



WOMEN'S EDUCATION SOCIETY'S
SMT. MANORAMABAI MUNDLE
COLLEGE OF ARCHITECTURE
NAGPUR

FIRST
SEMESTER

ACADEMIC
BOOKLET

2020-
2021



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IN-CHARGES

First Year In-Charge
Ar. Piyusha Rathor

Design Co-Ordinator
Ar. Piyusha Rathor

Construction Co-Ordinator
Ar. Rashmi Thakre

Graphics Co-Ordinator
Prof. Vishwas Dikhole

Section Co-Ordinators
Sec A – Ar. Samruddhi
Amte

Sec B – Ar. Rashmi Thakre
Sec C – Ar. Madhuri Gehani

FIRST YEAR FACULTY



Dr. Ujwala Chakradeo



Er. Rupal Wadegaonkar



Prof. Vishwas Dikhole



Dr. Sampada Peshwe



Dr. Roopal Deshpande



Dr. Madhura Rathod



Prof. Atula Patwardhan



Ar. Aakansha Agarwala



Ar. Rashmi Tijare



Ar. Piyusha Rathor



Ar. Rashmi Thakre



Ar. Medha Pophale



Ar. Samruddhi Amte



Ar. Priyanka Sambare



Ar. Isha Pawar



Ar. Sarika Joshi



Ar. Harpreet Saggu



Ar. Nehal Maheshwari



Ar. Madhuri Gehani



Dr. Kalyani Kale

FACULTY & SUBJECTS

FIRST YEAR IN-CHARGE : Ar. Piyusha Rathor

CO-ORDINATORS -

Sec A - Ar. Samruddhi Amte

Sec B - Ar. Rashmi Thakre

Sec C - Ar. Madhuri Gehani

ARCHITECTURAL DESIGN - I & ALLIED DESIGN STUDIO - I

Co-ordinator- Ar. Piyusha Rathor

Dr. Sampada Peshwe, Dr. Madhura Rathod, Prof. Atula Patwardhan, Ar. Rashmi Tijare, Ar. Aakansha Agarwala, Ar. Rashmi Thakre, Ar. Priyanka Sambare, Ar. Samruddhi Amte, Ar. Sarika Joshi, Ar. Harpreet Saggu, Ar. Nehal Maheshwari, Ar. Madhuri Gehani

BUILDING CONSTRUCTION AND MATERIALS – I

Co-ordinator – Ar. Rashmi Thakre

Dr. Sampada Peshwe, Dr. Roopal Deshpande, Ar. Piyusha Rathor, Ar. Samruddhi Amte, Ar. Madhuri Gehani

ARCHITECTURAL GRAPHICS - I

Co-ordinator – Prof. Vishwas Dikhole

Prof. Atula Patwardhan, Ar. Piyusha Rathor, Ar. Samruddhi Amte, Ar. Rashmi Thakre, Ar. Madhuri Gehani

HISTORY OF CIVILIZATION

Ar. Piyusha Rathor, Ar. Rashmi Thakre

STRUCTURAL DESIGN & SYSTEMS - I

Er. Rupal Wadegaonkar

COMPUTER APPLICATION I

Dr. Sampada Peshwe, Ar. Medha Pophale, Ar. Priyanka Sambare, Ar. Nehal Maheshwari

WORKSHOP

Dr. Roopal Deshpande, Prof. Atula Patwardhan, Ar. Samruddhi Amte, Ar. Nehal Maheshwari

ELECTIVE I- Sketching and Rendering

Prof. Atula Patwardhan , Ar. Nehal Maheshwari

ELECTIVE I – Appreciation of Art & Architecture

Dr. Madhura Rathod, Ar. Isha Pawar

ELECTIVE I – Institutional Project I- Sanskrit

Dr. Kalyani Kale

PHYSICAL TRAINING

Dr. Nalini Wadjikar

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.

Vision

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
- Discovery
- Discipline
- Creativity
- Collaboration
- Excellence
- Innovation
- Respect
- 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.

POLICIES FOR STUDENTS

Code of Conduct

Punctuality - It is mandatory for students to be punctual to 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 coordinators.

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 the month for students. Every student is expected to go through the displayed attendance and has a chance to rectify the record within 8 days by talking to the class teacher if her attendance has been wrongly recorded.

In case of absenteeism, student shall bring a letter of absence duly signed by her parents/guardian. However, as per RTM Nagpur University norms, a student having less than 75% attendance 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 programs organized by the college from time to time.

Attendance for programme of 26th January and of 15th August is mandatory for every student.

Study tours - Every year study tours are arranged for students of different years as per their curriculum requirements. Active participation in StudyTour 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 its application.

Computer center: A fully equipped computer lab with terminals, plotter, printer, scanner 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 to class and have cleared all examination 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.

Student Council

The Student Council is 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. 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. The organization set up for student council comprises of -

President
Vice-president
Secretary
Vice-secretary
Treasurer

CELL & COMMITTEES

DISCIPLINE COMMITTEE

Sr. No	NAME	DESIGNATION	COMMITTEE POST	CONTACT NO.
1	Dr. Ujwala Chakradeo	Principal	Chairperson	9890601461
2	Ms. Atula Patwardhan	Assistant Professor	Committee In charge	
3	Dr. Pratima Dhoke	Professor	Member	9373118875
4	Mr. Gajanan Pilpile	Administrative Officer	Member	9960298719
5	Ar. Samruddhi Amte	In charge of College Activities	Co-Incharge	9921013194
6	Ar. Sonal Fuke	College Counsellor	Member	9881761437
7	Ar. Piyusha Rathor	Class Coordinator- 1st Year	Member	9146682218
8	Ar. Sneha Bodhankar	Class Coordinator- 2nd Year	Member	9595655933
9	Ar. Vaijayanti Yadav	Class Coordinator- 3rd Year	Member	9823009998
10	Ar. Medha Pohale	Class Coordinator- 4th Year	Member	9021370270
11	Ms. Manasi Singhania	President Students' Council	Students' Representative	9329651598

GRIEVANCE REDRESSAL COMMITTEE for student

	NAME	DESIGNATION	COMMITTEE POST	CONTACT NO.
1	Dr. Pratima Dhoke	Professor, Vice Principal (Administration)	Member	9373118875
2	Dr. Sampada Peshwe	Associate Professor, Acting Academic Head	Member	7350720577
3	Ms. Atula Patwardhan	Assistant Professor	Committee In charge	9689870773
4	Mr. Gajanan Pilpile	Administrative Officer	Member	9960298719
5	Ms. Manasi Singhania	President Students' Council	Students' Representative	9329651598

CELL & COMMITTEES

ANTI - RAGGING COMMITTEE

Sr. No	NAME	DESIGNATION	COMMITTEE POST	CONTACT NO.
1	Dr. Ujwala Chakradeo	Principal	Head of Institution	9890601461
2	Mr. Gajanan Pilpile	Administrative Officer	Representation of Non Teaching Faculty	9960298719
3	Prof. Atula Patwardhan	Faculty Members	Cell in Charge	9689870773
4	Prof. Vishwas Dikhole	Faculty Members	Member	9373118875
5	Senior Police Inspector, Gittikhadan Police Station, Nagpur	Police Administration	Police representative	07122580127
6	Adv. Mrs. Indira Bodade	Advocate	Legal advisor	+919422113447
7	Ms. Manjusha Joshi,	Press reporter	Local Media	8087001241
8	Mrs. Vishpala Hundekari, Founder Ekibeki	NGO	NGO representative	9820238003
9	Shrikant Digambar		Parent representative	+917397934238
10	Radhika Digambar	student council member	Students' Representative	9850487645
11	Manasi Singhania	President Students' Council	Students' Representative	9329651598

HOSTEL COMMITTEE

	NAME	DESIGNATION	COMMITTEE POST	CONTACT NO.
1	Prof. Atula Patwardhan	Assistant Professor	Committee Incharge	9689870773
2	Mrs. Kiran Simon	Warden	Member	07122511304
3	Mr. Gajanan Pilpile	Administrative Officer	Member	9960298719

SPORTS COMMITTEE

Sr. No	NAME	DESIGNATION	COMMITTEE POST	CONTACT NO.
1	Ms. Nalini Wadjkar	Sports Faculty	Committee In charge	9359319835
2	Ms. Atula Patwardhan	Assistant Professor	Member	9689870773
3	Mr. Gajanan Pilpile	Administrative Officer	Member	9960298719

CELL & COMMITTEES

	Over all Janeev Jagrutee Club In Charge	Prof.Atula Patwardhan Ar.Madhuri Gehani
	Students council In-charge	Ridhi Kothari Kadambari Dakshindas
1	Rekha(Sketching) mentor	Prof.Atula Patwardhan
		Ar.Harpreet Saggoo
	Student in charge	Isha Chauhan, Kuntal Purohit Suruchi Parsawar, Pooja Saiwal
2	Groove(Dance) mentor	Ar.SeemaBurele Ar.NehalMaheshwari
	Student in charge	Ayushi kashimkar ,Oshika Meshram Anagha Kamde, Jigyassa Jha
3	Rhythm(Music) mentor	Ar.Sarika Joshi Ar.Vaijayanti Yadav
	Student in charge	Radhika Digambar, Ruchi Dodwani Nayan Agarwal, Arohi Kulkarni
4	Frame (Photography) mentor	Dr.SampadaPeshwe Ar.SamruddhiAmte
	Student in charge	Sumedha Sawalakhe, Archita karambe Mansi Singhania, Samiksha Pichhode
5	Kahania (Reading) mentor	Dr.NeetaLambe Ar.Poornima Deshpande
	Student in charge	Ankita Jamgade, Prajwali Kale Shreya Sangwai, Janhavi Gosewade
6	Reel (Movie) mentor	Ar.Sujata Godbole Ar.Priyanka Sambare
	Student in charge	Pranali Gabhane ,Perna Kothari Muskaan Modi ,Aliza Qureshi

CELL & COMMITTEES

Student Council

Name - Isha Chauhan Post - Coordinator Phone no. - 9511845197	Name - Pranali Gabhane Post- Treasurer Phone no. - 7057623655
Name - Mansi Singhania Post - Coordinator Phone no. - 9329651598	Name - Suruchi Parsawar Post - Design head Phone no. - 8830215144
Name - Anagha Kamde Post - Cultural head Phone no. - 8805693644	Name -Sumedha Sawalakhe Post - Design head Phone no. - 9850201596
Name - Radhika Digambar Post - Cultural head Phone no. - 9850487645	Name - Ayushi Kashimkar Post - Design head Phone no. - 9130618322
Name - Ankita Jamgade Post - Editorial head Phone no. - 9511731692	Name- Kadambari Dakshindas Post - Activity head Phone no.- 7219840541
Name - Shreya Sangwai Post - Editorial head Phone no. - 8888735134	Name - Riddhi Kothari Post - Activity head Phone no. - 8412942210
Name - Muskan Modi Post - Treasurer Phone no. - 9325202893	

UNIVERSITY SCHEME OF EXAM

SCHEME OF EXAMINATION – B.Arch.																	
FIRST YEAR B.ARCH.																	
Semester – 1																	
Sr. No.	Sub. Code	Sub. Name	Load Per Week					Credits					Paper / Sessional	Duration in Hours	Max. Marks	Total Marks	Min. Pass Marks
			L/D	T	S	P	Total	L	T	S	P	Total					
1	1S-A-1	Architectural Design -I	1	0	3	0	4	1	0	4.5	0	5.5	Sessional		200	200	100
2	1S-A-2	Allied Design Studio-I	1	0	2	0	3	1	0	3	0	4	Sessional		100	100	50
3	1S-A-3	Building Construction and Materials -I	2	0	3	0	5	2	0	4.5	0	6.5	Sessional		150	150	75
4	1S-A-4	Architectural Graphics I	2	0	0	2	4	2	0	0	1	3	Sessional		100	100	50
5	1S-A-5	Structural Design & Systems-I	2	1	0	0	3	2	0.5	0	0	2.5	Sessional		100	100	50
6	1S-A-6	History of Civilisation	2	1	0	0	3	2	0.5	0	0	2.5	Sessional		100	100	50
7	1S-A-7	Computer Application I	1	0	0	1	2	1	0	0	0.5	1.5	Sessional		50	50	25
8	1S-A-8	Workshop I	0	0	0	3	3	0	0	0	1.5	1.5	Sessional		100	100	50
9	1S-A-9	Elective I	1	2	0	0	3	1	1	0	0	2	Sessional		100	100	50
Total							30					29.0			1000	1000	
	Elective I	Art Appreciation / Numerical Ability / Presentation Skills / Sketching and Rendering / Public Speaking / Institutional Project 1															

Principles of aesthetic - (3 Hours)

Assignment - Understanding Basic Principles of Aesthetics through photographs of other artists and photographs clicked by students (group 5 assignment). Student have to select any art form - Painting/ Movie/ Drama/ Music/ Literature, & analyse it from Aesthetic point of view.

Teachers Input- Power point Presentation on Principles of aesthetics.

Objective - To Understand basic of aesthetics and application in various art forms.

Expected Output- A2 sheet with proper analysis & photographs clicked by students.

Introduction of Elements of Design & Organizational Principles in Composition - (9Hours)

Assignment - Creating 2D composition from - a)Point, line, plane b)Fractions

Objective - Introduction to Organizational Principles in composition.

Expected Output- A2 sheet with proper analysis.

Teachers Input- Power point Presentation.

Colour wheel - (3 Hours)

Assignment- Rendering the 2D composition with colour scheme.

Objective - To understand Color theory through color wheel and get proper knowledge of how to use colors in designs or any art work.

Expected Output- A2 sheet of creative color wheel & 2D rendered composition.

Teachers Input- Power point Presentation

TEST - Creative Colour Wheel (2 Hours)

ARCHITECTURAL DESIGN - I

Anthropometry & Ergonomics - (7 Hours)

Assignment- Documenting their and their family members measurements (2positions-standing and sitting). Documenting different spaces in their house along with furniture dimensions.

Objective -To understand the human dimensions anthropometry ergonomics- functional spaces and circulation spaces for various activities(formal & informal).

Teachers Input- Demonstrations

Expected Output- A2 sheet for group assignment .

Creative exercise - (7 Hours)

Objective -To convert 2d composition to 3d form & Application of scale, material and spatial experience to 3d form.

Teachers Input- Demonstrations and PowerPoint presentation.

Expected Output- A2 sheet for group assignment.

Design Co-Ordinator:
Ar. Piyusha Rathor

Design Team:

Sec A

Dr. Madhura Rathod,
Ar. Piyusha Rathor,
Ar. Priyanka sambare
Ar. Samruddhi Amte

Sec B

Dr. Sampada Peshwe
Ar. Rashmi Tijare,
Ar. Rashmi Thakre,
Ar. Sarika Joshi,
Ar. Nehal Maheshwari

Sec C

Prof. Atula Patwardhan,
Ar. Aakansha Agrawala,
Ar. Harpreet Kaur Saggi,
Ar. Madhuri Gehani

Objective of Allied Design Studio -I:
Developing skills in manual presentation techniques, use of various media of presentation, Principles of 2-D & 3-D compositions, Principles of Design.

Visual art :

Visual Art is aimed at providing knowledge and understanding of various visual arts and its importance. It further aims at developing the freehand drawing and rendering skills in different medium and using it as tool of expressing ideas visually.

Keywords :

point, line and plane, visual textures, optical illusion, Repetition, Variety, Radiation, Rhythm, Gradation, Emphasis & Subordination, Proportion, Harmony, Balance. hues, values, and shades. Color wheel, color composition, properties of color.

Documentation of Single activity (G+1)- (6 Hours)

Assignment – Documenting G+1 single activity for 8 to 10 people.

Objective – To understand the architectural intervention through single activity unit.

Teachers Input– Discussion and guidance for documentation.

Expected Output– A2 sheet showing the following: Location map, plan with facilitation, 2 section, elevations.

Major project (Individual work) - (9Hours)

Assignment – Designing the space for any selected activity and application of anthropometry and ergonomics.

Objective – To understand the space requirement for any activity.

Teachers Input– Discussion and guidance.

Expected Output– A2 sheet showing site plan, Plans, sections, elevation and views

Design Co-Ordinator:
Ar. Piyusha Rathor

Design Team:

Sec A

Dr. Madhura Rathod,
Ar. Piyusha Rathor,
Ar. Priyanka Sambare
Ar. Samruddhi Amte

Sec B

Dr. Sampada Peshwe
Ar. Rashmi Thakre
Ar. Rashmi Tijare,
Ar. Sarika Joshi
Ar. Nehal Maheshwari

Sec C

Prof. Atula Patwardhan,
Ar. Aakansha Agrawala,
Ar. Harpreet Kaur Saggu,
Ar. Madhuri Gehani

EVALUATION SCHEME

Attendance	Minor Project	Major Project	Viva	Total
60	60	105	75	300

Objectives of Architectural Design I

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

Keywords :

Anthropometry, Human dimensions, Circulation spaces, Form & Spaces, Spatial Experience, Elements of Built Form.

References :

- Ching Francis D. K., Form Space and Order.
- Ching Francis D. K., A Visual Dictionary of Architecture.
- Pierre Von Meiss –Elements of Architecture from form to place.
- Yatin Pandya- Elements of Space Making
- Christopher Alexander- Pattern Language.

CO 1- Understanding the basic building materials, such as brick, stone, cement, lime, concrete, Glass. Developing understanding about making choice of appropriate building materials.

CO 2 - Understanding the basic principles/rules of Brick masonry for its load bearing capacity and stability. Types of Brick masonry used in load bearing walls such as Flemish, English bonds, cavity walls and use of piers in load bearing walls.

CO 3 - Understanding the basic principles/rules of Stone masonry for its load bearing capacity and stability. Types of Stone masonry with dressed and undressed stones, Composite masonry.

CO 4 - Understanding concept of span and its application in creating openings in masonry walls with lintels and

arches. Structural difference in the behavior of lintel, arch and relieving arch.

CO 5 - Understanding the principles of wooden/timber Joinery. Types of timber and wood used in structural wood work. Basic types of joints and its applications in various building elements such as timber doors, windows and timber roofs.

Introduction to Building Construction as a subject & its relevance to Architectural Design - (2 Hours)

Topic - Building elements, types and subtypes, basic understanding of elements from foundation to roof - Purpose / function, utility and necessity of all such elements.

Introduction to common architectural vocabulary by moving around the college building.

Topic - Construction and the Logic of Stability as its basis, construction principles with respect to structural stability. Support and supported elements, concept of span and span - loading co-relation.

Teachers Input- Demonstration and Discussion.

Expected Output- Sketches in A3 Sketchbook.

Teachers Input- Discussion.

Expected Output- Sketches in A3 Sketchbook.

Introduction to Building Materials - (2 Hour)

Topic - Introduction to Brick as a Building Materials and its compositions.

Teachers Input - Tabular compilation on board.

Types of Bricks - (2 Hours)

Topic- Introduction to Various Types of Bricks.

Teachers Input- Discussion and board sketching.

Expected Output- Sheets & Sketches in A3 Sketchbook.

Brick Masonry - (4 Hours)

Topic- Introduction to principles and rules in Brick Masonry.

Teachers Input- Discussion and board sketching.

Expected Output - Sketches & notes in A3 Sketchbook.

Building materials- (2 Hours)

Topic- Introduction to Stone as Building materials.

Teachers Input- PPT Presentations & Videos..

Expected Output - Sketches & notes in A3 Sketchbook.

Brick Masonry - (6 Hours)

Topic - Types of Brick Masonry used in Load Bearing Walls such as English Bond & Flemish Bond (Single Flemish & Double Flemish Bond).

Teachers Input- Site visit for basics of Brick masonry and basic building components & elements.

Expected Output - Sheets & Sketches in A3 Sketchbook.

Building materials- (4 Hours)

Topic- Presentation on Lime and Cement as Building materials.

Teachers Input- PPT Presentations & Videos..

Expected Output - Sketches & notes in A3 Sketchbook.

Construction Co-Ordinator:
Ar. Rashmi Thakre

Construction Team :

Sec A -
Ar. Piyusha Rathor
Ar. Samruddhi Amte

Sec B -
Dr. Sampada Peshwe
Ar. Rashmi Thakre

Sec C -
Dr. Roopal Deshpande
Ar. Madhuri Gehani

Objectives of Building Construction and Materials

- To develop understanding about building materials and construction of various elements with its design principle and decision making process for selection of each.
- This also aim at introducing students with design ability for a certain building element integrating with architectural space and demand of time and place.

Keywords :

Building Elements & Components, Building Materials, Brick & Stone Masonry, Piers, Structural systems.

References :

- Building Construction by W.B.McKay,
- Barry - The Construction of Buildings.
- Building Construction by Sushil Kumar.
- The Textbookj of Building Construction by Bindra Arora.
- Building Construction by Rangwala.

Piers – (2 Hours)

Topic –Introduction to use of Piers (Attached & Detached Piers) in Load Bearing Walls.

Teachers Input– Discussion and board sketching.

Expected Output – Sketches in A3 Sketchbook.

Stone Masonry – (2 Hours)

Topic –Types of Stone Masonry with Dressed and Undressed Stones, Composite Masonry.

Teachers Input– Discussion and board sketching.

Expected Output– Sheets & Sketches in A3 Sketchbook.

Structural Systems – (8 Hours)

Topic – Introduction to Basic Structural Systems, Load Bearing, Frame Structure and Composite structure, load transmission, suitability, merits, demerits etc. Introduction and understanding of various Subsystem such as Horizontal, Vertical and foundation Sub systems with respect to structural functions, utility and application in building design and construction.

Teachers Input–Site visit for basics of structural systems, Load Bearing, Frame Structure and Composite structure. Discussion and board sketching.

Expected Output– Sheets & Sketches in A3 Sketchbook. Group work exploring systems through models/ Isometric views.

EVALUATION SCHEME

Attendance	Plates, Models	Site Visit	Sessional + Test	TOTAL
30	50	10	60	150

BUILDING CONSTRUCTION AND MATERIALS - I

Construction Co-Ordinator:
Ar. Rashmi Thakre

Construction Team:

Sec A –
Ar. Piyusha Rathor
Ar. Samruddhi Amte

Sec B –
Dr. Sampada Peshwe
Ar. Rashmi Thakre

Sec C –
Dr. Roopal Deshpande
Ar. Madhuri Gehani

Objectives of Building Construction and Materials

- To develop understanding about building materials and construction of various elements with its design principle and decision making process for selection of each.
- This also aim at introducing students with design ability for a certain building element integrating with architectural space and demand of time and place.

Keywords :

Building Elements & Components, Building Materials, Brick & Stone Masonry, Piers, Structural systems.

References :

- Building Construction by W.B.McKay,
- Barry – The Construction of Buildings.
- Building Construction by Sushil Kumar.
- The Textbookj of Building Construction by Bindra Arora.
- Building Construction by Rangwala.

C01- To introduce students to architectural lettering and dimensions in techniques. Introduction to architectural annotations and conventions including representation of various building materials and building components and introduction to graphic scales and their application.

C02- To enable students to express simple three dimensional objects and building components through technical drawings using various graphic projection systems such as Orthographic, Isometric, Axonometric projections.

C03- To introduce students towards scale drawings with plan/elevation/sections of a G+1 structure to demonstrate various metric scales especially indicating the vertical circulation & toilet details in section.

Assignment 1- (2 Hours)

Assignment – Architectural lettering and numbering in varying heights and thickness and dimensioning –To develop one's own style of writing

Teachers Input– Introduction to Architecture lettering, dimension

Assignment 2- (2 Hours)

Assignment–Applications of scales to Enlarge True, or to Reduce the objects in drawing.

Teachers Input– Introduction to application of scales to object drawing

Assignment 3- (12 Hours)

Assignment– Study of scales, their use in practice and construction and problems of Plain scale and diagonal scale

Teachers Input– Introduction to plain and diagonal scales

Expected Output– Exercise on writing alphabets and numerical in various font style in sketchbook

Expected Output –Submission in sketchbook/A2

Expected Output– Submission ON A2 size sheets.

PLANE AND SOLID GEOMETRY

Assignment 1- (2 Hour)

Assignment– Construct planes like square, triangle, Pentagon, Hexagon, circle etc.

Teachers Input - Introduction to construction of planes using drafting instruments.

Assignment 2- (6 Hours)

Assignment –Examples explained and solved on black board

Teachers Input– Orthographic, Isometric and Axonometric projection

Expected Output– Submission in sketchbook/A2

Expected Output– Solved problems on A2 size sheets.

SCALE DRAWING

Assignment 1- (8 Hours)

Assignment –Examples explained and solved on black board

Teachers Input– Scale drawing (plan/elevation/section) of a simple G+1 building indicating the vertical circulation & toilet details in section.

Expected Output– Drafting on A2 sheet

EVALUATION SCHEME

Attendance	Portfolio	Test + Sessional	Total
20	60	20	100

ARCHITECTURAL GRAPHICS - I

Graphics Co-Ordinator:
Prof. Vishwas Dikhole

Graphics Team:

Sec A
Ar. Piyusha Rathor
Ar. Samruddhi Amte

Sec B
Prof. Vishwas Dikhole
Ar. Rashmi Thakre

Sec C
Prof. Atula Patwardhan,
Ar. Madhuri Gehani,

Objectives of Architectural Graphics:

To introduce students to architectural drawing techniques and to the language of graphics, its vocabulary and grammar such as scale, annotations, labeling and dimensioning.

To enable students to express simple three dimensional objects and building components through Technical Drawings, using various graphic projection systems

Keywords :

Architectural lettering and dimensions, scale ,construction of planes, projections

References :

- Ching Francis D.K.: Architectural Graphics
- Gill Robert: Rendering with pen and ink
- H. Joseph and Morris: Practical plane and solid geometry

Unit I: To make students aware about Prehistoric Architecture & its Evolution of architecture, study of primitive people, shelters, settlements.

Unit II: To make students aware about Nile Valley Civilization: The impact of the context, culture and society on art and architecture of the Egyptian Civilization. Evolution of tombs, valley of Kings, necropolis.

Unit III: Indus Valley Civilization: The impact of the context, culture and society on art and architecture during Early Indus settlements in Mehrgarh, Harrapa, Mohenjo Daro, Dholavira.

Unit IV: To make students aware about Euphrates & Tigris river valley Civilization: The impact of the context, culture and society on art and architecture of Assyrian, Sumerian, Mesopotamian and Babylonian period.

Unit V: To make students aware about Yellow River Civilisation: The impact of the context, culture and society on art sculpture and Architecture during Prehistoric, Xia Dynasty, Shang Dynasty and Zhou Dynasty

Unit VI: To make students aware about Vedic Architecture and Settlements: Rise of cities, Mahajanapadas and to give them introduction to scripture.

Introduction – (1 Hour)

architecture of early civilizations as an expression of art and culture of that place.

Unit I: Prehistoric Architecture – (3 Hours)

Evolution of architecture. A study of primitive people, shelters, settlements.

Unit II: Nile Valley Civilization – (4 Hours)

The impact of the context, culture and society on art sculpture and Architecture of the Egyptian Civilization. evolution of tombs, valley of Kings, necropolis.

Unit III: Indus Valley Civilization – (3 Hours)

The impact of the context, culture and society on art sculpture and Architecture during Early Indus settlements in Mehrgarh, Harrapa, Mohenjo Daro, Dholavira.

Test–1 Hour

Unit IV: Euphrates & Tigris river valley Civilization – (3 Hours)

The impact of the context, culture and society on art sculpture and Architecture of Assyrian, Sumerian, Mesopotamian and Babylonian period.

Unit V: Yellow River Civilization – (3 Hours)

The impact of the context, culture and society on art sculpture and Architecture during Prehistoric, Xia Dynasty, Shang Dynasty and Zhou Dynasty.

Unit VI: Vedic Architecture and Settlements–(3 Hours)

Rise of cities, Mahajanapadas, Introduction to scripture.

Revision class & test – 2 Hours

EVALUATION SCHEME

Attendance	Assinments	Sessional	Test	Total
20	40	30	10	100

Team:

Ar. Piyusha Rathor
Ar. Rashmi Thakre

Objectives

- To provide an introduction to the architecture of early civilizations as an expression of art and culture of that place.
- To understand and interpret basic needs and lifestyle as the deciding factors for growths of early settlements.

References :

- History of World Civilizations by J.E. Swain.
- A Short History of the World – H. G. Wells.

CO I: To give students an overview of the Structural System in Architecture and study of types of loads and types of beams, load bearing structure, RCC frame structure, Steel trusses in residential & industrial buildings, with suitable examples from historical and contemporary architecture.

CO II: To give students introduction of Structural Mechanics, forces, composition, resolution, moments and couples also make them aware about Resultant of forces, Concurrent and non-concurrent co-planar force systems, Principle of moments, Varignon's theorem.

CO III: To give students an overview of Principle of equilibrium. (2D Elements) & Basic principles and conditions of equilibrium, study of Lami's theorem and Free Body Diagrams. To make them aware about Study of structural support reactions.

CO IV: To give students introduction of Geometric Properties of plane sections, Centre of gravity, Moment of inertia (second moment of area) – section modulus, radius of gyration, polar moment of inertia.

CO V: To teach students about How to do Analysis of Trusses, Perfect frames (Method of joints)

Unit I:

Overview of the Structural System in Architecture (6 Hours)

TOPIC

- Study of types of beams and types of loads.
- Load bearing structures
- Rcc frame structure
- Steel trusses in residential & industrial bldg.
- With suitable examples from historical and contemporary architecture

Unit II:

Introduction to Structural Mechanics(6 Hours)

TOPIC

- Introduction of forces, composition, resolution, moments and couples
- Resultant forces, concurrent and non-concurrent
- co planar force systems
- Principle of moments
- Virignon ;theorem

Unit III:

Principle Of Equilibrium -2D Elements (9 Hours)

TOPIC

- Basic principles and conditions of equilibrium
- Study of lami's theorem and free body diagrams
- Study of structural support reactions:-study of reactions of simple support, hinged support, roller support and fixed support.

Unit IV:

Geometric Properties of Plane sections(7 Hours)

TOPIC

- Centre of gravity
- Moment of inertia
- Section modulus
- Radius of gyration
- Polar moment of inertia

Unit V:

Analysis of Trusses (9 Hours)

TOPIC

- Perfect Frames

S

STRUCTURAL DESIGN & SYSTEMS - I

Teachers In charge:

Mr. Rupal Wadegaokar

Objectives of Structures

- This course provides students with a basic knowledge of structural systems used in buildings.
- Emphasis will be more on structural concepts stability of forms rather than intricate numerical calculations while dealing with different structural concepts. This will make the student familiar with basic structural mechanics concepts.

References :

- Khurmi, R. S.(2006). A Textbook Of Engineering Mechanics (SI Units). New Delhi: S.Chand And Co Ltd.
- Reddy, K. Vijaya Kumar; Kumar J. Suresh.(2011). Singers Engineering Mechanics Statics And Dynamics (SI Units). Hydrabad:B.S Publications.
- Ramamrutham , S. : Narayanan, R.(2008). Engineering Mechanics. New Delhi: Dhanpat Rai Publications Ltd
- Shah, H.J. ;Junnarkar, S.B.(2012). Mechanics of Structures. Anand:Charotar Publishing House Pvt. Ltd.
- Singer, FerdinandL.(1975). Engineering Mechanics Statics & Dynamics. New Delhi :Harpercollins Publishers.

EVALUATION SCHEME

Assignments	Test + Sessional	Total
30	70	100

Introduction to M.S. Word - (2 hours)

Topics- User interface Use of command line Page setup Page background Paragraph Formatting Use of Commands- find, replace, select Mail merge	Expected Output - Resume
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Introduction to M.S. PowerPoint - (2Hours)

Topics - Formatting pictures and clip arts Inserting and editing a smart art, Gifs images Creating a photo album Applying themes Animation	Expected Output -. Animated video on Principles of Aesthetics (Group Work)
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Introduction to Photoshop - (2 Hours)

Topics - Page setup Layer setup Basic Editing Tools Font	Expected Output -. Poster on a selected social issue
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Introduction to M.S. Excel - (2 Hours)

Topics - Selecting/deselecting cells Entering data in a cell Editing and moving cell content Inserting/deleting cells Rows and columns	Expected Output -. Compilation of Anthropometric Measurements
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Team:

Dr. Sampada Peshwe
Ar. Medha Pophale
Ar. Priyanka Sambare
Ar. Nehal Maheshwari

Objective of Computer Application I :

This subject is to empower students with computer software useful for architects to enhance the skills of presentation ,drafting and coordination of design and other subjects.

To learn presentation software for enhancement of architectural drawings, sketches and convey ideas through presentations.

EVALUATION SCHEME

Attendance	Assignments	Test	Total
10	30	10	50

TIME SLOT	TASK
2 Hours	Introduction to cutting tools and various qualities of model making papers and materials. Drafting, Cutting and pasting negative shapes with various thickness of paper.
2 Hours	Composition of negative spaces on sheet.
2 Hours	Understanding and drafting the geometrical construction of various solids such as cube, cuboids', cylinder, pyramid, prism, etc.
2 Hours	Creating the solids
2 Hours	Creating the solids
2 Hours	Sessional Exam –To create a 'Jali Wall' and study the shadow pattern with its photography and making its presentation on sheets.

EVALUATION SCHEME

Attendance	Sessional	Test	Total
20	60	20	100

Team:

Batch 1:

Dr. Roopal Deshpande
Ar. Samruddhi Amte

Batch 2:

Prof. Atula Patwardhan
Ar. Nehal Maheshwari

Aim

To provide the foundation and capability to represent the concepts three dimensionally.

Objectives

- To introduce the students the various skills and techniques necessary to produce scaled models (Paper and Wooden)
- Expected skills in this subject or area is dexterity, Learning by doing, knowledge of materials (wooden carpentry joints and cutting paper with different thickness) and their properties, crafts skills and visualization skills.
- Teacher's Input - Demonstrations
- Students Output - Models (Paper), sheet.

ELECTIVE – A : SKETCHING & RENDERING

C01 - Extending thinking to challenge our understanding of what we think things look like.

C02 - Introducing sketching as an intelligent activity and hand & deliberation of mind.

C03 - Aim to engage & accommodate spontaneity of hand and deliberation of mind.

C04 - To introduce sketching as an medium of expression & presentation

BASICS OF SKETCHING

Exercise 1st – (3 Hours)

Topic- Introduction to sketching material (Grade pencils, charcoal, paint, paper type and quality etc.)

Assignment-Students are required to make a plate using various grade pencils by giving pressure to know the quality/lightness/darkness of it.

EXERCISE 2nd – (3 Hours)

Topic- Introduction to Texture.

Assignment- Explore various material textures visually with pencil as medium(sketches in sketch book).

RENDERING TECHNIQUES

EXERCISE 3rd – (3 Hours)

Topic - Geometrical object drawing and Rendering Techniques.

Assignment- To draw geometric objects and render with various techniques considering light and shades.

EXERCISE 4th -- (6 Hours)

Topic - Complete the picture .

Assignment-As per given half picture students have to complete it by visualizing the complete picture.

Topic- One point perspective (tree, building etc.)

EXERCISE 5th – (6 Hours)

Assignment-Sketches of small objects in one point perspective.

EXERCISE 6th - - (6 Hours)

Topic- Story Making (including or with the help of one point perspective).

Assignment-Make storyboard by using one point perspective elements as part of the story.

FINAL test-3 hours

SKETCHING AND RENDERING

Team

Prof. Atula Patwardhan
Ar. Nehal Maheshwari

Vision- Sketching is central to Architecture. It is, along with a presentation technique, a tool for thinking. Often it is observed that even a minimal sketch is more expressive than a page full of text. The body of architectural sketches by master architects, from doodles to those rendered with painstaking details remains an inspiration for designers across generations.

List of material required - A3 size padding board, cartridge sheet, checkered handmade sheet, sketchbook-a4 size

Grade pencils -2b,4b,6b,8b,10b, charcoal stick/pencil ,black marker pen, rotaring - point 2,4, waterproof ink, round brush-no.-2,5,7 ½ inch flat brush, palate, water container, cloth, sponge.

Objectives of Sketching & Rendering

-Students to equip with fundamental techniques of sketching and rendering.
-To develop a medium for thinking and explorations.

Keywords :

Visual thinking , representation, Geometric Drawings, Rendering techniques

References :

-Robert Gill, Rendering with pen and Ink,
-Thomas & Hudson Publishers, 1993

EVALUATION SCHEME

Attendance	Assignments	Test	Total
20	60	20	100

- :रतस्वयिकाव (1 to 18 chapters) – 3Hours
- Introduction of Sanskrit & relation of Sanskrit with Architecture, *1st Chapter महूग मम .- 3Hours
- Memory game, * 2nd chapter :ब्राह्मण :मतत्त, * 3rd chapter :मालमथिव, * short class test based on chapters, * reading of Vastushatra shlokas. 3hours
- Samskrit word game, * 4th chapter मोसमार नौनज्ज, * 5th chapter :लार्काषव, * class test based on chapters, * class test , *shlok reading. 3Hours
- 6th chapter त्रायासुथम, 7th chapter णरिततेनश्च, * skit presentation based on chapters, * vastushatra shlokas – 3Hours
- 8th chapter मम दिनचर्या, * 9th chapter विवेकयुक्तः मीनः, * class test, * shlokas. – 3Hours
- 10th chapter :यीतराभं यव, * 11th chapter :यलायद्वि, * class test based on chapters, * shlokas.- 3Hours
- 12th chapter मणिश्रु नतिीग, * 13th chapter मणिीक्र णत्रिस्व, * PPT based on chapters, class competition. – 3Hours
- 14th chapter उपदेशः, * 15th chapter ईबीमक्षल णगंरीव, * class test, * shlokas. – 3Hours
- Syllabus based PPT & videos, * 16th chapter :शाकवामषेय, * 17th chapter :काणोक, * class test – 3Hours
- Revision of all chapters, * word recognition from shlokas.

Teacher In- Charge
Dr. KALYANI KALE

Objectives of Sanskrit -

- Sanskrit is the mother language of all Indian languages.
- Our ancient scientific knowledge is the treasure of proud and we want to introduce our students with this.
- Indian Architecture is the most famous and most scientific. An ancient Architecture preserved in Sanskrit literature. Which is relevant and demanded everywhere.
- We want our precious students learn and feel proud about India and Indian knowledge.
- Learning of Sanskrit language targets on above objectives.

Keywords:

- Sanskrit communication
- Way to Architecture knowledge

References :

- Prathamaa Deekshaa book set
- Dwiteeyaa Deekshaa book set

EVALUATION SCHEME

Attendance	Test	Assignment	Total
20	20	60	100

Unit 1 : Introduction to various art form, Established theories of critical appreciation, Viewing of media – advertisements.

EXERCISE (3 Hours)

Assignment- Advertisement Appreciation

Unit 2 : Introduction to music as an age-old art form (traditional or classical & contemporary). Discussion and analysis of different genres of music.

EXERCISE (3 Hours)

Assignment- Identification of pathbreaking song in particular genre – Group activity

Unit 3 : Introduction to Painting as an age – old art form. Brief intro to 'isms' in painting. Comparison and analysis of different styles of painting.

EXERCISE (3 Hours)

Assignment- Abstract Painting. Students to paint an abstract painting. Analysis to be done on other students' paintings.

Unit 4 : Introduction to Architecture as an ancient art form. How to critically analyse a piece of architecture.

EXERCISE (3 Hours)

Assignment- Choose any 3 contemporary buildings and analyse them. Group Assignment

Unit 5 : self appraisal of the design project.

EXERCISE (3 Hours)

Assignment- Analysis of Given design project.

FINAL SUBMISSION

EVALUATION SCHEME

Attendance	Test	Assignment	Total
20	20	60	100

Appreciation of Art and Architecture

Team

Dr. Madhura Rathod

Ar. Isha Pawar

Vision

Critical appreciation is a confluence. Appreciation is essentially an expression of gratitude, whereas criticism is the art of analysing and judging the quality of the design of any architectural work.

Critical appreciation of beauty of architecture poses many challenges but the greatest challenge lies in the personality of a critic on the one hand and the lack of creativity in the architect on the other. Since critical appreciation is not to be based on preconception, a heavy responsibility lies on the critic's shoulder. The approach of a critic therefore has to be based on being conscious of the emergence of form through design, the personality of the designer and the emotive responses of the architect.

OBJECTIVES

The objective of the subject is to groom the skill of critical appreciation and to acquaint the student with the tools and means associated with it. The contents of the subject are designed with due consideration to make it comprehensive, meaningful and enjoyable. You will be taken through the journey of understanding various established theories of critical appreciation and then helping you to learn how to analyse, synthesize and at times redesign and recreate certain things which otherwise were just up to the mark till date.

KEYWORDS

- Product analysis,
- Poster analysis,
- Critical appreciation various art forms other than architecture, analysing T.V shows, etc.

Teacher In- Charge
 Dr. Nalini Wadjikar

Sr. No.	Tournaments	Sr. No.	Tournaments
1	Cross Country	1	Athletics
2	Swimming	2	Ball Badminton
3	Table-Tennis	3	Cricket, Hockey, Hand Ball
4	Badminton	4	Kabbadi
5	Basket Ball	5	Kho-kho
6	Volley Ball	6	Adventure
7	Chess, Yoga	7	Taikwando, Tagowar (Rassikhech) activity

ELIGIBILITY

- Players who have already participated in school levels.
- Interested students can participate in various games.

SELECTION

- Every Saturday – 12.00 to 1.00 p.m.
- Department of Physical Education & Sports conducts physical efficiency test & medical exam for all the students. It is Compulsory for all.

FACILITIES

- Playfields for practice all the games.
- Badminton Court available for practice
- Basket Ball Cement Court available in LAD, Shankar Nagar, Nagpur.
- Players those are participate in various games – conveyance allow. refreshment, sports equipment are provided by the college.
- Attendance is considered by the teacher during practice and tournaments.

ELIGIBILITY RTM Nagpur University given incentives of 10 marks to players who participate in inter-collegiate tournament.



Women's Education Society's

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