zone	Studying the details of the module	Sheets giving the details of vernacular unit selected from particular climatic region.	17 th July
4.	Reinterpretation of vernacular architecture in Modern construction	PPT, Discussion	Understand its significance in modern era.	24 th July Assignment II
5.	Study of Architects who worked on vernacular architecture & their projects.	Discussion	Select one Architect & study their project.	31 st July Assignment II (2 nd Aug)
Submission of all assignments 7 th August				

Course Outcomes

CO1 - Understanding the concept of Vernacular Architecture and study of Indian Vernacular Architecture in detail.

CO2 - Studying the vernacular architecture of different regions with respect to– Functional aspects, Cultural aspects, Climatic considerations, Materials and Construction techniques.

CO3 – Understanding the concept of contemporary vernacular architecture through different precedent studies.

CO4 - Studying contemporary vernacular architecture through the works of different architects.

Course Outcomes (CO)	Assessment Tools		
	College (Internal) 100		
	Description of CO	Weightage in terms of marks (cumulative marks should not exceed 60)	Output (Test/Essay/ Sheets/ppt/model/Review/anyother)
CO1	Understanding the concept of Vernacular Architecture and study of Indian Vernacular Architecture in detail.	10	Power point presentation
CO2	Studying the vernacular architecture of different regions with respect to– Functional aspects, Cultural aspects, Climatic considerations, Materials and Construction techniques.	20	Power point presentation and test
CO3	Understanding the concept of contemporary vernacular architecture through different precedent studies.	10	Power point presentation
CO4	Studying contemporary vernacular architecture through the works of different architects.	20	Power point presentation and test

Evaluation Criteria :

Attendance	Sessional exam	Assignment 1	Assignment 2	Assignment 3	Total
20	20	15	15	30	100

Elective B

Architectural Documentation

Teacher in Charges: Dr. Neeta Lambe, Ar. Sneha Bodhankar

Introduction:

Architectural documentation is the capture of information relevant to understanding the tangible as well as intangible aspects of physical configuration, history, evolution and condition of historic sites at known points in time. It is based on the recording of primary evidence (the historic fabric itself as well as documentary, pictorial and other evidence) and the research of secondary sources.

In this semester, through this elective, Students would be exposed to intangible aspect of architecture that is the role of an art and craft in Architecture.

India is a very vibrant country in terms of its culture, dialect, art and craft, cuisine, dressing etc. The impact of this variety of influences on architecture is reflected through the very rich and time tested traditional knowledge systems of the country. Art is reflected in architecture and many a times, there is an impact of architecture on art and craft. Here, in this elective, we will be dealing with the study of the art and craft of India and special emphasis would be given to the Fabric or textile tradition of India. From Kashmir to Kanyakumari, every region has its own handloom techniques that are used to weave unique fabrics. Through the study , we will try to identify the peculiarities of textile of each region

Course Objectives: To create resource material through understanding the heritage for education and training of students in enabling them to develop their skills and comprehension of the discipline of architecture.

Studio Schedule

The elective has two modules.

Module 1: Study of Art and Craft of India as Intangible heritage

Mode of presentation: Movie/ppt/documentary

Module 2 : Study of textile tradition of India as cultural heritage

Mode of presentation: ppt/sheets

Evaluation Criteria-

CO1	Understanding of meaning of Architectural Documentation, heritage and Conservation	Discussion and interaction	20 marks
CO2	Introduction to intangible heritage.... Study of Art and Craft of India as Intangible heritage	Assignment 1	30
CO3	Introduction to cultural heritage Study of textile tradition of India as cultural heritage	Assignment 2	30
CO4	Sessional exam		20

Elective B

Critical Appriciation

Teacher in Charges: Dr. Neeta Lambe, Ar. Sneha Bodhankar

Objective: The overall objective of this teaching program is to sensitise students towards the appreciation of different art forms, and through this understanding learn the critical appreciation of architecture.

Unit	Contents	Learning Objective	Expected Output	Dates	Submission Date	Marks weightage
Unit 1	Introduction to elements of Design in Buildings	To introduce students to critical appreciation through informal discussion	Composition of images on A3 sheet	26 june	26th June	20
Unit 2	Viewing of media - advertisements (4-5 genres).	Presentation on Advertisement and introduction of assignment on Architecture as a parallel to different art forms	sketches and notes with relevant examples	3rd july		
		Discussion on presentation by students on assignment		10th july		
	Presentation by Ar. Jatin Moghe on Culture and Architecture	To introduce students how analysis can be done in different ways		17th july		

Presentation on Analysis of Building	To introduce students how analysis can be done in different ways		24th july		
	presentation by students	Presentation with inferences	31th july		
	Final Submission		7th Aug	7th Aug	

FINAL SUBMISSION			7th Aug 2020	60
TOTAL MARKS - ASSIGNMENT 1 (20) + ASSIGNMENT 2 (60) + ATTENDANCE (20) = 100				

CO1 To understand the importance of critical appreciation in architecture through Principles of design.

CO2 To identify relevant representative building from different eras; Industrial Revolution, World War I, World War II, earth Summit and Digital Architecture.

CO3 To Trace the social context and analyse data through different sources like, Books, Fashion, Family structure and other Art forms of the identified era's.

CO4 To establish connection between artforms and architecture prevalent during the identified period.

CO5 To conclude the study in the form of narration / essay writing weaving across the identified period.

Evaluation Criteria :

Attendance	Sessional exam	Assignment 1-4	Assignment 5	Total
20	20	40	20	100