WOMEN'S EDUCATION SOCIETY'S

SMT. MANORAMABAI MUNDLE COLLEGE OF ARCHITECTURE

NAGPUR

SECOND SEMESTER

ACADEMIC BOOKLET

2020-2021


08/03/20


NY

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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

Section Co-Ordinators
Sec A – Ar. Samruddhi Amte
Sec B – Ar. Rashmi Thakre
Sec C – Ar. Harpreet Saggu

FIRST YEAR FACULTY

EVEN SEMESTER 2020-21

FACULTY & SUBJECTS

FIRST YEAR IN-CHARGE : Ar. Piyusha Rathor

CLASS CO-ORDINATORS -
Sec A - Ar. Samruddhi Amte
Sec B - Ar. Rashmi Thakre
Sec C - Ar. Harpreet Saggu

ARCHITECTURAL DESIGN - II & ALLIED DESIGN STUDIO - II
Subject 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,

BUILDING CONSTRUCTION AND MATERIALS – II
Subject Co-ordinator – Ar. Rashmi Thakre

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

ARCHITECTURAL GRAPHICS - II
Ar. Vishwas Dikhole, Prof. Atula Patwardhan, Ar. Piyusha Rathor, Ar. Samruddhi Amte, Ar. Rashmi Thakre, Ar. Harpreet Saggu

HISTORY OF ARCHITECTURE - I
Ar. Piyusha Rathor, Ar. Rashmi Thakre

STRUCTURAL DESIGN & SYSTEMS - II
Er. Rupal Wadegaonkar

COMPUTER APPLICATION II
Dr. Sampada Peshwe, Ar. Medha Pophale, Ar. Nehal Maheshwari

WORKSHOP - II
Prof. Atula Patwardhan,
Ar. Samruddhi Amte,
Ar. Priyanka Sambare,
Ar. Nehal Maheshwari

ELECTIVE II-
Architectural Photography
Prof. Atula Patwardhan ,
Ar. Nehal Maheshwari

ELECTIVE II-
Graphic Designing
Dr. Madhura Rathod,
Ar. Madhuri Gehani

ELECTIVE II-
Instituitional Project II-
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 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 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

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

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

	Over all Janeev Jagrutee Club In Charge	**Prof.Atula Patwardhan** **Ar.Madhuri Gehani**
	Students council In-charge	Ridhi Kothari KadambariDakshindas
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 ,Prerna Kothari Muskaan Modi ,Aliza Qureshi

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.

FIRSTYEAR B.ARCH.

Semester – 2

Sr. No.	Sub. Code	Sub. Name	Category	Board	Load Per Week					Credits					Paper / Sessional	Duration in Hours	Max. Marks	Total Marks	Min. Pass Marks
					L/D	T	S	P	Total	L	T	S	P	Total					
1	2S-A-1	Architectural Design II			1	0	3	0	4	1	0	4.5	0	5.5	Sessional		150	200	100
															Viva Voce		50		
2	2S-A-2	Allied Design Studio-II			1	0	2	0	3	1	0	3	0	4	Sessional		100	100	50
3	2S-A-3	Building Construction and Materials -II			2	0	3	0	5	2	0	4.5	0	6.5	Paper	3	100	150	40
															Sessional		50		25
4	2S-A-4	Architectural Graphics II			2	0	0	2	4	2	0	0	1	3	Paper	3	60	100	50
															Sessional		40		
5	2S-A-5	Sturctural Design & Systems-II			2	1	0	0	3	2	0.5	0	0	2.5	Paper	3	60	100	50
															Sessional		40		
6	2S-A-6	History of Architecture I			2	1	0	0	3	2	0.5	0	0	2.5	Sessional		100	100	50
7	2S-A-7	Computer Application II			1	0	0	1	2	1	0	0	0.5	1.5	Sessional		50	50	25
8	2S-A-8	Workshop II			0	0	0	3	3	0	0	0	1.5	1.5	Sessional		100	100	50
9	2S-A-9	Elective II			1	2	0	0	3	1	1	0	0	2	Sessional		100	100	50
Total									30					29.0			1000	1000	

Elective II
Art in Architecture / Graphic Designing / Fundamentals of Painting / Fundamentals of Sculpture / Architectural Photography / Institutional Project 2

ALLIED DESIGN STUDIO - II

Unit I - Brief historical review of development of Design and its interdependency.

Objectives –

- To make students aware about the evolution of forms and style in architecture through explaining the evolution of Isms in Art and Architecture.
- To make students aware of the inter-dependency of art & architecture and to make them understand how to read the elevations of different forms & analyze its elements, colour schemes and patterns.

Teachers Input– Power point Presentation.

Unit II - Introduction to basic elements of design. Study of shapes and its composition, study of volumes, effects of colour and texture on composition.

Objectives –

- Understanding the basic elements of design which contrinute towards space making.
- Identification of the parameters which contribute to the spatial experience of an architectonic volume or space.

Teachers Input– Power point Presentation.

Unit III- Analysis of simple objects of daily use, in terms of material, interface, graphics, colour, texture, functionality etc.

Objectives –

- To introduce students to analytical, inquisitive and methodical process of thinking when they view & analyze objects of daily use.
- To make students aware and also encourage them to explore the various aspects that a designer considers while designing any object of use.

Teachers Input– Power point Presentation.

EVALUATION SCHEME

Unit	Description of COs	Weightage
Unit 1	Brief historical review of development of Design and its interdependency.	Assignment 1 = 10
Unit 2	Introduction to basic elements of design. Study of shapes and its composition, study of volumes, effects of colour and texture on composition.	Assignment 2 + Assignment 3 = 35
Unit 3	Analysis of simple objects of daily use, in terms of material, interface, graphics, colour, texture, functionality etc.	Assignment 4 = 15

Attendance	CO1	CO2		CO3	Sessional	Total marks
	A1	A2	A3	A4		
20	10	10	25	15	20	100

ALLIED DESIGN STUDIO - II

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 Saggu,

Objective of Allied Design Studio -II

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

Theory of Basic Design

To understand the visual & aesthetic qualities of design and relating these to Architectural Design situations.

ARCHITECTURAL DESIGN - II

Module - 1

Objectives

- Understanding the basics of design essential for formulation of design concept - Principles of spatial organization, Symbiosis of form and function, Concept generation, Convergent & divergent thinking in design,
- Conceptualization of Weekend Home in terms of form & volume

Module 1: Creative Exercise

Module - 2, 3, 4

Objectives

- Evolution of the concept of Weekend Home through process of Activity programming, Circulation, Facilitation, Site analysis and Climatic considerations.

Module 2: Activity Chart & Circulation programming
Module 3: Basic Site analysis & climatic data
Module 4: Facilitation of various spaces

Module - 5

Objectives

- Consolidation of design concept into design solution by application of principles of aesthetics with appropriate functionality and aesthetic appeal.
- Design development of Weekend Home in terms of 2D and 3D development into a schematic design solution.

Module 5: Schematic Design of Weekend Home (Schematic Plan & Block model)

Module - 6

Objectives

- Detailing of the design of Weekend Home in terms of designing of appropriate architectural elements, employment of basic building materials, and the appropriate graphical presentation of the design solution through architectural drawings.

Module 6: Pre-final submission (Detailed design solution with Detailed Plan, Elevations, Sections, Views, Detailed Model)

Module - 7

Objectives

- Understanding the employment of vocabulary of architectural terminologies and acquiring verbal presentation skills through presentation of entire design scheme.

Module 7: Final Submission with Internal Viva

EVALUATION SCHEME

Attendance	Modules					Total marks
	Review 1 (Module 1)	Review 2 (Module 2, 3 & 4)	Review 3 (Module 5)	Review 4 (Module 6)	Internal Viva (Final submission)	
30	5	5+5+5 = 15	15	55	30	150

ARCHITECTURAL DESIGN- II

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 Saggu,

Objective of Architectural Design II

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

References :

- Ching Francis D. K., Form Space and Order.
- Peter Streens, Patterns in Nature.
- John R. Mather -Climatology: Fundamentals and Application.

Timber & Types of timber joinery - (4 Hours)

Topic – TIMBER - Seasoning, its necessity and various methods, (Market survey to learn various types available, their sizing and costing and application in construction of building elements and furniture).

Teachers Input– Demonstration and Discussion.

Expected Output– Sketches in A3 Sketchbook & Market survey report.

Topic – Types of timber joinery - principles and design considerations, their application in construction of various elements, items of building construction and in design of furniture.

Teachers Input– Demonstration and Discussion.

Expected Output– Sketches in A3 Sketchbook, Sheet.

Wooden Doors & Wooden Windows– (8 Hours)

Topic - Wooden Doors - Design criteria and principles. types and Standard Terminologies. Design and detailed drawing work for Single leaf fully panelled doors, Single leaf partly panelled partly glazed doors, Double leaf fully panelled doors; with important joinery details.

Teachers Input – Demonstration and Discussion.

Expected Output– Sketches in A3 Sketchbook, Sheet.

Topic - Wooden Windows - Design criteria and principles. Types and Standard Terminologies. Design and detailed drawing work for Fully Glazed windows with mullion(s) and with Transom. Sash Windows, Centrally pivoted window, Top Hung Window, Louvered Window, with adequate number of important joinery details Study of various fixtures, fittings, fastenings for doors and windows.

Teachers Input – Demonstration and Discussion.

Expected Output– Sketches in A3 Sketchbook, Sheet.

Concept of Span , Lintels & Arches - (4 Hours)

Topic - Concept of Span and its application in providing / making openings in Masonry walls. Lintels its definition, purpose, basic Terminology, load considerations. Lintel Types such as stones, bricks, wood, steel, R.C.C., Rein. Brick with their design criteria and considerations.

Teachers Input– Demonstration and Discussion.

Expected Output– Sheets & Sketches in A3 Sketchbook.

Topic - Arches: Definition, purpose / function. Standard Terminologies. Load considerations. Comprehensive study of classification and types of arches. Centering for arches.

Teachers Input– Demonstration and Discussion.

Expected Output – Sketches & notes in A3 Sketchbook.

Foundations – (6 Hours)

Topic –Introduction Foundation, Basic design considerations. Simple foundations for load bearing walls in stone and brick masonry. Timbering to trenches for various types of soil.

Teachers Input– Discussion and board sketching.

Expected Output – Sketches in A3 Sketchbook.

BUILDING CONSTRUCTION AND MATERIALS - II

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

Objectives

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

References

- Building Construction" by Mackay W. B., Vol. 1 – 4
- Building Construction" by Barry, Vol. 1 – 5
- Construction Technology" by Chudley, Vol. 1 – 6
- Building construction Illustrated" by Ching Francis D. K.
- Elementary Building Construction" by Michell

EVALUATION SCHEME

Units	Description of COs	Weightage	Output (Test/Essay/ Sheets/ppt/model/ Review/anyother)
Unit 1	▪ To study Timber as a building material and its Seasoning. ▪ To understand various types timber available, their sizing, costing and application in construction of building elements.	5	Market Survey Report
Unit 2	▪ To study Design criteria and principles of wooden Doors & windows. ▪ To learn various Types and Standard Terminologies involved in wooden doors & windows. Study of various fixtures, fittings, fastenings.	5	MCQ
Unit 3	▪ To study Concept of Span and its application in providing openings in Masonry walls and Types of Lintels & Arches, its purpose, basic Terminology and load considerations.	5	MCQ
Unit 4	▪ To study Basic design considerations of foundation for load bearing walls in stone and brick masonry, ▪ To learn timbering to trenches for various types of soil.	5	MCQ

Attendance	Plates & Sketchbook	Test	Sessional	TOTAL
10	20	20	20	50

BUILDING CONSTRUCTION AND MATERIALS - II

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

Objectives

- To understand the basic building elements, their function and behaviour under various conditions with specific reference to timber construction.
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- Construction Technology" by Chudley, Vol. 1 – 6
- Building construction Illustrated" by Ching Francis D. K.
- Elementary Building Construction" by Michell

ARCHITECTURAL GRAPHICS - II

UNIT I -SOLID GEOMETRY

Assignment 1–Drafting composite and complex 3d objects (interpenetration)

Expected Output– Solved problems On A2 Size sheet.

Teachers Input– Examples explained and solved on black board or demo on AutoCAD.

Assignment 2–Orthographic projections of true shapes of sectional plane

Expected Output - Solved problems on A2 Size sheet.

Teachers Input– Examples explained and solved on black board or demo on AutoCAD.

Assignment 3- Linking of complex 3d forms to building forms

Expected Output - Sketches

Teachers Input– Presentation

UNIT II –SURFACE DEVELOPMENT OF SOLIDS

Assignment 4- Surface development of various simple 3d objects.

Expected Output– A2 size sheets

Teachers Input - Examples explained and solved on black board or demo on AutoCAD.

Assignment 5- Surface development of various Complex 3d objects .

Expected Output– A2 size sheets

Teachers Input - Examples explained and solved on black board or demo on AutoCAD.

UNIT III – MEASURED DRAWING

Assignment 6 – Plan, Elevation , Sections drawn to appropriate scale of a simple two storied buildings including a stair way and toilet and basic area calculation of same .

Expected Output– Measured drawing with all technicalities and area calculation table .

Teachers Input– Example of a two storied building explained and drafted on black board or demo on AutoCAD and demonstrate the method for area calculation.

EVALUATION SCHEME

Unit	Description of COs	Weightage
Unit 1	1)Understanding the curve and pattern of intersection when one solid penetrates another solid 2)Understanding the concept of true shape 3)Study interpenetration patterns in built forms by studying case examples (work of various architects)	13
Unit 2	1) To enable thinking about unfolding patterns of a solid.	6
Unit 3	1)To enable the students to understand the technique of graphical documentation of a built structure / environment through measured drawings.	6

Attendance	Portfolio	Test	Total
05	25	10	40

ARCHITECTURAL GRAPHICS - II

Graphics Co-Ordinator
Ar. 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. Harpreet Saggu

Objectives :

- To enable the students to understand and express Composite three-Dimensional
- objects and buildings formed by additive and interpenetrated solids using various
- graphical projection systems including sections.
- To enable the students to understand the technique of graphical documentation of a
- built structure / environment through measured drawing/s.

Keywords :

Interpenetration of solids, Surface Development, Measure Drawing

References :

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

HISTORY OF ARCHITECTURE - I

Introduction – (1 Hour)

Introduction to history of architecture as an expression of art and culture of that place.

Unit I: – Early Greek Architecture (4 Hours)

To study early Greek Architecture in which the impact of the context, culture and society on art and architecture during Hellenic and Hellenistic period i.e. Greek Temples, Orders and public places.

Unit II: – Roman Architecture style (4 Hours)

To study Roman Architectural style in which the impact of the context, culture and society on art, architecture and construction techniques developed during Roman period i.e Forum, Temples, Basilicas, Comitiums, Curia, Arches, Thermae, Stadia, Circus.

Unit III: – Byzantine and Early Christian Architecture (4 Hours)

Understanding Byzantine & Early Christian Architecture in which the impact of the context, culture and society on art , architecture and construction techniques developed during this period.

Unit IV: – Gothic, Romanesque and Renaissance (6 Hours)

To study Gothic, Romanesque and Renaissance in which the impact of the context, culture and society on art and architecture during these periods through comparative study.

Unit V: – Industrial Revolution (4 Hours)

To study Industrial Revolution in which social, economic and political changes effected, new requirements of the society, new materials and technological developments.

EVALUATION SCHEME

Unit	Weightage
Unit I	10 (Test)
Unit II	10 (Sketchbook)
Unit III	10 (Sketchbook)
Unit IV	10 (Assignment)
Unit V	10 (Sketchbook)
TOTAL	50

Attendance	Assignments / Sketchbook	Sessional	Test	Total
20	40	30	10	100

HISTORY OF ARCHITECTURE - I

Team

Ar. Piyusha Rathor
Ar. Rashmi Thakre

Objectives

- To develop the appropriate skills of interpreting the increasing complex structure in a society based on the socio-political, cultural factors and the resultant settlement pattern and architecture.
- To analyse and synthesize architecture of an era based on climate and available building materials construction techniques, climate etc. and spatial configurations derived from it.

References

• History of Architecture by Sir Bannister Fletcher.
• History of Architecture by Spiro Kostof.

STRUCTURAL DESIGN & SYSTEMS - II

Unit I
Structural System in Architecture: Study of Types of Slabs (One way& Two way, Grid Slab), suspension structure with suitable examples from historical and contemporary architecture.

Unit II
Mechanical properties of building materials :
Simple stresses and strains : Concept and application – Definition and study of stresses & strains, Hooke"s law. Principle of superimposition.

Unit III
Thermal stresses and strains : concept and application.

Unit IV
Elastic Constants:
Definitions , Poisson"s ratio, Bulk Modulus, Modulus of elasticity, Modulus of rigidity.

Unit V
BM and SF Diagrams:
Simply supported & Cantilever beams (Subjected to Point load & UDL)

EVALUATION SCHEME

Units	Description of COs	Weightage
Unit I	To study the Structural System in Architecture with Types of Slabs (One way& Two way, Grid Slab), suspension structures along with suitable examples from historical and contemporary architecture.	5
Unit II	To study Mechanical properties of building materials by understanding the concepts and applications of Stresses & strain, Hooke's Law and Principle of superimposition.	5
Unit III	To study the concepts and applications of Thermal stresses and Strains.	10
Unit IV	To study the Elastic Constants (Poisson"s ratio, Bulk Modulus, Modulus of elasticity, Modulus of rigidity)	10
Unit V	To study BM and SF Diagrams through Simply supported & Cantilever beams (Subjected to Point load & UDL)	10
TOTAL		40

STRUCTURAL DESIGN & SYSTEMS - II

Teachers In charge:
Mr. Rupal Wadegaokar
Ar. Nehal Maheshwari

Objectives of Structures

- To make students familiar with the basic theorems and mechanical properties of engineering materials, elastic constants, different types of stresses and strains.
- It also delivers the basic principles of structural mechanics & how Bending moments and Shear force diagrams are used to analyze simple structural behavior.

References :

- Ramamrutham, S. : Narayanan, R.(2008). Strength Of Material . New Delhi: Dhanpat Rai Publications Ltd.
- Rajput, R.K.(2012). Strength Of Material (Mechanics And Solids) S.I. Units. New Delhi: S. Chand And Co Ltd.
- Khurmi, R. S.(2006). A Textbook of Strength of Material (SI Units). New Delhi:S.Chand And Co Ltd
- Bansal, R. K.(2011). A Textbook of Strength of Materials (SI Units). New Delhi:Laxmi Publications (P) .
- Shah, H.J. ;Junnarkar, S.B.(2016). Mechanics of Structures Vol. I (Strength of Materials).:Charotar Publishing House Pvt. Ltd.

Introduction to Video Portfolio - (4 hours)

Topics- Documentation of First Sem Portfolio (Design, Sketching, Workshop, Appreciation and Criticism, History) with the use of Android friendly Apps like Filmora, Canva, Prisma etc.

Teachers Input - PPT Presentation and Discussion on Technical aspects.

Expected Output - 1 to 2 minutes Video Portfolio

Introduction to Google Form – (2 Hours)

Topics- To do survey and collect data in Google form which will be analyzed in responses.

Teachers Input - How to do survey ?
How to create google form and explanation of all its features.

Expected Output - Generation of Google Form survey (Google Form Link)

Power Point and You Tube – (2 Hours)

Topics- How to analyze and submit the digital data in the form of Assignment

Teachers Input - How to manage screenshot in PPT and convert it into a Pdf ?
How to upload video on YouTube?

Expected Output - Pdf of survey analysis and responses
YouTube link of Video Portfolio

Introduction to Google SketchUp – (2 Hours)

Topics- Basics of sketch up or equivalent software to strengthen the visualization of third dimension and vice versa. Advanced commands of sketch up for massing, 3d models of buildings, topography, shadow formation study etc.

Teachers Input - PPT Presentation and Software Explanation

Expected Output - Understanding the Key features of Software Google SketchUp.

EVALUATION SCHEME

Topics	Description of COs	Weightage	Output
1	To make a video Portfolio of their own work	15	MP3 Video
2	To understand and create survey and data collection	15	Google Form Link
3	To understand and compile Response Analysis done by Google Form Survey	5	Response Analysis Pdf
4	To understand the process of uploading on Virtual Media Platform	5	YouTube Link

Attendance	Assignments	Test	Total
10	30	10	50

COMPUTER APPLICATION - II

Team :

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

Objectives:

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

EVEN SEMESTER 2020-21

Design and execute Prototype of simple usable product

Assignment 1– Best Out of waste Usable product 1:1 scale

Teachers Input– Lecture narrating the term potential of available material and scrap.

Expected Output– 1:1 usable product with documentation though process and photographs for same.

Submission Date– 21st May 2021

Trees in scaled model

Assignment 2– Students are supposed to study nature of foliage of trees and craft out 5 trees of different nature and different material.

Teachers Input – Presentation

Expected Output– models and documentation on ppt in pdf format.

Submission Date– 26th May 2021

Finishing of Surfaces

Assignment 3– Students will create a tutorial with information regarding plastering, pointing ,polishing ,painting etc

Teachers Input– Discussion and presentation.

Expected Output– Group submission tutorial in ppt format .

Submission Date– 27th May 2021

Interlocking Technique

Assignment 4 - Making of the model with cardboard with interlocking technique.

Teachers Input– Presentation and Discussions.

Expected Output– models and photographs pasted on sheets.

Submission Date– 27th May 2021

EVALUATION SCHEME

Topics	Description of COs	Weightage
1	To understand potential of various material available (especially in pandemic when the stationary shops are closed) in scrap Best Out of waste Usable product 1:1 scale	20
2	To understand various techniques , materials and tools used to make various types of trees needed for architectural model	20
3	To understand various techniques , materials and tools used to make various finishes on surfaces (plastering, pointing, painting and polishing)	20
4	To understand the technique of Interlocking to make study models of furniture or built forms	20 (test)

Attendance	Assignments	Sessional /test	Total
20	60	20	100

WORKSHOP Practices - II

Team:
BATCH 1
Ar. Samruddhi Amte
Ar. Priyanka Sambare

Batch 2
Prof. Atula Patwardhan
Ar. Nehal Maheshwari

Aim

Developing understanding of various material and efficiency in technique.

Objectives

- To introduce the students the various skills and techniques necessary to produce scaled models
- To figure out potential in available scrap material at home especially during the pandemic and craft out 1: 1 usable products and document the thought process through photographs
- Expected skills in this subject or area is dexterity, Learning by doing knowledge of materials and tools

ARCHITECTURAL PHOTOGRAPHY

Introduction to Photography – (2 hours)

Topics- Introduction to Photography and Indoor Photography balancing the Light and Colors

Teachers Input - PowerPoint Presentation

Expected Output - Still Life photography

Introduction to Photography Techniques – (2Hours)

Topics- Introduction to Photography Techniques with 3 Visual angles (Eye Level, Below eye level, Above eye Level)

Teachers Input - PowerPoint Presentation and Lecture

Expected Output - Photographs of different angles of any room of your house

Introduction to Post Processing Photos – (2 Hours)

Topics- Introduction to Post Processing Photo by photo editing process of applying filters, Saturations, etc.

Teachers Input - Lecture with Examples

Expected Output - Photo Edited Family Photo Shoot Outdoor with built form background and natural folliage

Introduction to Mechanics of Imaging– (2 Hours)

Topics- Introduction to the mechanics of imaging and understanding the photo frames

Teachers Input - Lecture with Examples

Expected Output - Photos of Architectural Elements

EVALUATION SCHEME

Topics	Description of COs	Weightage	Output
1	To understand Photography Terminologies and Indoor Photography balancing the Light and Colors	15	Still Life photography
2	To understand Photography Techniques with 3 Visual angles ((Eye Level, Below eye level, Above eye Level)	15	Indoor Photographs
3	To understand Post Processing Photo by photo editing process	15	Outdoor Photographs
4	To understand the mechanics of imaging and understanding the photo frames	15	Photographs of Architectural Elements

Attendance	Assignments	Test	Total
20	60	20	100

ELECTIVE – II

ARCHITECTURAL PHOTOGRAPHY

Team :

Prof. Atula Patwardhan
Ar. Nehal Maheshwari

Objectives :

Develop the skills of visual Composition, People & nature, Lighting & color and Understand the mechanics of imaging.

References :

- Fundamentals of Photography: The Essential Handbook for Both Digital and Film Cameras.
- Architectural Photography: Composition, Capture, and Digital Image Processing, Adrian Schulz.
- Balthazar Korab: Architect of Photography, John Comazz.
- Architectural Photography the Digital Way, Gerry Kopelow.

SANSKRIT

Day 1 (17.5.2021)
- Chapter 18 राणाप्रतापः

Day 2 (18.5.2021)
- Declension of Noun and Pronoun
- Chapter 19 महिशूरं प्रति प्रवासः

Day 3 (19.5.2021)
- Tenses and Verbs (परस्मैपद)
- त्वान्त, ल्यबन्त, तुमन्त

Day 4 (20.5.2021)
- Tenses and Verbs (आत्मनेपद)
- Chapter 20 गुरुकुलम्

Day 5 (21.5.2021)
- Chapter 21 जन्तुशाला

Day 6 (24.5.2021)
- Chapter 22 काशी

Day 7 (25.5.2021)
- Chapter 23 आश्रमः

Day 8 (26.5.2021)
- Chapter 24 संस्कृतभाषा

Day 9 (27.5.2021)
- Chapter 25 रथयात्रा

Day 10 (28.5.2021)
- Civil Engineering and Architecture

EVALUATION SCHEME

Attendance	Test	Assignment	Total
20	20	60	100

ELECTIVE – II

INSTITUITIONAL PROJECT - SANSKRIT

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.

References :

-Vakyavistar, Sanskrit for Technical Knowledge

GRAPHIC DESIGNING

INTRODUCTION (17TH & 18TH MAY 2021)

Topics-
Introduction to the Graphic designing as a term with background history. Basics, significance, and role of graphic design in architecture,
Types of graphic designing, Elements of graphic designing, Graphic designing principles, Common graphic design tools, Popular graphic design tools,Future in graphic design, Graphic design applications.

Expected Input- Presentation, sketches, and discussion

Expected Output –
To analyze photographs with graphic design elements and principles

VISUAL PERCEPTION (19TH MAY 2021)

Topics-
Understanding the role of eye in perceiving the object, image, space and/or structure

Expected Input- Presentation, sketches, and discussion

Expected Output –
Exercise on visually perceiving generated positive and negative spaces.

BOOK REVIEW (20TH MAY 2021)

Topics-
Understanding the role of reading books and presenting it in a graphical format.

Expected Input- Presentation, and discussion.

PRINCIPLES OF COMPOSITION (21st May 2021)

Topics-
To understand the role of the principles and elements in generating visually appealing design output.
To understand the role of layout and composition , format making , typography and color theory.

Expected Input-
Videos/presentation/discussion

Expected Output –
Format/layout/book cover design

LATERAL THINKING (24TH MAY 2021)

Topics-
To bring the confluence between mind and body for better thinking output.
To emphasize on thinking exploration from lower order thinking skills (LOTS) to higher order thinking skills.(HOTS)

Expected Input- Presentation.

Expected Output –
Hands on activity on sketch book

ENVIRONMENTAL GRAPHICS(25TH MAY 2021)

Topics-
To emphasize the allied graphics issues like logo design, signage's etc.
To explore the role of build environment in architecture through graphic design skills.

Expected Input- Presentation.

Expected Output – Logo Design

EVALUATION SCHEME

Topics	DESCIPTION OF COS	WEIGH TAGE
1	TO understand graphic designing its elements and principles	15
2	Understanding the role of eye in perceiving the object, image, space and/or structure	15
3	To emphasize the allied graphics issues like logo design, signage's etc. To explore the role of build environment in architecture through graphic design skills	15
4	To understand the role of layout and composition , format making , typography and color theory.	15

Attendance	Assignments	Test	Total
20	60	20	100

ELECTIVE – II

GRAPHIC DESIGNING

Team
Dr. Madhura Rathod
Ar. Madhuri Gehani

Objectives

- Graphics design is an art, profession, and academic discipline whose activity consists in projecting visual communications intended to transmit specific messages to social groups, with specific objectives (Wikipedia).
- The recommended objective of the course is to enhance the graphics design abilities among students of architecture.

DEPARTMENT OF PHYSICAL EDUCATION & SPORTS

Teacher In- Charge
Dr. Nalini Wadjikar

Sr. No.	Tournaments	Sr. No.	Tournaments
1	Cross Country	8	Athletics
2	Swimming	9	Ball Badminton
3	Table-Tennis	10	Cricket, Hockey, Hand Ball
4	Badminton	11	Kabbadi
5	Basket Ball	12	Kho-kho
6	Volley Ball	13	Adventure
7	Chess, Yoga	14	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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