Regulations and Curriculum for Bachelor of Architecture (B. Arch.)

Version :2025-01

NITTE
(Deemed to be University)

Established under Section 3 of UGC Act, 1956)
Placed under Category ‘A’ by MHRD, GoI | Accredited with ‘A+’ Grade by NAAC

Regulations and Curriculum for
Bachelor of Architecture (B.Arch.)

Choice Based Credit System (CBCS)
for Batch admitted from 2025-26

(Deemed to be University under Section 3 of UGC Act, 1956)
(Placed under Category 'A' by MHRD, Govt. of India, Accredited with 'A+' Grade by NAAC)
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VISION

To build a humane society through excellence in education and healthcare.

MISSION

To develop
Nitte (Deemed to be University)
As a center of excellence imparting quality education,
generating competent, skilled manpower to face the scientific
and social challenges with a high degree of credibility,
integrity, ethical standards & social concern

Key Information

Program Title	Bachelor of Architecture is abbreviated as B.Arch.
Short description	Five Year, ten semesters Choice Based Credit System type of undergraduate degree with English as medium of instruction.
Program Code	**15ARCH01D -NIA** **15ARCH01D3 -NSAPD**
Revision version	**2025-01** These regulations may be modified from time to time as mandated by the policies of the University. Revisions are to be recommended by the Board of Studies for Architecture approved by the Academic Council.
Effective from	**01-08-2025**
Approvals	• Approved in the 61st meeting of Academic Council of NITTE (Deemed to be University), held on 13-06-2025 and vide notification of NITTE (DU), Ref: N(DU)/REG/AC/2024-25/1398 dated 02-07-2025
Program offered at	Nitte School of Architecture, Deralakatte, Mangalore and Nitte School of Architecture Planning and Design, Bangalore
Grievance and dispute resolution	All disputes arising from this set of regulations shall be addressed to the Executive council. The decision of the Executive Council is final and binding on all parties concerned. Further, any legal disputes arising out of this set of regulations shall be limited to jurisdiction of Courts of Mangalore only

Contents


NITTE
(Deemed to be University)
NITTE INSTITUTE
OF ARCHITECTURE

And


NITTE
(Deemed to be University)
NITTE SCHOOL OF
ARCHITECTURE, PLANNING & DESIGN

Regulations and Curriculum for Bachelor of Architecture (B.Arch.) Choice Based Credit System

PREAMBLE

The Bachelor of Architecture (B.Arch.) program at Nitte (Deemed to be University), approved by the Council of Architecture (COA) was introduced in 2015 with a vision to establish a centre for excellence in tropical architecture, one that fosters creative exploration and supports students in their journey toward sustainable and context-sensitive design practice.

Aligned with the university's broader mission of building a humane society through excellence in education and healthcare, the B.Arch. curriculum has undergone significant revisions in 2020 and now in 2025. These changes reflect a sustained commitment to pedagogic innovation, evolving disciplinary needs, and regulatory compliance, while embracing contemporary educational frameworks.

The 2025 curriculum draws on international and national standards, including the UNESCO–UIA Charter for Architectural Education, the Royal Institute of British Architects (RIBA) validation criteria, the National Architectural Accrediting Board (NAAB) conditions for accreditation, and the National Board of Accreditation (NBA) guidelines. It remains in alignment with the Council of Architecture's Minimum Standards of Architectural Education Regulations, 2020, and responds proactively to the National Education Policy (NEP) 2020, advocating interdisciplinary learning, design innovation, and societal relevance.

Developed in collaboration with academic and professional experts, the curriculum fosters a transformative educational environment grounded in ethical practice, sustainability, and critical inquiry. It encourages students to engage with global and local perspectives, develop innovative design responses, and adopt a lifelong learning mindset. Through collaborative practice and contextual engagement, the program prepares graduates to shape the built environment in ways that enhance the quality of life for diverse communities.

The regulations for this course are formulated as under.

1. Introduction

1.1 These regulations shall be called Nitte (Deemed to be University) Regulations for Bachelor of Architecture (B.Arch.) program and govern the policies and procedures including selection, admission, imparting of instructions, conduct of examinations, evaluation and certification of candidate's performance and all amendments thereto, leading to the award of Bachelor of Architecture (B.Arch.) degree. The regulations shall come into effect from the academic year 2025-26 and are applicable to the batch admitted from 2025-26 and onwards.

1.2 This set of regulations is in conformance to the stipulation, norms and regulations laid down by the Competent Regulatory Authorities and shall be binding on all the candidates undergoing the said degree program.

1.3 These regulations may be modified from time to time as mandated by the statutes of the University and the Competent Regulatory Authorities.

1.4 This set of regulations may evolve and get refined or updated or amended or modified or changed through appropriate approvals from the Academic Council or the Board of Management from time to time and shall be binding on all parties concerned including the Candidates, Faculty Members, Staff, Departments, and Institute Authorities.

1.5 All disputes arising from this set of regulations shall be addressed to the Board of Management. The decision of the Board of Management is final and binding on all parties concerned. Further, any legal disputes arising out of this set of regulations shall be limited to jurisdiction of Courts of Mangalore only.

2. Definitions

Unless the context otherwise requires,

i. Academic Bank of Credits (ABC) means the digital credit-based system under the NEP 2020 to facilitate flexibility, mobility, and lifelong learning across higher education institutions in India.

ii. Academic Council means Academic Council of Nitte (Deemed to be University).

iii. Academic year means a 12-month period starting with the commencement of an odd semester.

iv. Aptitude Test means Aptitude Test in Architecture prescribed by the Competent Regulatory Authorities.

v. Audit Course means course/s aimed at supplementing a candidate's knowledge and/ or skills.

vi. B.Arch. means Bachelor of Architecture.

vii. BoS means Board of Studies.

viii. COA means Council of Architecture.

ix. Competent Regulatory Authorities mean the Council of Architecture (or) the competent authority of the Central Government or the respective State Government. The decision of the University/Institute shall be final in determining the competent authority regarding any specific regulatory matter.

x. A Course may consist of studio, lectures, workshop, laboratory work, field work, research, self-directed study, seminars, colloquium, online learning and internship or a combination of some of these.

xi. CIE means Continuous Internal Evaluation.

xii. Credit means a unit by which the course work is measured. It determines the number of hours of instruction required per week. One lecture period or hour shall have one credit; one design studio, construction studio, or capstone project periods or hours shall have one credit; one lab, workshop, studio exercise, or colloquium periods or hours shall have one credit.

xiii. The Choice Based Credit System (CBCS) is a student-centric educational framework that allows learners to select and study core, elective, or skill-based courses at their own pace, earning credits for each completed course instead of conventional marks.

xiv. Credit Based Semester System (CBSS) is an academic framework in which the requirements for awarding a degree, diploma, or certificate are defined in terms of credits that must be earned by students across multiple semesters, with credits assigned based on the workload and hours of instruction for each course.

xv. Credit Point is the product of grade point and number of credits for a course.

xvi. Cumulative Grade Point Average (CGPA): means a measure of the overall cumulative performance of a candidate across all semesters. The CGPA is the ratio of total credit points secured by a candidate in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

xvii. Department means Department or a Centre within the Institute.

xviii. Equivalence Committee means a committee constituted by the respective institute/University in accordance with the University Regulations and in compliance with the norms prescribed by the competent regulatory authority.

xix. Executive Council means the primary administrative and executive body responsible for overall management and strategic direction of the institution, subject to the University's Act and statutes.

xx. External Evaluation (EE) is a form of Semester End Examination (SEE) to evaluate course work presented through portfolio, viva-voce, jury.

xxi. Grade Point means a numerical weight allotted to each letter grade on a 10-point scale.

xxii. Head of the Institute means the Dean/ Principal/ Director of the respective Institute.

xxiii. Head of the Department (or) Head of the Centre means a full-time faculty appointed/ nominated by the Head of the Institute/ University for managing the Department and authorized to and responsible for the implementation of the rules and procedures pertaining to the Department.

xxiv. Letter Grade is an index of the performance of a candidate in a said course. Grades are denoted by letters O, S, A+, A, B+, B, C, F and I.

xxv. Massive Open Online Courses (MOOC) means online courses available for anyone to enroll with an object of providing an affordable and flexible way to acquire knowledge.

xxvi. NAAB means National Architectural Accrediting Board, USA.

xxvii. NBA means National Board of Accreditation.

xxviii. Program means an educational program leading to award of a Degree (B.Arch.).

xxix. Regulations means this set of academic regulations.

xxx. RIBA means Royal Institute of Architects.

xxxi. SEE means Semester End Examinations.

xxxii. Semester means an academic period of 15-18 working weeks.

xxxiii. Semester Grade Point Average (SGPA) means a measure of performance of work done in a semester. It is the ratio of total credit points secured by a candidate in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.

xxxiv. Summer Term is an optional or remedial academic engagement conducted during the summer break.

xxxv. UNESCO-UIA means International Union of Architects.

xxxvi. UGC means University Grants Commission.

xxxvii. University means Nitte (Deemed to be University).

3. Duration of the Program

3.1 The duration of the B. Arch. program shall be 5 academic years including internship.

3.2 The program is framed as a two-stage process – Stage 1 consisting of Common Foundation Level (semester 1 & 2) and Level 2 (semester 3 to 6) and Stage 2 consisting of Level 3 (semesters 7 to 10).

4. Accelerated Degree Programme (ADP) and Extended Degree Programme (EDP):

The Bachelor of Architecture (B.Arch) programme enables learners with varying abilities to move through the curriculum at a pace faster or slower than the standard duration of the programme by earning the required credits through an Accelerated Degree Programme (ADP) or Extended Degree Programme (EDP) in accordance with university regulations, UGC regulations, and the norms prescribed by the competent regulatory authorities.

4.1 The respective institutions may earmark an approved percentage of the sanctioned intake for ADP.

4.2 Students must apply to the respective institutions for ADP and EDP provisions.

4.3 The respective institutions may constitute a committee to scrutinize applications received at the end of the first or the second semester under EDP or ADP and select students accordingly.

4.4 The Committee constituted by the respective institutions will evaluate the credit-completing potential of a student based on their performance in the first or the second semester and give its recommendations.

4.5 The Committee shall recommend a reduction or an increase in the number of courses and total credits per semester, as per the duration opted by the students.

4.6 Under the ADP and EDP, the transcripts should record only the courses the students take in a semester.

Regulations and guidelines from statutory regulatory authorities will take precedence over these regulations. Any updates or amendments to the regulatory guidelines will be incorporated into the university's regulations as required.

5. Maximum period for Completion of the Program:

The Architecture Program shall be completed in a maximum period of 8 consecutive years. However, in special circumstances a candidate may be granted an extension of 1 year by the University/ Institute to complete the program. This extension shall be given only once to the candidate.

6. Medium of Instruction and Examinations

The medium of instruction and examination shall be English.

7. Eligibility for Admission:

7.1 No candidate shall be admitted to the Bachelor of Architecture (B.Arch.) Program until they have attained 17 years of age on or before 31st December of the admission year.

and

Unless they have passed 10+2 or equivalent examination with Physics and Mathematics as compulsory subjects along with either Chemistry or Biology or Technical Vocational subject or Computer Science or Information Technology or Informatics Practices or Engineering Graphics or Business Studies with at least 45% marks in aggregate or passed 10+3 Diploma Examination with Mathematics as compulsory subject with at least 45% marks in aggregate.

Or

(40% for SC/ST candidates) are eligible for the programme.

and

In addition to the above, the candidate needs to qualify in the aptitude test prescribed by the Competent Regulatory Authorities.

7.2 Foreign Nationals and candidates who have qualified from a Foreign University/Board should obtain permission from Nitte (Deemed to be University) prior to the admission for equivalence of the qualification and other regulatory requirements.

7.3 Regulations and guidelines from statutory regulatory authorities will take precedence over these regulations.

8. Concurrent Academic Engagements:

Nitte (Deemed to be University) permits students to pursue two academic programs simultaneously, as per applicable university regulations, in alignment with the National Education Policy (NEP) 2020 and the UGC's guidelines.

a. **Prior Approval:** Students must seek prior written approval from Nitte (Deemed to be University) before enrolling in the second academic program. The application for approval must include details of the second program and its alignment with the student's primary program of study.
b. **Adherence to Guidelines:** Regulations and guidelines from statutory regulatory authorities will take precedence over these regulations. Any updates or amendments to the regulatory guidelines will be incorporated into the University's regulations as required.

9. Selection of Eligible Candidates:

9.1 Reservation policy shall be as per Nitte (Deemed to be University) eligibility guidelines.

9.2 Selection to the B.Arch. program shall be based on the basis of combined merit obtained in the qualifying examination (as stated in clause 7) and the aptitude test.

10. Academic Bank of Credits (ABC):

The University has integrated the Academic Bank of Credits (ABC) system into the architecture curriculum in alignment with the National Education Policy (NEP) 2020, and the UGC regulations.

10.1 This system allows students to accumulate credits earned across semesters in mandatory and elective courses.

10.2 Credits are deposited in a digital account (ABC ID) linked to the student on the national portal (www.abc.gov.in)

10.3 ABC allows students to transfer credits between recognised institutions, enabling lateral movement, course/module transfers, or resuming studies after a break.

10.4 Credits stored in the ABC cam be used to claim Certificate or Degree awards at approved exit points.

11. Entry and Exit Framework

a. Entry Policy

i. Entry into any semester of the B.Arch. programme shall be permitted based on the recommendations of the equivalence committee constituted by the respective institute, in accordance with the university regulations, and in compliance with the norms prescribed by the competent regulatory authorities.

ii. Entry into any semester of the B.Arch. programme may be facilitated through the Academic Bank of Credits (ABC), enabling credit transfer and accumulation in line with NEP guidelines.

b. Exit Policy

i. Candidates admitted to the programme may be permitted to exit upon successful completion of the Level 1 (Common Foundation) or Level 2. They shall be awarded a Certificate or Degree, as applicable, as per the table below.

Exit Point	Duration	Minimum Credits	Value added Points	Program Type/ Award
Exit 1	1 Year (2 Semesters)	52	30	Foundation Certificate in Built Environment
Exit 2	3 Years (6 Semesters)	156	90	B.Sc. (Building Design)

ii. If a candidate applies to exit the programme, the respective certificate will be issued, only after the candidate fulfils the University norms.

iii. Those candidates who have received any scholarship/ stipend/ other forms of assistance from the Institute shall settle all such amounts as per the University norms.

12. Program Transfer

A student enrolled in the B.Arch. / B. Des. / B. Plan or any applicable program of the University shall be permitted to transfer as per the conditions listed below:

a. **Eligibility for Program Transfer**

i. A student must satisfy the admission requirements of the program that they are transferring into.

ii. Students have to satisfy the requirements of promotion to the next higher semester.

iii. Program transfer is only allowed between semester 1 and 2, and semesters 2 and 3. Once approved, the decision shall be final and binding.

b. **Application Procedure**

i. Students intending to avail a program transfer must submit a formal application to the Head of the respective Institution before the commencement of the semester.

ii. Applications shall be reviewed by the equivalence committee constituted by the respective institute, in accordance with the university regulations, and in compliance with the norms prescribed by the competent regulatory authorities.

c. **Credit Transfer and Course Equivalence**

i. All courses successfully completed during the Level 1 (Common Foundation) shall be treated as equivalent and transferable across B.Arch, B.Des, and B.Plan programs or any applicable program of the University.

ii. Remedial/bridge courses will be offered during the summer/winter sessions, as per the recommendations of the equivalence committee.

iii. Credits gained will be recorded in the student's academic transcript and reflected in the new program.

d. **Fees and Scholarships**

i. On approval of program transfer, the student shall be liable to pay the program fee structure as per university norms.

ii. Continuation of any scholarships or financial assistance awarded will be decided by the university.

13. Withdrawal – Temporary and Permanent:

13.1 Temporary:

a. A candidate who has been admitted to the program may be permitted to withdraw temporarily for a period of six months or more up to one year, preferably in one academic year under the following conditions:

i. To initiate start-up ventures, product development, foreign transfer etc. This however, is permitted only on the successful completion of all courses in the first six semesters. A request, with ample evidence to the seriousness of the venture, should be forwarded to the Head of Institute for approval,

OR

On the grounds of prolonged illness, grave calamity in the family, etc. provided:

ii. They apply stating the reason for withdrawal with supporting documents and endorsement by parent/ guardian.
iii. The Institute is satisfied that the candidate is likely to complete their requirement of the degree within maximum time specified.
iv. There are no outstanding dues or demands with the department, Institute, library, hostel, etc.

b. The tuition fee for the subsequent year may be collected in advance at the discretion of the Institute/University before giving approval for any such temporary withdrawal.
c. Scholarship holders are bound by the appropriate rules applicable
d. The decision of the Institute/University regarding withdrawal of a candidate is final and binding.

13.2 Permanent:

a. A newly admitted candidate who withdraws admission before the closing date of admission for the academic session is eligible for the refund of the deposit only. The fees once paid will not be refunded on any account.
b. If a candidate wants to leave the Institute, they will be permitted to do so and take the Transfer Certificate from the Institute/University, if required, as per university norms.
c. Those candidates who have received any scholarship/ stipend/ other forms of assistance from the Institute shall repay all such amounts in addition to those mentioned in the clause above. The decision of the Institute/University regarding withdrawal of a candidate is final and binding.

14. Credit and Registration System:

The program follows a Credit Based Semester System (CBSS).

14.1 All students are required to complete course registration for mandatory, Elective, and Value-added courses with their respective institutes prior to the commencement of each academic term in accordance with clause 18. This requirement shall apply to the odd semester, even semester, and summer term.

15. Conduct and Discipline:

15.1 Code of Conduct

i. A Code of Conduct and Policy Against Sexual Harassment, Policy Against Substance Abuse, Policy on Intellectual Property Rights Protection, Information Technology Policy and other policies have been formulated to provide a clear statement of the University's expectations of students in respect of academic matters and personal behavior. Study at the Institute presents opportunities for interacting with other members of the University community. The University recognizes and values the diversity of student experiences and expectations, and is committed to treating students, both academically and personally, in a fair and transparent manner. All students, in return, are required to comply with the requirements set down in the Code of Conduct published by the University and made available on the University website.

15.2 Ragging

i. As per the Order of the Honourable Supreme Court of India, ragging in any manner is considered a punishable criminal offence and is banned. Any student found indulging in ragging, in whatever manner, either directly or indirectly, shall be severely dealt with.

ii. Ragging means causing, inducing, compelling or forcing students, whether by the way of a practical joke or otherwise, to do any act which detracts from human dignity or violated their person or exposes them to ridicule or to forbear from doing any lawful act by intimidating wrongfully restraining, wrongfully confining or injuring them or by using criminal intimidation, wrongful restraint, wrongful confinement, injury or the use of criminal force.

16. Graduation Requirements:

Candidate shall be declared eligible for the award of the degree if they have:

i. Fulfilled the degree requirements.

ii. No dues to the University, Institute, Departments, Hostels, Library, etc.

iii. No disciplinary action pending against them.

The award of the degree must be recommended by the Academic Council and the Executive Council.

17. Convocation:

The degree will be awarded to all the eligible candidates who have graduated during the preceding academic year at the annual convocation. For eligible candidates who are unable to attend the convocation, the degree will be sent by post. Candidates are required to apply for the convocation along-with prescribed fee within the specified date, after satisfactory completion of all degree requirements.

18. Structure of the Program

A candidate shall have earned 260 credits, 120 points of Value-Added courses, to be eligible for the award of B.Arch. Degree of the University.

Types of Courses	Credits	Weightage
Professional Core (PC) courses	136	52.3%
Building Sciences and Applied Engineering (BS and AE) courses	50	19.2%
Elective courses (PE, OE)	32	12.3%
Professional Ability Enhancement courses (PAEC) (PAECC, SEC)	42	16.2%

For a semester-wise distribution of credits please refer to Annexure 1.

The Program consists of the following Mandatory Courses:

Professional Core (PC) Courses	**Building Sciences and Applied Engineering (BS and AE) Courses**	**Professional Ability Enhancement Courses (PAEC) (PAECC, SEC)**
Foundation Studio 1&2	Ecology and Planning	Computational Tools 1&2
History and Context 1&2	Mechanics of Making	Creative Expression and Communication
Design Fundamentals 1&2	Technology and Systems	Professional Ethics
Graphics 1&2	Survey	Project Management
Architectural Design 1,2&3	Environmental and Structural Systems	Dissertation
History and Construction	Digital Craft Workshop	Professional Practice
Theory of Architecture	Integrated Building Systems and Services	Internship
History and Urbanism 1&2	Innovation Lab	Business Skills
Interior Studio	Environmental Systems and Construction Practices	
Masterclass	Architectural Construction Documentation	
Urban Studio	High Performance Building Systems	
Advanced/Exchange Studio	Advanced Construction Systems	
Thesis Seminar 1	Learning from Practice	
Thesis Seminar 2		
Capstone Project		
Capstone Project Colloquium		

The following are a list of Elective course categories. Elective courses will be offered under one of the above categories. Electives shall be offered at the discretion of the respective Institute.

Course Format	Categories
25BARE1	Artificial Intelligence
25BARE2	Building Performance
25BARE3	Communication
25BARE4	Computation and Graphics
25BARE5	Conservation and Heritage
25BARE6	Construction Workshop
25BARE7	Critical Thinking
25BARE8	Design
25BARE9	Design Process and Theory
25BARE10	Economics
25BARE11	Engineering
25BARE12	Entrepreneurship and Business
25BARE13	Environmental Studies
25BARE14	Finance
25BARE15	Global History
25BARE16	Health Sciences
25BARE17	Humanities
25BARE18	Indian Knowledge Systems (IKS)

Course Format	Categories
25BARE19	Innovation and Design Thinking
25BARE20	Innovative Technologies
25BARE21	Intellectual Property Rights
25BARE22	Interdisciplinary Studies
25BARE23	Liberal Arts
25BARE24	Management
25BARE25	Material Workshop
25BARE26	Media Studies
25BARE27	Performing Arts
25BARE28	Professional Training
25BARE29	Psychology
25BARE30	Research
25BARE31	Site Analysis / Documentation
25BARE32	Society and Governance
25BARE33	Study Tour
25BARE34	Sustainability
25BARE35	Visual Arts
25BARE36	Language

19. Course of Study

SEMESTER 1

Level 1 (Common Foundation)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR101	Foundation Studio 1	8	1	1	6	8	400	400	800	200	200	-	-
25BAR102	Ecology and Planning	2	1	1	0	2	100	100	200	25	25	50	2 Hours
25BAR103	History and Context 1	3	1	0	2	3	150	150	300	75	75	-	-
25BAR104	Computational Tools 1	2	0	0	2	2	100	100	200	50	50	-	-
25BAR105	Design Fundamentals 1	3	1	0	2	3	150	150	300	75	75	-	-
25BAR106	Graphics 1	3	1	2	0	3	150	150	300	50	50	50	2 Hours
25BAR107	Mechanics of Making	3	1	2	0	3	150	150	300	50	50	50	2 Hours
25BAR108	Creative Expression and Communication	2	1	1	0	2	100	100	200	50	50	-	-
Total		26	7	7	12	26	1300	1300	2600	575	575	150	

SEMESTER 02 (TRACK-WISE)

Level 1 (Common Foundation)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration (Hrs.)
25BAR201	Foundation Studio 2	8	1	3	4	8	400	400	800	200	200	-	-
25BAR202	Technology and Systems	3	1	2	0	3	150	150	300	50	50	50	2 Hours
25BAR203	History and Context 2	3	1	0	2	3	150	150	300	75	75	-	-
25BAR204	Computational Tools 2	2	0	0	2	2	100	100	200	50	50	-	-
25BAR205	Design Fundamentals 2	3	1	0	2	3	150	150	300	75	75	-	-
25BAR206	Graphics 2	3	1	2	0	3	150	150	300	50	50	50*	2 Hours
25BAR207	Survey	2	0	0	2	2	100	100	200	50	50	-	-
25BAR YY EX	Cross-disciplinary Elective	2	-	-	-	2	100	100	200	50	50	-	-
Total		26					1300	1300	2600	600	600	100	

***Lab Examination.**

SEMESTER 03 (LEVEL 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio / Capstone Project	Lab/ Workshop / Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR301	Architectural Design 1: Vertical Studio	9	1	4	4	9	450	450	900	225	225	-	-
25BAR302	Environmental and Structural Systems	6	2	2	2	6	300	300	600	100	100	100	3 Hours
25BAR303	History and Construction	3	1	1	1	3	150	150	300	75	75	-	-
25BAR304	Digital Craft Workshop	3	1	0	2	3	150	150	300	75	75	-	-
25BAR305	Theory of Architecture	3	1	0	2	3	150	150	300	75	75	-	-
25 BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
Total		26					1300	1300	2600	600	600	100	

*** One elective course of 2 credits is recommended**

SEMESTER 04 (LEVEL 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR401	Architectural Design 2: Housing Studio	9	1	4	4	9	450	450	900	225	225	-	-
25BAR402	Integrated Building Systems and Services	6	2	2	2	6	300	300	600	100	100	100	3 Hours
25BAR403	History and Urbanism 1	3	1	0	2	3	150	150	300	75	75	-	-
25BAR404	Innovation Lab	3	0	0	3	3	150	150	300	75	75	-	-
25BAR405	Interior Studio	3	1	1	1	3	150	150	300	75	75	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
Total		**26**					**1300**	**1300**	**2600**	**600**	**600**	**100**	

*** One elective course of 2 credits is recommended**

SEMESTER 05 (LEVEL 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab / Workshop/ Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR501	Architectural Design 3: Vertical Studio	9	1	4	4	9	450	450	900	225	225	-	-
25BAR502	Environmental Systems and Construction Practices	6	2	2	2	6	300	300	600	100	100	100	3 Hours
25BAR503	History and Urbanism 2	3	1	0	2	3	150	150	300	75	75	-	-
25BAR504	Architectural Construction Documentation	4	1	3	0	4	200	200	400	100	100	-	-
25BAR505	Professional Ethics	2	1	0	1	2	100	100	200	50	50	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
-	Co-op Prep.**	0	0	0	1	1	-	-	-	-	-	-	-
Total		**26**					1300	1300	2600	600	600	100	

*** One elective course of 2 credits is recommended**

**** Only applicable for institutes offering Co-op Track**

SEMESTER 06 (INTER-DISCIPLINARY TRACK) (LEVEL 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
										Review		Written	
							CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration (Hrs.)
25BAR601	Masterclass	10	1	4	5	10	500	500	1000	250	250	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
Total		**26**					**1300**	**1300**	**2600**	**650**	**650**		

SEMESTER 06

(CO-OP TRACK) (LEVEL 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR601	Masterclass	10	1	4	5	10	500	500	1000	250	250	-	-
25BAR605	Co-operative Learning	16	-	-	-	-*	800	800	1600	400	400	-	-
Total		**26**					**1300**	**1300**	**2600**	**650**	**650**		

*** As per regulations**

SEMESTER 07 (LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
										Review		Written	
							CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration
25BAR701	Urban Studio	12	1	9	2	12	600	600	1200	300	300	-	-
25BAR702	High Performance Building Systems	6	2	2	2	6	300	300	600	100	100	100	3 Hours
25BAR703	Project Management	4	2	1	1	4	200	200	400	75	75	50	2 Hours
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
Total		**26**					**1300**	**1300**	**2600**	**575**	**575**	**150**	

*** Two elective courses of 2 credits each are recommended**

SEMESTER 08 (LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR801	Advanced/Exchange Studio	12	1	8	3	12	600	600	1200	300	300	-	-
25BAR802	Advanced Construction Systems	4	1	2	1	4	200	200	400	75	75	50	2 Hours
25BAR803	Thesis Seminar 1	2	0	0	2	2	100	100	200	50-	50	-	-
25BAR804	Dissertation	3	1	0	2	3	150	150	300	75	75	-	-
25BAR805	Professional Practice	3	1	0	2	3	150	150	300	75	75	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
Total		**26**					**1300**	**1300**	**2600**	**625**	**625**	**50**	

*** One elective course of 2 credits is recommended**

SEMESTER 09 (LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR901	Thesis Seminar 2	2	0	0	2	2	100	100	200	50	50	-	-
25BAR904	Internship	22	-	-	-	-*	1100	1100	2200	550	550	-	-
25BAR905	Learning from Practice	2	0	0	2	2	100	100	200	50	50	-	-
Total		**26**					**1300**	**1300**	**2600**	**650**	**650**		

*** As per regulations**

SEMESTER 10 (LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR 1001	Capstone Project	18	2	8	8	18	900	900	1800	450	450	-	-
25BAR 1002	Capstone Project Colloquium	4	0	0	4	4	200	200	400	100	100	-	-
25BAR 1003	Business Skills	2	1	0	1	2	100	100	200	50	50	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	100	100	-	-
Total		**26**					**1300**	**1300**	**2600**	**700**	**700**		

*** One elective course of 2 credits is recommended**

ELECTIVE (LEVEL 2, LEVEL 3, OPEN ELECTIVE, GLOBAL ELECTIVES)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop/ Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR YY EX	Cross-disciplinary Elective	2	-	-	-	2	100	100	200	50	50	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-

25	2025 Year of syllabus revision	E	Elective
BAR	B.Arch.	X	Course Number e.g., 1,2,3 etc.
YY	Year of offering		

Course Format Categories

25BARE1	Artificial Intelligence	25BARE19	Innovation and Design Thinking
25BARE2	Building Performance	25BARE20	Innovative Technologies
25BARE3	Communication	25BARE21	Intellectual Property Rights
25BARE4	Computation and Graphics	25BARE22	Interdisciplinary Studies
25BARE5	Conservation and Heritage	25BARE23	Liberal Arts
25BARE6	Construction Workshop	25BARE24	Management
25BARE7	Critical Thinking	25BARE25	Material Workshop
25BARE8	Design	25BARE26	Media Studies
25BARE9	Design Process and Theory	25BARE27	Performing Arts
25BARE10	Economics	25BARE28	Professional Training
25BARE11	Engineering	25BARE29	Psychology
25BARE12	Entrepreneurship and Business	25BARE30	Research
25BARE13	Environmental Studies	25BARE31	Site Analysis / Documentation
25BARE14	Finance	25BARE32	Society and Governance
25BARE15	Global History	25BARE33	Study Tour
25BARE16	Health Sciences	25BARE34	Sustainability
25BARE17	Humanities	25BARE35	Visual Arts
25BARE18	Indian Knowledge Systems (IKS)	25BARE36	Language

19.1 Design Studio courses, Master Class, Co-operative Learning, and Internship:

As a partial fulfilment of the requirements of the B.Arch. program. A candidate is required to complete Design Studio courses, Co-operative Learning, and Internship.

19.1.1 **Design Studio Courses**

Design Studios form the crux of the architectural educational curriculum. Studios are where students synthesize their learnings in various other courses and apply it towards the design of an architectural project.

a. **Foundation Studio**

This studio introduces students to the fundamentals of design through hands-on exploration and critical thinking. By working with materials, studying natural systems, and testing ideas through model making, drawings, and prototyping, students learn how forms take shape and how spaces respond to human use and environmental context. The course encourages creativity, observation, and analysis, guiding students to develop thoughtful design solutions that connect concept, function, and experience.

b. **Vertical Studio**

Vertical Studios are conducted at Level 2 between semester three and semester five focusing on program-based architectural design of mid- to large-scale projects, emphasizing spatial organization, environmental responsiveness, and the integration of form, structure, and user needs across multiple scales, fostering iterative, context-sensitive, and analytically grounded design solutions.

c. **Housing Studio**

Housing Studio is conducted at Level 2 fourth semester focuses on housing as both a spatial and social project. Emphasis is placed on developing housing units and clusters using drawings, volumetric and sectional models, and iterative diagrams.

d. **Urban Studio**

This studio conducted at Level 3, in the seventh semester, helps students critically engage with urban environments through a multidisciplinary, systems-based approach.

e. **Advanced / Exchange Studio**

The Advanced/Exchange studio, conducted at Level 3, in the eighth semester, offers an explorative platform for architectural design, where complexity, diversity, and scale become central to the design inquiry.

This course may also be pursued as an approved Exchange Studio with partnered institutions in India or abroad, subject to academic equivalency, credit matching, and prior approval by both institutions.

f. **Master Class**

The Master Class are Expert-Led sessions focussing on advanced topics in architecture in blended learning mode.

g. **Co-operative Learning:**

Co-operative Learning offered at Level 2, in the sixth semester, as part of the co-op track, is a choice-based experiential learning program that takes education beyond the classroom. Students will have to undergo a minimum of 12 working weeks of full-time work under the supervision of an expert from architecture or allied fields. Students are adequately supervised and evaluated to ensure that the work experience is balanced with academic requirements, and academic goals are met. Candidates availing Co-operative Learning in semester 6 shall attend a ‘Co-op Prep’course during semester 5.

19.1.2 **Internship:**

Students will have to undergo at least 16 working weeks of internship in semester 9, as per the norms laid by the Competent Regulatory Authority, in the office of an architect or an organization operating in an allied field of practice or research, duly approved by the institution, under mentorship of an architect having experience of at least 5 years.

19.2 Electives:

To fulfil the requirements of the B.Arch. program a candidate is required to complete 32 credits of Elective courses included in the 260 credits mandated by the program.

19.2.1 **Type of Elective courses offered:**

a. Cross disciplinary Elective: courses offered to Level 1 students only.

b. L2 Elective courses: Courses offered to Level 2 students only.

c. L3 Elective courses: Courses offered to Level 3 students only.

d. Interdisciplinary Elective: Elective course offered in the 6th semester for the Interdisciplinary track.

e. Elective (Open): Courses offered across all Levels.

f. Elective (Global): Courses offered by one of the constituent Institutes of the university that can be availed by all students of the University.

19.2.2 Electives shall be offered at the discretion of the respective institute.

19.2.3 In semester 6, institutes have the option of offering either a cross-disciplinary track, comprising four interdisciplinary elective courses, or a co-op track, consisting of a single 16 credit course.

19.2.4 Candidates may opt for no more than 4 elective credits per semester in semesters 2, 3, 4, 5, 8, and 10 and no more than 6 elective credits per semester in semester 7. Candidates are advised against taking elective courses in semester 6 (if opting for co-op track), and in semester 9.

19.2.5 Only 32 credits of elective courses will be considered towards the total of 260 credits mandated by the university.

19.2.6 Candidates opting to take more than the required 32 credits of elective courses mandated by the university will have to pay additional fees as notified by the university norms.

19.2.7 A minimum number of ten* candidates shall be required to offer and conduct an Elective course.

*At the discretion of the respective Institute/ University.

19.3 Value Added Courses:

19.3.1 To fulfil the requirements of the B.Arch. program a candidate is required to complete a minimum of 120 Points of Value Added courses in addition to the 260 credits mandated by the program.

19.3.2 Students must gain a minimum of 60 Points to progress from Level 2 to Level 3.

19.3.3 Such courses may be offered by the respective Institute during the academic year.

19.3.4 Students taking up Value Added courses other than those offered by the Institute should seek prior approval from the respective Institute.

19.3.5 A full day of engagement is considered as 8 hours and half day of engagement is considered as 4 hours.

19.3.6 Maximum number of Value-Added points awarded for any single course should not exceed a total of 30 points.

19.3.7 A student has to produce a report/portfolio upon completion and achieve a passing grade to complete the Value-Added courses.

19.3.8 Value Added Points will be awarded based on the following table below, and shall be informed to the students before the start of the course.

Criteria for Awarding Value Added Points		
S.No.	**Course Type**	**Total Course Duration: Points Awarded**
1	Workshop	1:1
2	Travel	2:1
3	Internship	4:1
4	Club Activity*	2:1
5	Online (MOOC)	1:1
6	Outreach Activity*	2:1
7	Competition	2:1
8	Language	1:1
9	Research	2:1
10	Entrepreneurship and Innovation	2:1
11	Certification courses	1:1

***Only formal meetings and events will be considered**

19.3.9 Any course type not falling within the specified categories shall require a declaration of equivalence, regarding total course duration and points awarded, by the respective institute, prior to enrolment or commencement.

19.4 Teaching and Learning Methods

The courses as listed in the curriculum table shall be delivered as specified in respective course syllabus or in an appropriate mode as detailed in course plan approved by the respective institute.

19.4.1 Blended learning is a combination of offline and online learning in a way that the one compliments the other. This refers specifically to,

19.4.1.1 Certain courses, modules within courses, or parts of modules that are designed to be taught online or as self-directed study,

19.4.1.2 Courses for which students are expected to register on the e-learning portal, and content shared therein,

19.4.1.3 Courses where certain components such as video conferencing, online evaluations including submissions, quizzes, tests etc., pre-recorded lectures, or digital material, are a part of the method of delivery.

19.4.2 Class Exercises are short, focused tasks conducted during contact hours to reinforce understanding, promote active learning, and test the application of key concepts.

19.4.3 Field Trip helps to consolidate course contents by acquainting students not only with professional practice but also the culture and context of a region.

19.4.4 Fieldwork enables students to engage with real-world contexts through site visits, community interactions, surveys, or case-based research, promoting experiential and situated learning.

19.4.5 In design studios/ construction studios/ projects the students contribute to the processing, analysis and the solving of problems of direct professional practice, attended by faculty(s) entitled to conduct the studio and examine.

19.4.6 In Internship the students engage in work in an architectural practice/ government architecture departments and train specifically under architects registered with the Council.

19.4.7 In labs/ workshops the contents of the course shall be delivered through hands-on work and experiments.

19.4.8 In studio exercises the teachers shall take the lead to provide tasks and offer guidance for solutions finding. The students shall work either individually or in groups.

19.4.9 Lectures are held to teach basic connections and the systemization of theoretical knowledge and the methodology of scientific work. Specific courses are presented in a well-structured form, incorporating new research results.

19.4.10 Research requires a candidate to spend time surveying, investigating and evaluating a field of knowledge that culminates in a paper where the candidate presents their own interpretation, evaluation, or argument about a subject to thoughtfully offer a unique perspective on the issue.

19.4.11 Seminars and Colloquia serve as platforms for dialogue and discussion, encouraging deeper exploration of topics through critical engagement. Colloquia may include expert presentations and peer reviews to enhance the seminar experience.

20. Attendance

20.1 A candidate shall study in the Institute for the entire period as a full-time student. No candidate may register for any other degree examination conducted by this University or any other University in India or abroad during the period of study without prior written consent from the Institute/University.

20.2 Each semester shall be taken as a unit for the purpose of calculating attendance.

20.3 A candidate who has a minimum of 80% of attendance in each course separately and who has fulfilled other requirements of the program shall be permitted to appear for the respective University examinations.

20.4 A candidate having shortage of attendance shall not be eligible to answer the University examination.

21. Examination and Assessment:

There shall be a University Examination at the end of each semester.

21.1 **Scheme of Examination**:

Evaluation is based on formative evaluation (Continuous Internal Evaluation) and summative evaluation (Semester End Examination).

21.1.1 **Continuous Internal Evaluation (CIE)**

21.1.1.1 CIE is calculated on the basis of periodic evaluations such as Assignment Review, Jury, Quiz, Seminar, Time Problem, Written Assignment Review, and Written Test.

21.1.1.2 A candidate must secure at least 50% of CIE marks in a particular course in order to be eligible to appear for the Semester End Examination of that course.

21.1.1.3 A candidate who is ineligible to appear for the Semester End Examination due to lack of CIE marks only, may be permitted to improve the CIE marks of the respective course, in the subsequent semesters, subject to the CIE improvement procedures prescribed by the respective Institute.

21.1.1.4 A candidate who secures the minimum required CIE marks through the improvement procedures shall be eligible to appear for the supplementary examination of the respective course in the following academic year.

21.1.2 **Semester End Examination (SEE):**

A candidate who satisfies the requirements of attendance, CIE marks and conduct shall be eligible to appear for the University examinations. There shall be a University Examination at the end of each semester.

To be eligible to appear for the University examination in a particular course, a candidate should fulfill all the following conditions.

i. Satisfy the requirements of the course for the prescribed duration;
ii. Secure at least 50% of total CIE marks in the course;
iii. Fulfil any other requirement that may be prescribed by the University from time to time.

21.2 **Assessment Procedure:**

The academic performance is assessed on the basis of both Continuous Internal Evaluation (CIE) and Semester End Examination (SEE) in each semester. CIE: SEE weightage will be in the ratio of 50:50.

21.3 **Criteria for Pass:**

21.3.1 A candidate is declared to have passed in a course, if they secure not less than 50% in the aggregate, i.e., total CIE and SEE put together, provided they secure a minimum of 50% of the marks separately in the Continuous Internal Evaluation (CIE), and each component (Review, Written Examination, and Lab Evaluation) of the Semester End Examination (SEE) prescribed for the course.

21.3.2 A candidate who fails in the Review or Written Examination or Lab Evaluation of a course shall appear only for that part of the examination or for both as the case may be in the supplementary examination.

22. Academic Performance Evaluation:

22.1 **Grading System:**

The performance of a candidate shall be evaluated according to a Letter Grading System, based on both CIE and SEE, provided they pass CIE and SEE separately. The letter grades (O, S, A+, A, B, C, F & I) indicate the level of academic achievement assessed on a 10 point scale (0 to10).

Marks Range (%)	Grade Point	Letter Grade	Descriptor
90 & above	10	O	Outstanding
80-89.99	9	S	Excellent
75-79.99	8	A+	Very Good
65-74.99	7	A	Good
60-64.99	6	B	Average
50-59.99	5	C	Pass
Below 50	0	F	Fails
Below 50	0	I	Absent

22.1.1 A candidate shall be considered to have completed a course successfully and earned the credits assigned, if they secure an acceptable letter grade in the range O-C. Letter grade 'F' in any course implies failure in that course and no credit is earned.

22.1.2 A candidate having satisfactory attendance at classes and meeting the passing standard at CIE in a course but remained absent from SEE shall be awarded 'I' grade in that course.

22.2 Grade Point Averages:

The overall performance of a candidate will be indicated by Grade Point Average (GPA). For each course, grade points will be awarded as per a letter grading system.

Semester Grade Point Average (SGPA) is computed as follows:

$$SGPA = \frac{\sum [(course\ credit)\ X\ (Grade\ point)]\ for\ all\ courses\ with\ Letter\ grades,\ including\ F}{\sum [(course\ credits)]\ for\ all\ courses\ with\ Letter\ grades, including\ F}$$

Cumulative Grade Point Average (CGPA) is computed as follows:

$$CGPA = \frac{\sum [(course\ credit)\ X\ (Grade\ point)]\ for\ all\ courses\ for\ all\ semesters\ with,\ Letter\ grades\ excluding\ F}{\sum [(course\ credits)]\ for\ all\ courses\ for\ all\ semesters\ with\ Letter\ grades, excluding\ F}$$

22.3 Conversion of Grades into Percentage:

Formula for conversion of GPA into percentage:

CGPA earned x 10 = Percentage of marks scored

Illustration: (CGPA Earned 8.18 x 10) = 81.80 %

22.4 Award of Class:

The candidate, who has earned260 credits and 120 Value Added points, shall be declared to have passed the program. Class will be awarded on the basis of CGPA.

Classification	CGPA
I Class with Distinction	9.00 and above
	8.00-8.99
	7.50-7.99
I Class	6.00-7.49
II Class	5.00-5.99
Fails	Less than 5

i. A candidate who secures CGPA ≥ 7.50 in all mandatory courses in the first attempt shall be declared to have passed in 'First Class with Distinction'.

ii. A candidate who secures CGPA ≥ 6.00 in all mandatory courses in the first attempt shall be declared to have passed in 'First Class'.

iii. A candidate who secures CGPA ≥ 5.00 but less than 5.99 in all mandatory courses in the first attempt shall be declared to have passed in 'Second Class'.

22.5 Conditions for Promotion:

i. To progress from Level 1 (Common Foundation) to Level 2, the candidate should have successfully gained 39 Credits.

ii. To progress from Level 2 to Level 3, the candidate should have successfully gained 132 Credits, gained a minimum of 18 Elective credits, and completed a minimum of 60 points of Value-Added courses.

iii. To progress from semester 9 to semester 10, candidates should have successfully gained 222 credits, gained a minimum of 28 Elective credits, completed a minimum of 105 points of Value-Added courses and successfully passed in 25BAR9.5 Internship course.

iv. A candidate shall not be permitted to enrol for the Architectural Design course in a semester unless they have completed the following Architectural Design courses of the previous semester.

ARCHITECTURAL DESIGN STUDIO COURSES	
25BAR201	Foundation Studio 2
25BAR301	Architectural Design 1: Vertical Studio
25BAR401	Architectural Design 2: Housing Studio
25BAR501	Architectural Design 3: Vertical Studio
25BAR601	Masterclass
25BAR701	Urban Studio
25BAR801	Advanced/Exchange Studio
25BAR 1001	Capstone Project

22.6 Rules for Grace Marks:

Grace marks up to 1% of the maximum total marks in the examination or 10 marks whichever is less shall be awarded to the failed course(s), provided that on award of grace marks the candidate passes in that course(s)/ examination. There shall be no provision to award grace marks for improvement of class.

23. Supplementary Examinations:

Supplementary examination shall be conducted by the University for the benefit of unsuccessful candidates. Supplementary examinations will be conducted within six weeks from the date of announcement of results for courses of the current semester.

23.1 A candidate will only be allowed one regular attempt and one supplementary attempt for any course in a given academic year.

23.2 A candidate detained for lack of attendance will be barred from appearing in the supplementary examination for the respective course.

23.3 A candidate who chooses not to appear for one or more courses in the regular semester-end examination without valid or approved reasons shall not be permitted to appear for those courses in the supplementary examination.

23.4 If a candidate has registered for the regular examination but is unable to appear in any or all courses due to exceptional circumstances (such as serious illness or other valid emergencies), they may be allowed to appear for the supplementary examination in those courses at the discretion of the respective Institute/University.

Such an appearance may be considered as their first attempt, subject to fulfilment of other academic requirements (such as attendance and minimum CIE marks), and at the discretion of the University.

23.5 Candidates permitted to appear for the supplementary examination shall be required to adhere to all procedures, processes, and regulations prescribed by the Institute.

24. Award of Merit Certificates:

Merit Certificates will be awarded on the basis of overall CGPA of 1 to 10 semester examinations. Further, only those candidates who have completed the program and fulfilled all the requirements in the minimum number of years prescribed (i.e., five years) and who have passed each semester in the first attempt are only eligible for the award of Gold Medal and Merit Certificates.

****

25.APPENDIX – A

Definitions, terminology, and abbreviations

1. **Nitte DU / University**
   a. Refers to Nitte (Deemed to be University)

2. **EC**
   a. Refers to Executive Council of Nitte (Deemed to be University)

3. **BoS**
   a. Refers to the Board of Studies in Architecture

4. **Institute/Institution**
   a. Refers to Nitte School of Architecture, Deralakatte, Mangalore and Nitte School of Architecture Planning and Design, Bangalore

5. **Program**
   a. A range of learning experiences over a specified period, leading to the award of a degree/diploma/certificate. A program is completed when the courses that make up the program are completed, and other requirements as specified in the program regulations are met.

6. **Course**
   a. A unit of learning that typically lasts one semester, led by one or more teachers, for a fixed roster of students. Often referred to as a "subject". A course has identified course outcomes, modules/units of study, specified teaching-learning methods, and assessment schemes. A course may be designed to include lectures, tutorials, practical, laboratory work fieldwork, project work, internship experiences, seminars, self-study components, online learning modules, etc. in any combination.

7. **Semester**
   a. An academic session, usually of 16 weeks duration, with a minimum of 90 working days during which coursework and assessments are to be completed. Typically, two semesters make up an academic year, with the first of these referred to as the Odd Semester and the second as the Even Semester.

8. **Credit**
   8.1 A unit by which the course work is measured. It determines the number of hours of formal learning (contact hours) required per week. Credits are calculated based on the concept of "notional learning time". Notional learning time is the number of hours that a learner is expected to spend, on average, to achieve the specified learning outcomes of the course. This may comprise a variable combination of scheduled learning activities, (lectures, seminars, labs, etc.) and self-directed learning time (reading required before classes, working on assignments, examination preparation, and completion of assessments).
   8.2 In the Credit System, the course work of students is unitized, and each unit is assigned one credit after a student completes the teaching-learning process as prescribed for that unit and is successful in its assessment.

8.3 Credit Definition: The following widely accepted definition for credit can provide good flexibility to the students and strengthens CBCS under the University. Here, one unit of course work and its corresponding one credit (while referring to the main semester) shall be equal to:

- Four-credit theory courses shall be designed for 60 hours of the Teaching-Learning process.
- Three-credit theory courses shall be designed for 45 hours of the Teaching-Learning process.
- Two-credit theory courses shall be designed for 30 hours of the Teaching-Learning process.
- One credit theory course shall be designed for 15 hours of the Teaching-Learning process.

The above figures shall also be applicable in the case of the summer semester. Other student activities which are not demanding intellectually, or which do not lend to effective assessment, like practical training, study tours, and attending guest lectures shall not carry any credit.

8.4 Credit Assignment and Lower & Upper Limits for Course Credits Registration in a Semester

All courses comprise of specific Lecture/Tutorial/Practical/Project (L-T-P-J) schedule. The course credits are fixed based on the following norms.

Lecture / Tutorials / Practical:

- 1-hour Lecture per week is assigned 1.0 Credit.
- 1 -hour Tutorial session per week is assigned 1.0 Credit.
- 2-hour Lab. Session/ per week is assigned 1.0 credit.
- **3-Hour project work per week is assigned 1 Credit**

For example,

- A theory course with L-T-P-**J** schedule of 3-**0**-2-0 hours will be assigned 4.0 credits.
- A laboratory practical course with L-T-P-**J** schedule of 0-0-2-**0** hours will be assigned 1.0 credit.
- Calculation of Contact Hours / Week – A Typical Example

Example:

An LTP-C of 2-2-2-4 means 2 instructional units based on classroom lecture (L), one instructional unit of the tutorial (T), and one laboratory (P) based instructional unit all delivered during a calendar week and repeated for the entire duration of the semester to earn 4 credits (C) after passing the course.

- As advised by the faculty advisor, a student may register, between a minimum of **16 credits and up to a maximum of 24 credits.**

9. Credit equivalence of notional learning time for different types of activities

a. The credit values assigned to various teaching-learning activities are as follows:

Type of teaching learning	Nature of activity	No. of contact hours per week equivalent to one credit	The total number of contact hours over a 16-week semester is equivalent to one credit
Lectures / Seminars / synchronous virtual classes / synchronous webinars	Scheduled instruction	1:1	15
Tutorials	Scheduled instruction	2:1	30
Supervised Demonstrations /Laboratory sessions / Studio / Workshops / Workplace simulation / Skill Practice Sessions	Scheduled instruction	2:1	30
Supervised Field visits/community visits	Scheduled instruction	3:1	48
Scheduled self-directed study (individual or group)	Scheduled instruction	2:1	30
Asynchronous E Learning modules (structured self-directed study	Independent learning	2:1	32
Student Seminar	Independent/small group learning	2:1	32
Project work/dissertation	Independent/small group learning	3:1	48
Internship for credit	Industry placement/on job training (OJT)	--	45-48
Research Project/Internship	Project/Internship in a research organization/ centre of excellence of the institution.		45-48

10. Choice-based credit system (CBCS)

A program structure for higher education requires students to earn a minimum of credits by completing various types of courses, including electives, which facilitate a student to have some freedom in selecting his/her own choices, within as well as across disciplines.

11. Course Registration

Refers to formal registration of the Courses in the study every semester (Credits and Audit) by every student under the supervision of a faculty advisor. The institution will maintain records of the same and communicate them to the University.

12. Learning outcomes

a. Program Outcomes (PO) - Statements defining the skills, knowledge, and attitude that graduates of a program will be able to demonstrate upon completing the program

b. Course Outcomes (CO) - Statements defining the skills, knowledge, and attitude that students will be able to demonstrate upon completing the course. COs are mapped to the POs such that attaining the course outcomes leads to the attainment of program outcomes.

c. Attainment of POs-COs is mapped to the POs such that attaining the course outcomes leads to the attainment of program outcomes.

13. Evaluation

For all courses, the evaluation will be based on both formative assessment (Continuous Internal Evaluation, CIE) and summative assessment (Semester End Evaluation, SEE). Weightage for CIE and SEE will be 50% each

13.1 Continuous Internal Evaluation (CIE)

Refers to the periodic and continuous *formative assessment* of students' performance during the semester by the teacher(s) of the course to provide timely feedback to students and for guiding "course corrections" by the teachers. The assessment methods may include tests, quizzes, assignments, project evaluations, portfolio evaluations, seminar assessments, etc. CIE will have a weightage of 50% in the determination of the final grading of the course.

13.2 Semester End Evaluation (SEE)

Refers to a *summative assessment* that covers the entire course syllabus, conducted by the University, at the end of the semester. Appropriate assessment methods aligned with the learning domain and teaching-learning methods are to be used. CIE will have a weightage of 50% in the determination of the final grading of the course.

14. Grading

Course Grade refers to a qualitative measure of performance of a student in each course, based on the percentage of marks secured in Continuous Internal Evaluation (CIE) and Semester End Evaluation (SEE). A Letter grade is awarded for each course.

15. Semester Grade Point Average (SGPA)

Refers to the measure of a student's academic performance in a semester. It is calculated based on the credits and the grades obtained in the courses offered in the semester.

16. Cumulative Grade Point Average (CGPA)

Refers to the measure of the cumulative performance of a student in all the previous semesters and is computed from the 2nd semester onwards. It is calculated based on the credits and the grades obtained in all the courses taken.

17. Academic Bank of Credits (ABC)

The Academic Bank of Credits is a national-level facility for "credit transfer". It is provided by the Ministry of Education, Govt. of India, to promote the flexibility of the curriculum framework and interdisciplinary/multidisciplinary academic mobility of students across the Higher Education Institutions in the country. The banking and redemption of credits through ABC will be governed by the University's guidelines

SYLLABUS

B. ARCH.

NITTE INSTITUTE OF ARCHITECTURE

B.Arch. PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO 1	Socially Responsible Practice: Graduates will engage in architectural and urban practice that prioritizes equity, ethics, and environmental responsiveness.
PEO 2	Interdisciplinary Agility: Graduates will develop the capacity for critical inquiry and integrative thinking, engaging architectural knowledge alongside allied disciplines such as planning, technology, social sciences, and design innovation to address complex challenges.
PEO 3	Regional Sensitivity with Global Relevance: Graduates will develop contextually grounded practices that draw from local traditions while contributing to global discourses in architecture.
PEO 4	Leadership and Lifelong Learning: Graduates will grow into leadership roles in practice, research, or entrepreneurship, committed to continual learning and professional development.

B.Arch. PROGRAM OUTCOMES (POs)

PO 1	Ethical and Social Responsibility: Graduates will understand the ethical implications of architectural decisions and demonstrate a commitment to social responsibility, considering the impact of design on communities, cultures, and the environment.
PO 2	Design Proficiency: Graduates will demonstrate proficiency in architectural design, showcasing the ability to develop creative and innovative solutions for diverse spatial and environmental challenges.
PO 3	Critical Thinking and Analysis: Graduates will develop advanced analytical skills, allowing them to critically assess architectural problems, historical precedents, and contemporary issues to inform their design decisions.
PO 4	Environmental Awareness and Sustainability: Graduates will be well-versed in sustainable design principles, demonstrating the ability to integrate environmental considerations into architectural solutions for a more sustainable built environment.
PO 5	Historical and Cultural Context: Graduates will possess a comprehensive understanding of the historical and cultural contexts of architecture, enabling them to draw inspiration from diverse sources and contribute meaningfully to the cultural richness of the built environment.
PO 6	Health, Life Safety, and Technical Competence: Graduates will acquire a strong foundation in architectural technology, construction systems, and structural principles, enabling them to effectively integrate technical knowledge into their design solutions. They will demonstrate authoritative knowledge of statutory frameworks to safeguard the community and end user.
PO 7	Communication and Leadership Skills: Graduates will demonstrate advanced communication skills, effectively articulating architectural concepts. They will excel in teamwork, as evidenced by successful participation in collaborative projects and client interactions. The development of leadership capabilities within interdisciplinary teams and a commitment to continuous self-reflection will contribute to ongoing professional refinement.
PO 8	Professional Practice Knowledge: Graduates will gain insights into the legal, regulatory, and business aspects of architectural practice, preparing them for entry into the professional realm and understanding the responsibilities of an architect.
PO 9	Reflective and Adaptive Practice: Graduates will actively engage in reflective practices throughout their academic journey, encouraging introspection and critical self-analysis. This reflective approach will foster a deeper understanding of personal and professional growth, enhancing their ability to adapt, learn from experiences, and refine their ethical, design, and professional skills.
PO 10	Innovation and Interdisciplinary Integration: Graduates will be equipped to drive technological innovation in design and engage in interdisciplinary collaboration, fostering an entrepreneurial mindset to address complex architectural challenges.

B.Arch. PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO 1	Sustainable and Climate-Responsive Thinking: Apply design strategies that respond to local and regional contexts, integrating principles of sustainability, resilience, and environmental stewardship.
PSO 2	Experiential and Hands-on Learning: Demonstrate design thinking through making — integrating material exploration, hands-on fabrication, and prototyping as core components of architectural inquiry.
PSO 3	Innovation and Entrepreneurial Practice: Engage with emerging tools, technologies, and business models to develop adaptive, future-ready solutions with an entrepreneurial mindset.
PSO 4	Ethical and Social Responsibility in Practice: Make design decisions grounded in ethical reflection, cultural sensitivity, and a commitment to social equity and professional responsibility.
PSO 5	Iterative and Situated Design Practice: Demonstrate the ability to engage in iterative, context-sensitive, and collaborative design processes — integrating feedback, critique, and reflective thnking to navigate complexity and refine architectural solutions

Regulations and Curriculum - B.Arch.

SEMESTER 1

Level 1 (Common Foundation)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio/ Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR101	Foundation Studio 1	8	1	1	6	8	400	400	800	200	200	-	-
25BAR102	Ecology and Planning	2	1	1	0	2	100	100	200	25	25	50	2 Hours
25BAR103	History and Context 1	3	1	0	2	3	150	150	300	75	75	-	-
25BAR104	Computational Tools 1	2	0	0	2	2	100	100	200	50	50	-	-
25BAR105	Design Fundamentals 1	3	1	0	2	3	150	150	300	75	75	-	-
25BAR106	Graphics 1	3	1	2	0	3	150	150	300	50	50	50	2 Hours
25BAR107	Mechanics of Making	3	1	2	0	3	150	150	300	50	50	50	2 Hours
25BAR108	Creative Expression and Communication	2	1	1	0	2	100	100	200	50	50	-	-
Total		**26**											

Semester 01

FOUNDATION STUDIO 1

COURSE CODE: 25BAR101
CREDITS: 08

Type of Course:	**Professional Core Courses (PC)**
Prerequisites:	–

COURSE DESCRIPTION
This studio introduces students to design thinking through hands-on making, material inquiry, and iterative exploration. Emphasizing process over product, it encourages an intuitive and critical understanding of form, structure, and organization. Through bodily engagement—measuring, balancing, assembling—students explore how force, resistance, and transformation shape spatial experience. Working with diverse materials, they begin to develop a tactile sense of proportion, texture, and movement. The studio fosters close observation of natural systems, drawing principles from growth, erosion, layering, and adaptation. Iterative making is central: students build, test, fail, and revise to internalize design logic. Abstracting from material and environmental investigations, students generate foundational design propositions. The goal is to ground imagination in material experience while cultivating a curious, critical, and responsive creative approach**.**

No. Of Teaching Hours					**Scheme Of Examination**						
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/ Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	1	6	8	400	400	800	200	200	–	–
Per semester	15	15	90	120							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Demonstrate the ability to explore and manipulate diverse materials to uncover formal and experiential qualities through hands-on experimentation and intuitive form-finding.
Create	CO2	Interpret and translate patterns from natural systems—such as growth, erosion, and layering—into abstract design constructs that reflect underlying environmental logics.

Domain	Outcomes	
Apply	CO3	Develop awareness of form and interaction through bodily engagement and sensory feedback, articulating how scale, movement, and balance shape experiential understanding.
Create	CO4	Embrace an iterative design process that values exploration, failure, and revision as essential tools for generating original propositions—cultivating resilience, adaptability, and a willingness to overcome the fear of getting it wrong.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	1	3	2	2	0	1	0	0	2	2	0	No Co-Relation
CO2	1	2	2	3	2	0	0	0	1	1	1	Low Co-Relation
CO3	2	2	2	2	1	1	0	0	2	2	2	Medium Co-Relation
CO4	2	2	3	2	0	0	1	0	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	3	1	1	2	0	No Co-Relation
CO2	3	2	1	1	2	1	Low Co-Relation
CO3	2	3	0	1	3	2	Medium Co-Relation
CO4	2	3	2	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Making	CO1	1.1	Apply	Explore material properties using paper, wire, bamboo, fabric, clay, and found objects through bending, folding, joining, and layering.	Studio, Workshop	30
		1.2	Apply	Investigate force, resistance, and transformation through form-finding exercises.	Studio, Workshop	
	CO4	1.3	Analyse	Document process cycles (build–test–revise) to uncover form-behaviour relationships.	Studio, Workshop	
	CO1	1.4	Create	Develop prototypes at different scales and functions—focusing on tactility and construction logic.	Studio, Workshop	
2. Sensing	CO3	2.1	Understand	Use full-body exercises to explore balance, weight, motion, and proprioception.	Fieldwork, Studio, Seminar	20
		2.2	Apply	Map sensory responses (texture, heat, acoustics) to design elements and materials.	Fieldwork, Studio, Seminar	
		2.3	Analyse	Analyse how body–object–space relationships affect experience and usability.	Fieldwork, Studio, Seminar	
3. Observing	CO2	3.1	Understand	Record patterns of growth, erosion, branching, and layering in natural systems.	Fieldwork, Studio, Seminar	20
		3.2	Understand	Observe human behaviour in public environments—movement, rhythm, and aggregation.	Fieldwork, Studio, Seminar	
		3.3	Apply	Translate observations into abstract graphic or physical representations.	Fieldwork, Studio, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
4. Iterating	CO4	4.1	Create	Generate multiple versions of a concept using sketching, modelling, or digital media.	Studio, Workshop, Self-directed Study	25
		4.2	Evaluate	Reflect on feedback and rework ideas through structured critique and revision cycles.	Studio, Workshop, Self-directed Study	
		4.3	Apply	Explore iteration as a non-linear design process — revisiting form, material, and idea.	Studio, Workshop, Self-directed Study	
5. Abstracting	CO2	5.1	Apply	Synthesize insights from making, sensing, and observing into conceptual frameworks.	Studio, Workshop, Self-directed Study	25
	CO4	5.2	Create	Develop spatial or object-based propositions grounded in prior investigations.	Studio, Workshop, Self-directed Study	
		5.3	Communicate	Articulate design intent through models, diagrams, or narratives that link process to proposition.	Studio, Workshop, Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Making	Assignment Review, Jury, Time Problem	30	120	Review (Portfolio/ Digital Portfolio/ Report)	100
2. Sensing	Assignment Review, Jury, Seminar, Time Problem	20	50	Review (Portfolio/Digital Portfolio/ Report)	40
3. Observing	Assignment Review, Jury, Seminar, Time Problem	20	50	Review (Portfolio/Digital Portfolio/ Report)	50

Module	Method of Evaluation	Hours	Marks	Method of Evaluation	Marks
4. Iterating	Assignment Review, Jury, Time Problem	25	100	Review (Portfolio/Digital Portfolio/ Report)	110
5. Abstracting	Assignment Review, Jury, Time Problem	25	80	Review (Portfolio/Digital Portfolio/ Report)	100

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6. Stevens, Peter S. Patterns in Nature. Penguin Books, 1977.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 01

ECOLOGY AND PLANNING

COURSE CODE: 25BAR102
CREDITS: 02

Type of Course:	Building Sciences and Applied Engineering (BS and AE)
Prerequisites:	–

COURSE DESCRIPTION
To introduce students to various ecological principles and environmental systems for sustainable thinking and practice. It aims to build ecological literacy by exploring the interdependence between natural systems and human interventions in built environments. The course covers key concepts such as ecosystems, biodiversity, climate systems, resource cycles, and environmental degradation, with a focus on contextual understanding of local and global environmental challenges. Through lectures, fieldwork, and studio-based discussions, students will examine the ecological implications of design and planning decisions and be encouraged to adopt responsible and resilient approaches to spatial practices**.**

No. Of Teaching Hours					Scheme Of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Design Studio/ Construction Studio/Capstone Project	Lab/ Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	1	0	2	100	100	200	25	25	50	2 hours
Per semester	15	15	0	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Comprehend key ecological concepts such as ecosystems, biodiversity, energy flows, and biogeochemical cycles, and relate them to environmental and design contexts.
Analyse	CO2	Develop the ability to critically analyse local and global environmental issues, including climate change, resource depletion, and pollution, and assess their implications for the built environment.

Domain	Outcomes	
Apply	CO3	"Demonstrate an understanding of how ecological principles can inform sustainable design and planning strategies, fostering environmentally responsive spatial solutions.
Evaluate	CO4	Engage in observing, recording, and interpreting natural and human-modified environments through fieldwork, enhancing their capacity for ecological awareness in design processes.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	1	2	3	1	0	0	0	0	2	0	No Co-Relation
CO2	3	1	3	3	0	1	0	0	2	2	1	Low Co-Relation
CO3	3	3	2	3	1	2	0	0	2	2	2	Medium Co-Relation
CO4	2	2	3	2	2	0	2	0	3	1	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	0	0	2	0	0	No Co-Relation
CO2	3	0	0	3	0	1	Low Co-Relation
CO3	3	0	1	3	2	2	Medium Co-Relation
CO4	2	2	0	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Introduction to Ecology and environmental systems	CO1	1.1	Understand	Explore the definition and scope of ecology in the context of the built and natural environment along with the study of ecosystems and their components.	Lecture	10
		1.2	Understand	Understand biotic and abiotic factors and their interactions, learn ecological hierarchy, examine the interdependence of human and natural systems, ecosystem types and biodiversity concepts.	Lecture	
2. Climate, resources, and environmental change	CO2	2.1	Analyse	Examine climate systems, resource flows and understand the notion of climate change and global warming.	Self-directed Study	8
		2.2	Understand	Understand biogeochemical cycles and evaluate the relationship between environment and humans.	Lecture	
3. Environmental challenges	CO2	3.1	Evaluate	Explore the ecological consequences of urbanisation and ecological footprint. Investigate the environmental impacts of urbanisation and population growth.	Seminar	6
	CO3	3.2	Understand	Understand critical challenges like pollution, waste generation, water scarcity, and energy consumption. Introduce the principles of resilience and adaptation in ecological planning.	Lecture	
4. Fieldwork, reflections, and applications	CO4	4.1	Apply	Participate in field visits to observe and document natural and built environments. Conduct observational fieldwork in natural, rural, or urban ecosystems.	Fieldwork	6
		4.2	Apply	Engage in ecological mapping, site and environmental observations. Analyse spatial relationships between built and ecological elements.	Fieldwork, Class Exercise	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Introduction to ecology and environmental systems	Jury	10	30	Written Exam	20
2. Climate, resources, and environmental change	Jury	8	30	Written Exam	15
3. Environmental challenges	Jury	6	20	Written Exam	15
4. Fieldwork, reflections, and applications	Assignment Review	6	20	Review (Portfolio/Digital Portfolio/ Report)	50

REFERENCES

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4. Odum, E. P., & Barrett, G. W. (2005). Fundamentals Of Ecology (5th Ed.). Brooks Cole.
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7. Singh, J. S., Singh, S. P., & Gupta, S. R. (2006). Ecology, Environment And Resource Conservation. Anamaya Publishers.

Note: The References Provided Above Are Suggestive Only. The Course Faculty May Recommend Alternatives In The Course Plan And Get It Approved By The Director As Instructed.

Semester 01

HISTORY AND CONTEXT 1

COURSE CODE: 25BAR103

CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION
This course introduces the reciprocal relationships between people, place, and designed artefacts. Moving fluidly across scales—from body to landscape—and media—built space, graphic image, digital interface—it explores how cultural values, environmental conditions, and storytelling practices both shape and are shaped by design. Through field observation, visual mapping, and comparative case studies, students develop a shared vocabulary for reading context before diving into more focused design studies.

No. Of Teaching Hours					Scheme Of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Design Studio/ Construction Studio/Capstone	Lab/ Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	0	2	3	150	150	300	75	75	–	–
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Identify a range of cultural, environmental, and technological factors that can shape design decisions across disciplines.
Analyse	CO2	Recognise and discuss how everyday practices, stories, or climates give rise to diverse spatial and visual forms.
Apply	CO3	Apply observational and documentation methods (e.g., mapping, photography, material sampling) to explore contexts, based on a tutor-defined brief.
Evaluate	CO4	Reflect on how a selected design example responds to its context, considering what works well and what could be different.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	0	2	2	3	0	0	0	1	0	0	No Co-Relation
CO2	2	1	2	2	3	0	0	0	2	0	1	Low Co-Relation
CO3	1	2	2	2	2	0	0	0	2	2	2	Medium Co-Relation
CO4	2	2	3	2	3	0	0	0	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	0	0	2	1	0	No Co-Relation
CO2	3	0	0	2	1	1	Low Co-Relation
CO3	3	2	0	2	3	2	Medium Co-Relation
CO4	3	0	0	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Reading Contexts	CO1	1.1	Understand	Establish a common language for noticing place: climate, topography, social rhythms and symbolic markers.	Lecture, Fieldwork, Class Exercise	**10**
		1.2	Understand	Introduce basic historical sources (myth, map, material remain, photograph) that reveal how contexts are recorded and remembered.	Lecture, Workshop, Research	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Culture & World-Making	CO2	2.1	Analyse	Explore how beliefs, rituals and everyday practices have shaped artefacts and settlements over time.	Seminar, Lecture, Class Exercise	9
		2.2	Analyse	Emphasise comparative perspectives so students see multiple cultural logics rather than a single canon.	Lecture, Seminar, Self-directed Study	
3. Material & Craft Lineages	CO3	3.1	Apply	Trace the historical relationships between locally available resources, craft knowledge, and environmental conditions.	Fieldwork, Lecture, Workshop	8
	CO3	3.2	Apply	Highlight how shifts in technology or trade have re-configured these relationships across regions and eras.	Lecture, Research, Studio	
4. Bodies, Tools & Use	CO4	4.1	Evaluate	Examine how artefacts, buildings and interfaces encode assumptions about the human body, labour, gender and accessibility.	Lecture, Seminar, Workshop	**9**
		4.2	Evaluate	Encourage students to recognise these assumptions as historically contingent rather than universal.	Seminar, Class Exercise, Self-directed Study	
5. Story-Mapping Places	CO4	5.1	Evaluate	Invite students to assemble layered narratives—ecological, economic, digital, mythical—that situate contemporary design questions within longer histories of change and continuity.	Studio, Seminar, Research, Fieldwork	**9**

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Reading Contexts	Assignment Review, Quiz, Seminar, Written Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	**25**
2. Culture & World-Making	Assignment Review, Quiz, Seminar, Written Assignment Review	9	30	Review (Portfolio/Digital Portfolio/ Report)	**30**
3. Material & Craft Lineages	Assignment Review, Quiz, Seminar, Written Assignment Review	8	25	Review (Portfolio/Digital Portfolio/ Report)	**30**
4. Bodies, Tools & Use	Assignment Review, Quiz, Seminar, Written Assignment Review	9	35	Review (Portfolio/Digital Portfolio/ Report)	**35**
5. Story-Mapping Places	Assignment Review, Quiz, Seminar, Written Assignment Review	9	30	Review (Portfolio/Digital Portfolio/ Report)	**30**

REFERENCES

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6. Lynch, Kevin. The Image of the City. MIT Press, 1960.
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11. Rapoport, Amos. House Form and Culture. Prentice-Hall, 1969.
12. Tilley, Christopher (ed.). Handbook of Material Culture. SAGE, 2006.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 01

COMPUTATIONAL TOOLS 1

COURSE CODE: 25BAR104
CREDITS: 02

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	–

COURSE DESCRIPTION
This course introduces students to essential digital tools used in architectural design workflows. It focuses on developing core skills in 2D drafting using CAD software and 3D modelling using visualization tools, while also offering hands-on experience in basic digital fabrication. Students will learn proper file management and digital organization practices essential for architectural production and prototyping.

No. Of Teaching Hours					Scheme Of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab/ Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	0	0	2	2	100	100	200	50	50	–	–
Per semester	0	0	30	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyse	CO1	Draft clear 2D drawings (plans, sections) using CAD software with accuracy and systematic file organization.
Understand	CO2	Create 3D architectural models from 2D inputs using modelling tools, exploring spatial form and massing.
Analyse	CO3	Develop visual presentation skills by producing design layouts, diagrams, and portfolios using graphic editing and publishing tools.
Analyse	CO4	Generate fabrication-ready files and apply laser cutting techniques, understanding materials, scale, and assembly principles.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	0	3	2	0	1	3	2	0	0	2	0	No Co-Relation
CO2	0	3	2	0	0	2	2	0	0	3	1	Low Co-Relation
CO3	0	2	2	0	0	1	3	0	2	2	2	Medium Co-Relation
CO4	0	2	2	0	0	3	2	0	1	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	0	3	2	0	2	0	No Co-Relation
CO2	1	3	3	0	2	1	Low Co-Relation
CO3	0	3	3	2	3	2	Medium Co-Relation
CO4	1	3	3	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Digital File Management & Workflow	CO2	1.1	Understand	Understand best practices for organizing digital work.	Class Exercise	4
	CO1	1.2	Remember	Focus on folder structures, naming conventions, and file formats.	Class Exercise	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Visual Composition & Presentation	CO1	2.1	Apply	Develop graphic representation skills using image editing tools (e.g., Photoshop).	Class Exercise	4
	CO3	2.2	Create	Learn layout and publishing skills for diagrams and portfolios (e.g., InDesign).	Class Exercise	
3. 2D Drafting with CAD Tools	CO1	3.1	Understand	Learn core drawing commands, layers, object snaps, and annotations.	Workshop	8
		3.2	Apply	Produce clean and accurate architectural drawings (plans, sections, elevations).	Workshop	
4. 3D Modelling with Visualization Tools	CO1	4.1	Apply	Translate 2D designs into 3D space using digital modelling platforms (e.g., Sketch Up, Blender).	Workshop	8
		4.2	Apply	Practice early-stage design massing, space-making, and understanding plan-to-volume relationships.	Workshop	
5. Digital-to-Physical Prototyping	CO1	5.1	Apply	Prepare digital files for fabrication and export 2D cut files from 3D models.	Workshop	6
	CO4	5.2	Apply	Operate laser cutting machines; understand material properties, scaling, and assembly techniques.	Workshop	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Digital File Management & Workflow	Assignment Review	4	10	Review (Portfolio/Digital Portfolio/ Report)	10
2. Visual Composition & Presentation	Jury	4	10	Review (Portfolio/Digital Portfolio/ Report)	10
3. 2D Drafting with CAD Tools	Assignment Review	8	30	Review (Portfolio/Digital Portfolio/ Report)	30
4. 3D Modelling with Visualization Tools	Jury	8	40	Review (Portfolio/Digital Portfolio/ Report)	40
5. Digital-to-Physical Prototyping	Jury	6	10	Review (Portfolio/Digital Portfolio/ Report)	10

REFERENCES

1. Ching, Francis D.K. (2014). Architectural Graphics (6th ed.). John Wiley & Sons.
2. Online tutorials and documentation for CAD tools (e.g., AutoCAD, Blender).
3. Official learning platforms for modelling tools (e.g., SketchUp Learn Portal, Blender manual**).**

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 01

DESIGN FUNDAMENTALS 1

COURSE CODE: 25BAR105
CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION
This course introduces foundational ideas that shape how we think about design—what it is, how it works, and why it matters. Through short readings, discussions, and observational exercises, students explore key concepts such as visual perception, meaning-making, sensory experience, and design intention. The course helps build a shared vocabulary and critical lens for engaging with design across disciplines.

NO. OF TEACHING HOURS					SCHEME OF EXAMINATION						
Hours	Lecture	Design Studio/ Construction Studio/Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
					CIE	SEE	Total Marks	Review		Written	
								Int.	Ext.	Marks	Duration of Exam
Per week	1	0	2	3	150	150	300	75	75	–	–
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Recognize how different disciplines and cultures define design as both process and proposition.
Understand	CO2	Describe key perceptual and aesthetic principles that inform visual, spatial, and material composition.
Analyse	CO3	Interpret how meaning is encoded in designed forms, drawing on semiotics, symbolism, and cultural reference.
Evaluate	CO4	Reflect on the sensory, ethical, and contextual dimensions of design, and articulate the intentions behind basic design choices.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	2	2	2	1	1	0	1	0	2	2	0	No Co-Relation
CO2	1	3	2	1	1	0	1	0	2	2	1	Low Co-Relation
CO3	2	2	3	1	3	0	2	0	2	1	2	Medium Co-Relation
CO4	3	2	3	2	2	0	2	0	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	1	1	2	2	0	No Co-Relation
CO2	1	2	1	2	2	1	Low Co-Relation
CO3	1	1	1	3	2	2	Medium Co-Relation
CO4	2	1	1	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. What is Design?	CO1	1.1	Understand	Recognize design as both process and proposition across disciplines and cultures.	Lecture, Class Exercise	9
		1.2	Understand	Compare and describe how design functions as utility, system, message, or aesthetic.	Class Exercise, Seminar	
		1.3	Understand	Identify and interpret examples of everyday design in local contexts to understand how design is embedded in daily life.	Research, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Elements, Gestalts & Aesthetics	CO2	2.1	Understand	Identify and describe core visual elements—line, shape, colour, rhythm, balance—in design composition.	Lecture, Class Exercise	10
		2.2	Apply	Apply Gestalt principles to Analyse visual perception and spatial organization.	Lecture, Class Exercise	
		2.3	Understand	Compare aesthetic traditions across cultures, including indigenous and craft-based practices.	Research, Seminar	
		2.4	Analyse	Analyse how visual stimuli are perceived and organized across contexts.	Fieldwork, Class Exercise	
3. Signs, Symbols, and Meaning	CO3	3.1	Understand	Explain the structure of signs and symbols using basic semiotic theory.	Lecture, Class Exercise	9
		3.2	Analyse	Interpret how metaphor, reference, and symbolism are conveyed in design.	Lecture, Seminar	
		3.3	Analyse	Decode meaning in vernacular artefacts, packaging, and media by examining cultural references.	Fieldwork, Seminar	
4. Building Systems and Electrical Systems in Buildings	CO4	4.1	Understand	Describe how human scale, posture, and movement inform spatial engagement.	Lecture, Class Exercise	8
		4.2	Understand	Compare global and South Asian approaches to sensory immersion in design.	Research, Seminar	
		4.3	Analyse	Analyse how elements like light, sound, and texture shape spatial and sensory experience.	Research, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Systems and Intentions	CO4	5.1	Understand	Discuss how design responds to social, ethical, ecological, and technological systems.	Class Exercise, Seminar	9
		5.2	Evaluate	Reflect on how design decisions are shaped by intent and stakeholder needs.	Class Exercise, Seminar	
		5.3	Evaluate	Analyse local case studies to evaluate how design expresses values and has real-world consequences.	Fieldwork, Seminar	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. What is Design?	Assignment Review, Quiz, Seminar, Written Assignment Review	9	25	Review (Portfolio/Digital Portfolio/ Report)	25
2. Elements, Gestalts & Aesthetics	Assignment Review, Quiz, Seminar, Written Assignment Review	10	35	Review (Portfolio/Digital Portfolio/ Report)	35
3. Signs, Symbols, and Meaning	Assignment Review, Quiz, Seminar, Written Assignment Review	9	30	Review (Portfolio/Digital Portfolio/ Report)	30
4. Building Systems and Electrical Systems in Buildings	Assignment Review, Quiz, Seminar, Written Assignment Review	8	30	Review (Portfolio/Digital Portfolio/ Report)	30
5. Systems and Intentions	Assignment Review, Quiz, Seminar, Written Assignment Review	9	30	Review (Portfolio/Digital Portfolio/ Report)	30

REFERENCES

1. Alexander, Christopher. A Pattern Language: Towns, Buildings, Construction. New York: Oxford University Press, 1977
2. Auroville Earth Institute. Earth and Us: A Beginner's Guide to Sustainable Building. Auroville, 2015.
3. Ching, Francis D.K. Architecture: Form, Space, and Order. 4th ed. Hoboken, NJ: Wiley, 2014.
4. Correa, Charles. A Place in the Shade: The New Landscape and Other Essays. New Delhi: Penguin India, 2010.
5. Dondis, Donis A. A Primer of Visual Literacy. Cambridge, MA: MIT Press, 1973.
6. Itten, Johannes. The Elements of Color. New York: Wiley, 1970.
7. Kalbag, Bharat, and the Vikas Centre for Development. Design Source Book for Planning and Architecture in India. Pune: Vikas Centre, 2002.
8. Pallasmaa, Juhani. The Eyes of the Skin: Architecture and the Senses. Chichester: Wiley, 2005.
9. Pandya, Yatin. Elements of Space Making. Ahmedabad: Mapin Publishing, 2007.
10. Papanek, Victor. Design for the Real World: Human Ecology and Social Change. London: Thames and Hudson, 1985.
11. Prasad, Rohit. Sustainable Design in the Indian Context. New Delhi: TERI Press, 2013.
12. Unwin, Simon. Analysing Architecture. 4th ed. London: Routledge, 2014.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 01

GRAPHICS 1

COURSE CODE: 25BAR106

CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION

"The primary focus is to introduce students to drawing as a vital form of observation, reflection, and design thinking. It positions drawing not merely as a technical skill but as a way of seeing, understanding, and engaging with the world. Drawing is approached as both an embodied, perceptual act and a rigorous analytical tool, cultivating the ability to synthesize the visible and the imagined, the real and the conceptual.

The course begins with a Freehand Drawing module, which explores drawing as an intuitive and perceptual practice. Through gesture, contour, and memory-based exercises, students learn to observe space, structure, and form with attentiveness and immediacy. Emphasis is placed on drawing as a daily habit, a way to sharpen the senses, and a tool to access the essence and character of built and natural forms.

The course then extends into drawing as a technical discipline, introducing conventions of technical representation that cultivate precision, spatial reasoning, and analytical thinking. Through measured drawings of Objects & elements, students engage with the conventions of representation—including plans, sections, and elevations—while developing an acute sensitivity to proportion, scale, and spatial relationships. Emphasizing careful observation and analytical thinking, students will document real-world objects and built form elements with precision and clarity. The unit fosters an understanding of drawing not only as a means of representation, but as a process that integrates constructional logic, material awareness, and spatial reasoning.

Module 1: Freehand Drawing explores drawing as an intuitive and perceptual practice. Through gesture, contour, and memory-based exercises, students learn to observe space, structure, and form with attentiveness and immediacy. Emphasis is placed on drawing as a daily habit, a way to sharpen the senses, and a tool to access the essence and character of built and natural forms.

Module 2: Technical Drawing introduces students to measured drawing as both a technical and interpretive process. Students learn the conventions of technical representation—plans, sections, and elevations, orthographic projections, and axonometric—while engaging in the careful observation, recording, and analysis of real-world objects and built form elements from macro to micro scale. This unit encourages precision, care, and spatial clarity, integrating drawing with constructional thinking and material awareness.

No. Of Teaching Hours					Scheme Of Examination						
Hours	Lecture	Design Studio/ Construction Studio/Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
								Review		Written	
					CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	2	0	3	150	150	300	50	50	50	2 hours
Per semester	15	30	0	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Demonstrate the ability to use drawing as a perceptual and reflective practice to observe, interpret, and engage with the built and natural environment.
Understand	CO2	Develop a disciplined drawing habit that sharpens sensory perception and fosters intuitive design thinking.
Apply	CO3	Apply freehand drawing techniques—including gesture, contour, and memory drawing—to develop attentiveness, immediacy, and spatial awareness.
Create	CO4	Document and execute precise measured drawings of Objects & Built form elements, demonstrating clarity in representation, constructional logic, and material awareness through plans, sections, and elevations.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	Levels of Relation:	
CO1	1	0	2	0	2	0	3	0	3	1	0	No Co-Relation
CO2	0	3	2	0	1	0	2	0	3	2	1	Low Co-Relation
CO3	0	3	3	2	2	2	0	0	2	2	2	Medium Co-Relation
CO4	0	3	2	3	2	3	1	2	1	1	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	3	0	3	3	0	No Co-Relation
CO2	1	3	2	2	3	1	Low Co-Relation
CO3	3	3	1	2	3	2	Medium Co-Relation
CO4	3	3	2	2	2	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Freehand Drawing	CO2	1.1	Understand	Introduction to Freehand Drawing: Purpose and philosophy of perceptual drawing; drawing as habit and sensory sharpening	Class Exercise, Lecture	**25**
	CO3	1.2	Analyse	Gesture Drawing: Exploring movement, rhythm, and spontaneity in spatial observation	Class Exercise, Self-directed Study, Studio	
	CO1	1.3	Apply	Contour Drawing: Focused observation and line discipline to capture form and structure	Self-directed Study, Class Exercise	
	CO2	1.4	Analyse	Memory Drawing: Recalling spatial experience through drawing to enhance perceptual engagement	Self-directed Study, Class Exercise	
	CO1	1.5	Apply	Field Sketching Practice: Observational drawing from life to capture context and atmosphere	Fieldwork	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Technical Drawing	CO1	2.1	Analyse	Introduction to Technical Drawing: Importance of accuracy and clarity; drawing as spatial analysis tool	Lecture, Studio	**20**
		2.2	Analyse	Drawing Conventions: Plans, sections, elevations; line types, scale, symbols, and annotations	Self-directed Study, Studio	
	CO4	2.3	Analyse	Orthographic Projection: Constructing multi-view drawings; visualizing objects from different angles	Self-directed Study, Studio	
		2.4	Analyse	Measured Drawing Techniques: Field measurement methods; documenting built forms accurately	Research, Studio, Fieldwork	
		2.5	Apply	Macro to Micro Observation: Representing objects from whole to detail; integrating material and joinery logic	Research, Studio	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Freehand Drawing	Assignment Review, Jury	25	50	Written Exam	50
2. Technical Drawing	Jury, Time Problem, Assignment Review	20	100	Review (Portfolio/Digital Portfolio/ Report)	100

REFERENCES

1. Arnheim, Rudolf. Art and Visual Perception: A Psychology of the Creative Eye. University of California Press, 1974.
2. Nicolaïdes, Kimon. The Natural Way to Draw: A Working Plan for Art Study. Houghton Mifflin, 1941.
3. Macaulay, David. The Way Things Work. Houghton Mifflin, 1988.
4. Kepes, György. The New Landscape in Art and Science. Paul Theobald, 1956.
5. Delaney, Miriam, and Anne Gorman. Studio Craft & Technique for Architects. Laurence King Publishing, 2015.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 01

MECHANICS OF MAKING

COURSE CODE: 25BAR107
CREDITS: 03

Type of Course:	**Building Sciences and Applied Engineering (BS and AE)**
Prerequisites:	–

COURSE DESCRIPTION
This integrated foundation course introduces students to the fundamental understanding of materials and structural principles relevant to architecture. The course is designed to bridge material knowledge, applied science, and hands-on making, fostering a comprehensive awareness of how buildings and structures are conceived, composed, and constructed

No. Of Teaching Hours					**Scheme Of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Design Studio/ Construction Studio/Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	2	0	3	150	150	300	50	50	50	2 hours
Per semester	15	30	0	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Remember	CO1	Identify and Analyse the properties, classifications, and applications of natural, processed, and modern materials
Understand	CO2	Apply basic principles of applied mechanics and structural behavior to structural elements
Apply	CO3	Demonstrate hands-on proficiency in working with various materials through workshop-based activities
Analyse	CO4	Integrate theoretical knowledge and practical insights to design, document, and reflect on material-based interventions

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	0	1	3	1	1	3	2	1	1	1	0	No Co-Relation
CO2	0	2	3	1	0	3	2	0	1	0	1	Low Co-Relation
CO3	1	2	3	1	0	2	2	0	0	0	2	Medium Co-Relation
CO4	1	3	3	1	0	2	2	1	1	1	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	3	1	1	1	0	No Co-Relation
CO2	1	2	0	0	1	1	Low Co-Relation
CO3	0	3	1	1	2	2	Medium Co-Relation
CO4	1	2	1	1	2	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Materials and Making	CO2	1.1	Understand	Understanding raw materials - Natural and processed materials, Locally available materials - Vernacular materials, regional construction practices.	Lecture	18
	CO1	1.2	Remember	Introduction to modern materials - Plastics, composites, smart materials	Workshop	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Materials and Making		1.3	Remember	Overview of metallic materials - Steel, aluminium, and their architectural use	Lecture	
	CO2	1.4	Understand	Materials and embodied energy - Sustainability and energy considerations	Lecture	
	CO3	1.5	Apply	Workshop-based hands-on exercises/ Industrial visits - Material handling, joinery, basic tool usage, Small-scale prototyping and construction techniques	Workshop	
2. Force Systems	CO2	2.1	Understand	Basics of Applied Sciences relevant to structures, Introduction to Applied Mechanics, Understanding of force, motion, and equilibrium.	Lecture	3
		2.2	Understand	Types of forces and force systems - Coplanar & Non-coplanar, Collinear, Concurrent, and Parallel, Non-concurrent & Non-parallel systems	Workshop	
3.Structural Principles	CO2	3.1	Understand	Fundamental concepts - Equilibrium, Stability, Strength.	Lecture	3
		3.2	Understand	Basic stress states in materials - Tension, Compression, Bending, Shear, Torsion.	Lecture	
4. Strength of Materials	CO2	4.1	Understand	Material behavior under different stress states, Properties of materials: Elasticity, plasticity, toughness, ductility.	Fieldwork	3
		4.2	Understand	Associated Moduli :Young's modulus, Rigidity modulus, Bulk Modulus, Poisson's Ratio. Structural performance and selection criteria for architectural applications	Research	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Workshop & Hands-on Integration	CO3	5.1	Apply	Practical sessions aligning with theory: Joinery, construction, assembly scaled models or elements using different materials.	Workshop	18
	CO4	5.2	Analyse	Exercises to visualize force systems and structural behaviour.	Workshop	
	CO3	5.3	Apply	Reflection and documentation of material experiments, Example: shelter or span model, functional product or material prototype, public material intervention, group based reflection and presentations.	Fieldwork	
		5.4	Apply	Hands-on: Raw materials, available materials (metals, plastics, vernacular materials, embodied energy, modern materials), and Properties and applications of materials	Workshop	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Materials and Making	Assignment Review	18	30	Review (Portfolio/Digital Portfolio/ Report)	50
2. Force Systems	Assignment Review	3	30	Written Exam	10
3. Structural Principles	Assignment Review	3	30	Written Exam	20
4. Strength of Materials	Assignment Review	3	30	Written Exam	20
5. Workshop & Hands-on Integration	Assignment Review	18	30	Review (Portfolio/Digital Portfolio/ Report)	50

REFERENCES

1. Francis D.K. Ching & Mark Jarzombek, Building Structures Illustrated: Patterns, Systems, and Design, Wiley, 2014.
2. K.S. Jagadish, Alternative Building Materials and Technologies, New Age International, 2006.
3. J.E. Gordon, Structures: Or Why Things Don't Fall Down, Da Capo Press, 2003.
4. Stephen P. Timoshenko, Strength of Materials, CBS Publishers, 2010.
5. R.C. Hibbeler, Engineering Mechanics: Statics & Dynamics, Pearson, latest edition.
6. S. K. Hajra Choudhury & A. K. Hajra Choudhury, Elements of Workshop Technology, Media Promoters & Publishers, 2017.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 01

CREATIVE EXPRESSION AND COMMUNICATION

COURSE CODE: 25BAR108

CREDITS: 03

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	–

COURSE DESCRIPTION
This course introduces students to creative expression as a means of observation, reflection, and communication. Through exercises in color, composition, and visual storytelling, students develop an intuitive and analytical understanding of how visual relationships shape perception and meaning. Alongside, a reflective writing practice encourages students to engage with the world around them—reading texts, recording experiences, and responding to diverse perspectives. The course blends making and writing as complementary forms of inquiry, fostering both personal voice and critical awareness.

No. Of Teaching Hours					Scheme Of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Design Studio/ Construction Studio/Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	1	0	2	100	100	200	50	50	–	–
Per semester	15	15	0	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Create	CO1	Demonstrate the ability to explore visual relationships through hands-on exercises in composition and perception.
Communicate	CO2	Develop skills in visual storytelling and communication by creating sequential narratives that convey spatial, emotional, or conceptual ideas.
Analyse	CO3	Engage in reflective writing practices to connect readings, observations, and lived experience with critical thought.
Apply	CO4	Respond critically and creatively to diverse perspectives, fostering empathy and cultural awareness.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	0	3	2	1	1	0	2	0	2	2	0	No Co-Relation
CO2	1	2	2	0	2	0	3	0	2	2	1	Low Co-Relation
CO3	2	1	3	0	1	0	2	0	3	2	2	Medium Co-Relation
CO4	3	1	2	1	3	0	2	0	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	3	1	0	3	0	No Co-Relation
CO2	0	2	2	1	2	1	Low Co-Relation
CO3	0	1	2	2	2	2	Medium Co-Relation
CO4	1	1	2	3	2	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
Module 1: Creative Expression	CO1	1.1	Analyse	Color and Perception: Explore the relational nature of color through exercises on contrast, harmony, and interaction.	Class Exercise	6
		1.2	Apply	Visual Studies: Explore light, shadow, and visual traditions through observational and expressive media.	Class Exercise	6

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
Module 1: Creative Expression	CO2	1.3	Analyse	Spatial Composition and Abstraction: Learn the fundamentals of visual structure through minimal means—working with rhythm, balance, scale, and abstract representation of space and movement.	Class Exercise	6
		1.4	Apply	Visual Communication: Create sequential visual narratives and graphic compositions that communicate spatial and emotional ideas.	Class Exercise	4
Module 2: Creative Writing	CO3	2.1	Analyse	Reading the World, Reading the Self: Students engage in guided individual readings and journaling practices to develop critical thinking, personal reflection, and a habit of connecting theory to lived experience.	Self-directed Study	4
	CO4	2.2	Analyse	a. Conversations: Interactions with visiting artists, designers, and activists prompt students to respond through creative journaling, expanding their perspectives and deepening critical engagement.	Self-directed Study	4

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
Module 1: Creative Expression	Assignment Review	22	60	Review (Portfolio/Digital Portfolio/ Report)	60
Module 2: Creative Writing	Assignment Review	8	40	Review (Portfolio/Digital Portfolio/ Report)	40

REFERENCES

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Semester 02 (Track-Wise)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR201	Foundation Studio 2	8	1	3	4	8	400	400	800	200	200	-	-
25BAR202	Technology and Systems	3	1	2	0	3	150	150	300	50	50	50	2 hours
25BAR203	History and Context 2	3	1	0	2	3	150	150	300	75	75	-	-
25BAR204	Computational Tools 2	2	0	0	2	2	100	100	200	50	50	-	-
25BAR205	Design Fundamentals 2	3	1	0	2	3	150	150	300	75	75	-	-
25BAR206	Graphics 2	3	1	2	0	3	150	150	300	50	50	50*	2 hours
25BAR207	Survey	2	0	0	2	2	100	100	200	50	50	-	-
25BAR YY EX	Cross-disciplinary Elective	2	-	-	-	2	100	100	200	50	50	-	-
Total		**26**											

Level 1 (Common Foundation)

Semester 02

FOUNDATION STUDIO 2

COURSE CODE: 25BAR201

CREDITS: 08

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION
This studio builds upon foundational explorations of form and material by introducing students to the architecture of use. It moves beyond abstract spatial exercises toward grounded, user-responsive design. Through the design of small-scale, inhabitable environments, students explore how space is shaped by human behavior, cultural patterns, and environmental context. Emphasis is placed on understanding the logics of daily life—how people gather, transition, rest, and move. Students develop spatial fluency through iterative model–drawing processes and begin articulating design premises that unify concept, use, and form. The studio cultivates an emerging architectural language that balances intuition with analysis, and form-making with inhabitation.

No. Of Teaching Hours					**Scheme Of Examination**						
Hours	**Lecture**	**Design Studio/ Construction Studio/Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	3	4	8	400	400	800	200	200	–	–
Per semester	15	45	60	120							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyse	CO1	Demonstrate the ability to design inhabitable spaces that respond to basic human needs, ergonomic principles, and patterns of everyday life.
Understand	CO2	Explore material and spatial possibilities through hands-on making, testing how enclosure, adjacency, and scale can shape diverse user experiences.
Analyse	CO3	Cultivate an iterative design process grounded in curiosity—moving fluidly between physical models, drawings, and sketches to refine spatial understanding.
Analyse	CO4	Formulate and evolve architectural ideas that emerge from context, observation, and user engagement—rather than fixed typologies or formal preconceptions.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	3	2	2	1	2	1	0	2	1	0	No Co-Relation
CO2	1	2	1	2	1	2	1	0	2	2	1	Low Co-Relation
CO3	1	2	2	1	0	1	1	0	3	2	2	Medium Co-Relation
CO4	2	2	3	2	2	1	2	0	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	2	1	2	2	0	No Co-Relation
CO2	3	3	1	1	3	1	Low Co-Relation
CO3	2	3	1	1	3	2	Medium Co-Relation
CO4	2	2	2	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Making	CO2	1.1	Understand	Construct spatial prototypes using enclosure, adjacency, and circulation as design drivers.	Studio, Class Exercise, Workshop	25
		1.2	Understand	Explore how material, form, and spatial sequences shape user experience at a small inhabitable scale.	Studio, Class Exercise, Workshop	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Sensing	CO1	2.1	Analyse	Analyse human posture, reach, and movement using ergonomic diagrams and spatial inserts.	Fieldwork, Studio, Seminar	**15**
		2.2	Evaluate	Evaluate the sensory qualities of materials through physical tests and embodied observation.	Fieldwork, Studio, Seminar	
3. Observing	CO4	3.1	Analyse	Conduct site-based or photographic observation of everyday activities and domestic patterns.	Fieldwork, Studio, Seminar	**20**
		3.2	Apply	Map spatial routines — how people gather, transition, rest, and move in shared spaces.	Fieldwork, Studio, Seminar	
4. Iterating	CO3	4.1	Create	Develop form–space relationships using model iterations at different scales.	Studio, Workshop, Self-directed Study	**30**
		4.2	Evaluate	Alternate between drawing (plans, sections) and modeling to test spatial relationships and refine intent.	Studio, Workshop, Self-directed Study	
5. Conceptualising	CO4	5.1	Create	Frame a clear spatial concept that responds to user behavior, material logic, and spatial context.	Studio, Workshop, Self-directed Study	**30**
		5.2	Create	Refine the conceptual intent and translate it into final spatial resolution using drawing-model synthesis.	Studio, Workshop, Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Making	Assignment Review, Time Problem, Jury	25	80	Review (Portfolio/Digital Portfolio/ Report)	50
2. Sensing	Assignment Review, Seminar, Time Problem, Jury	15	40	Review (Portfolio/Digital Portfolio/ Report)	30

Module	CIE			SEE	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
3. Observing	Assignment Review, Seminar, Time Problem, Jury	20	70	Review (Portfolio/Digital Portfolio/ Report)	60
4. Iterating	Assignment Review, Time Problem, Jury	30	100	Review (Portfolio/Digital Portfolio/ Report)	130
5.Conceptualising	Assignment Review, Time Problem, Jury	30	110	Review (Portfolio/Digital Portfolio/ Report)	130

REFERENCES

1. Banham, Reyner. The Architecture of the Well-Tempered Environment. Kent: Elsevier Science, 2014
2. Banham, Reyner. Theory and Design in the First Machine Age. Oxford: Architectural Press, 2002.
3. Clark, Roger H., and Michael Pause. Precedents in Architecture: Analytic Diagrams, Formative Ideas, and Partis. 4th ed., Wiley, 2012.
4. Indira Gandhi National Centre for the Arts. Space and the Act of Space. New Delhi: Rabindra Bhavan, 1986.
5. Jain, Kulbhushan. Thematic Space in Indian Architecture. AADI Centre, 2002.
6. Pandya, Yatin. Concepts of Space in Traditional Indian Architecture. Ahmedabad: Mapin Publishing, 2013.
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10. Unwin, Simon. Analysing Architecture. 5th ed., Routledge, 2020.
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Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 02

TECHNOLOGY AND SYSTEMS

COURSE CODE: 25BAR202
CREDITS: 03

Type of Course:	**Building Sciences and Applied Engineering (BS and AE)**
Prerequisites:	–

COURSE DESCRIPTION
This course provides a dual foundation in the fundamental principles of strength of materials and environmentally responsive design—two critical aspects of architectural education that inform both structural integrity and climatic comfort in buildings.

No. Of Teaching Hours					**Scheme Of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	1	1	3	150	150	300	50	50	50	2 Hours
Per semester	15	15	15	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Demonstrate an understanding of the mechanical behavior of materials under different loading conditions.
Analyse	CO2	Analyse internal forces and structural responses in basic structural elements
Apply	CO3	Apply environmental data and climatic principles to passive design strategies

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	0	1	3	0	0	3	2	1	2	1	0	No co relation
CO2	0	2	3	0	0	3	1	1	1	1	1	Low Co-Relation
CO3	3	3	2	3	1	2	1	1	2	2	2	Medium Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	0	1	3	0	2	0	No co relation
CO2	0	1	1	0	1	1	Low Co-Relation
CO3	3	1	1	1	2	2	Medium Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Basic Concepts	CO1	1.1	Understand	Basic Concepts of Strength of Materials and Section Geometry: Introduction to Strength of Materials: Stress, strain, elasticity, Hooke's Law, modulus of elasticity, stress-strain curves.	Class Exercise, Lecture	**12**
		1.2	Understand	Simple Stresses and Strains: Axial loading, types of stresses (normal, shear), Poisson's ratio, volumetric strain.	Class Exercise, Lecture	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Basic Concepts	CO1	1.3	Understand	Geometrical Properties of Sections: Centroid, Moment of Inertia, Polar Moment of Inertia – applications in beams and columns	Class Exercise, Lecture	
2. Structural Behaviour	CO2	2.1	Analyse	Structural Behavior of Beams, Columns, and Shafts under Various Loads: Shear Force and Bending Moment: Understanding internal forces, types of beams and loading conditions, Drawing SFD and BMD for various cases (point loads, UDLs, overhangs),	Class Exercise, Lecture	24
		2.2	Analyse	Theory of Simple Bending: Flexure formula, assumptions, stress distribution in beams, section modulus.	Class Exercise, Lecture	
		2.3	Analyse	Deflection of beams: Concept, slope and deflection, methods of calculation.	Class Exercise, Lecture	
		2.4	Analyse	Columns & struts: Buckling, slenderness ratio, Euler's theory for columns, Short vs long columns.	Class Exercise, Lecture	
		2.5	Analyse	Torsion: Torsion formula, angle of twist, polar moment of inertia, applications	Class Exercise, Lecture	
3. Climate-Responsive Design	CO2	3.1	Apply	Basic Principles of Climate-Responsive Architectural Design: Climate and Weather – Definitions and Global Variations, Introduction to Climatic Data and Its Interpretation in Design	Class Exercise, Lecture	9
		3.2	Apply	Orientation and Building Form for Thermal Comfort, Natural Ventilation and Air Movement in Architecture, Shading and Daylighting for Energy Efficiency	Class Exercise, Lecture	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Basic Concepts	Jury, Assignment Review	12	25	Review (Portfolio/Digital Portfolio/ Report)	25
2. Structural Behaviour	Jury, Assignment Review	24	100	Written Exam	30
				Review (Portfolio/Digital Portfolio/ Report)	60
3. Climate-Responsive Design	Assignment Review, Jury, Written Test	9	25	Written Exam	20
				Review (Portfolio/Digital Portfolio/ Report)	15

REFERENCES

1. "1. Hibbeler, R. C. (2017). Mechanics of materials (10th ed.). Pearson Education."
2. Bansal, R. K. (2010). Strength of materials (5th ed.). Laxmi Publications.
3. Ramamrutham, S. (2013). Strength of materials (18th ed.). Dhanpat Rai Publishing.
4. Timoshenko, S. P., & Gere, J. M. (2002). Mechanics of materials (2nd ed.). CBS Publishers.
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7. Krishan, A., Baker, N., Yannas, S., & Szokolay, S. V. (2001). Climate responsive architecture: A design handbook for energy efficient buildings. Tata McGraw-Hill.
8. Givoni, B. (1998). Climate considerations in building and urban design. John Wiley & Sons.
9. The Energy and Resources Institute (TERI). (2005). Thermal performance of buildings in India. TERI Press.

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Semester 02

HISTORY AND CONTEXT 2

COURSE CODE: 25BAR203
CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION
This course explores how architecture emerges from — and responds to — moments of social, political, and technological change. It introduces histories of reform, labour, resistance, and material practice, foregrounding those often left out of dominant architectural narratives. Students learn to think of history not as a fixed timeline, but as a set of contested, situated, and active processes that shape built form.

No. Of Teaching Hours					Scheme Of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	0	2	3	150	150	300	75	75	—	—
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Identify key moments of architectural and social transformation across cultures and time periods.
Analyse	CO2	Analyse how institutions, labour, and everyday practices have shaped architectural change.
Evaluate	CO3	Interpret visual, material, and oral sources to understand how architecture reflects and reinforces systems of power.
Evaluate	CO4	Develop a critical historical approach to question dominant narratives and foreground alternative voices in architecture.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	2	0	1	0	3	0	1	0	1	0	0	No Co-Relation
CO2	3	1	3	1	3	0	1	0	2	1	1	Low Co-Relation
CO3	3	0	3	1	3	0	2	0	2	1	2	Medium Co-Relation
CO4	3	0	3	1	3	0	2	0	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	0	0	2	0	0	No Co-Relation
CO2	1	1	0	3	2	1	Low Co-Relation
CO3	1	0	0	3	1	2	Medium Co-Relation
CO4	1	0	1	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Architecture and Social Change	CO1	1.1	Understand	Identify how architecture responds to major social, political, and cultural shifts across time and place.	Lecture, Seminar	12
	CO3	1.1	Understand	Explain how built form interacts with or is shaped by systems of power.	Class Exercise, Seminar, Lecture	
	CO2	1.2	Analyse	Interpret how changing values and identities are expressed through architecture.	Class Exercise, Research, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Labour, Craft, and Building Knowledge	CO2	2.1	Understand	Understand the role of labour, skill, and knowledge in shaping architectural production.	Lecture, Fieldwork, Seminar	6
	CO4	2.2	Analyse	Examine how building processes raise questions about authorship, agency, and value.	Seminar, Research, Class Exercise	
3. Institutions and Ideologies	CO2	3.1	Analyse	Examine how architectural forms are shaped by diverse institutions, religious, educational, colonial, civic, and others.	Lecture, Self-directed Study, Class Exercise	12
	CO3	3.2	Evaluate	Interpret how these institutions express specific ideologies and spatial logics.	Seminar, Research, Lecture	
4. Resistance, Adaptation, and	CO4	4.1	Evaluate	Assess how people adapt, subvert, or reinterpret architectural space through everyday practices.	Fieldwork, Seminar, Class Exercise	6
5. Materiality and Transformation	CO1	5.1	Understand	Describe how shifts in material and construction technologies have transformed architecture across time and context.	Lecture, Workshop, Research	9
	CO2	5.2	Analyse	Analyse the relationship between material change and sustainability, innovation, and continuity in architectural practice.	Workshop, Self-directed Study, Seminar	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Architecture and Social Change	Assignment Review, Quiz, Seminar, Written Assignment Review	12	30	Review (Portfolio/Digital Portfolio/ Report)	30
2. Labour, Craft, and Building Knowledge	Assignment Review, Quiz, Seminar, Written Assignment Review	6	20	Review (Portfolio/Digital Portfolio/ Report)	20

Module	CIE			SEE	
	Method of Evaluation	Hours	Marks	Method of Evaluation	Marks
3. Institutions and Ideologies	Assignment Review, Quiz, Seminar, Written Assignment Review	12	35	Review (Portfolio/Digital Portfolio/ Report)	35
4. Resistance, Adaptation, and Everyday Practices	Assignment Review, Quiz, Seminar, Written Assignment Review	6	30	Review (Portfolio/Digital Portfolio/ Report)	30
5. Materiality and Transformation	Assignment Review, Quiz, Seminar, Written Assignment Review	9	35	Review (Portfolio/Digital Portfolio/ Report)	35

REFERENCES

1. Ammar, Nabila. Architecture for the Poor: An Experiment in Rural Egypt. Oxford University Press, 1973.
2. Bhan, Gautam, Ingrid Nyborg, and Vera Schindler-Ruwisch (eds.). Urban Policies and the Right to the City in India. UNESCO, 2017.
3. Chakrabarti, Vibhuti Sachdev, and Giles Tillotson. Building Jaipur: The Making of an Indian City. Reaktion Books, 2002.
4. Chattopadhyay, Swati. Representing Calcutta: Modernity, Nationalism, and the Colonial Uncanny. Routledge, 2005.
5. Dadi, Iftikhar. Modernism and the Art of Muslim South Asia. University of North Carolina Press, 2010.
6. Harvey, David. The Condition of Postmodernity. Blackwell, 1989.
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9. Mehrotra, Rahul. Architecture in India Since 1990. Pictor, 2011.
10. Mitchell, Timothy. Colonising Egypt. University of California Press, 1991.
11. Mumford, Lewis. Technics and Civilization. Harcourt, 1934.
12. Ramaswamy, Sumathi (ed.). Barefoot Across the Nation: Maqbool Fida Husain and the Idea of India. Routledge India, 2010.
13. Sennet, Richard. The Craftsman. Yale University Press, 2008.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 02

COMPUTATIONAL TOOLS 2

COURSE CODE: 25BAR204

CREDITS: 02

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	Basic digital skills

COURSE DESCRIPTION
This course advances students' digital design capabilities with a focus on precision 3D modeling and integrated digital workflows. Students develop complex forms using Rhino (NURBS-based modeling), explore parametric systems through Grasshopper (visual scripting), and experiment with Generative AI tools to ideate and evolve design options. The course culminates in physical prototyping through 3D printing, combining digital and fabrication skills in a hands-on process.

No. Of Teaching Hours					**Scheme Of Examination**						
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	0	0	2	2	100	100	200	50	50	—	—
Per semester	0	0	30	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Create detailed and precise architectural models using advanced CAD tools.
Create	CO2	Apply parametric logic to control geometry and generate variations using visual scripting environments.
Apply	CO3	Use AI-assisted tools to explore rapid design alternatives and concept development.
Apply	CO4	Translate digital models into physical prototypes using 3D printing and post-processing techniques**.**

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	0	3	2	0	0	2	0	0	2	3	0	No co relation
CO2	0	3	3	2	0	2	0	0	2	3	1	Low Co-Relation
CO3	0	2	3	2	0	2	0	0	2	3	2	Medium Co-Relation
CO4	0	2	2	2	0	3	0	0	2	2	4	Medium Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	0	2	3	0	2	0	No co-relation
CO2	2	3	3	2	2	1	Low Co-Relation
CO3	2	2	3	2	2	2	Medium Co-Relation
CO4	2	3	3	2	2	4	Medium Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Advanced 3D Modeling with Rhino	CO2	1.1	Apply	Develop expertise in working with NURBS surfaces, solid tools, layers, blocks, and efficient model organization to shape complex geometries.	Class Exercise	5

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Parametric Design with Grasshopper	CO1	2.1	Understand	Learn visual programming concepts, including parameters, data flow, list and tree structures, to create flexible and dynamic design systems.	Class Exercise	5
3. Generative AI in Design		3.1	Understand	Introduce workflows involving AI tools (e.g., image-to-model, text-to-form) for concept ideation, iteration, and creative exploration.	Workshop	10
4. 3D Printing and Prototyping		4.1	Apply	Translate 2D designs into 3D space using digital modeling platforms (e.g., SketchUp, Blender).	Workshop	10

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Advanced 3D Modeling with Rhino	Assignment Review	5	15	Review (Portfolio/Digital Portfolio/ Report)	15
2. Parametric Design with Grasshopper	Jury	5	15	Review (Portfolio/Digital Portfolio/ Report)	15
3. Generative AI in Design	Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	30
4. 3D Printing and Prototyping	Assignment Review	10	40	Review (Portfolio/Digital Portfolio/ Report)	40

REFERENCES

1. Tedeschi, A. (2014). AAD Algorithms-Aided Design: Parametric Strategies Using Grasshopper.
2. Payne, A. (2015). Grasshopper: Visual Scripting for Rhinoceros 3D.
3. McNeel Rhino 3D Level 1 & 2 User Guides (Rhino3d.com)
4. Rutten, D. Grasshopper 3D Primer and McNeel Discourse community resources.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 02

DESIGN FUNDAMENTALS 2

COURSE CODE: 25BAR205

CREDITS: 03

Type of Course:	**Professional Core Courses (PC)**
Prerequisites:	–

COURSE DESCRIPTION
This course builds on foundational design concepts to explore how space is shaped by cultural knowledge, interdisciplinary methods, and ethical concerns. Through the study of typologies, design processes, and agency, students engage in visual analysis and contextual inquiry. The course culminates in a critical reflection on the civic and environmental responsibilities of architects and designers.

No. Of Teaching Hours					**Scheme Of Examination**						
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	2	3	150	150	300	75	75	—	—
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Identify and describe how different cultural, ecological, and embodied ways of knowing inform spatial practices.
Apply	CO2	Apply foundational design methods and interpretive processes drawn from architecture and other disciplines to explore spatial ideas.
Analyse	CO3	Analyse everyday typologies and spatial patterns to understand how form, culture, and context interact across diverse settings.
Evaluate	CO4	Reflect on the ethical, political, environmental, and civic roles of architects and designers in shaping inclusive and socially responsible spatial practices.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	2	1	2	1	3	0	2	0	2	1	0	No Co-Relation
CO2	1	3	3	1	2	0	2	1	2	2	1	Low Co-Relation
CO3	1	2	2	2	3	0	2	1	2	1	2	Medium Co-Relation
CO4	3	2	2	3	2	0	3	2	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	2	1	2	3	0	No Co-Relation
CO2	0	3	2	1	2	1	Low Co-Relation
CO3	1	2	1	1	2	2	Medium Co-Relation
CO4	1	2	2	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Ways of Knowing	CO1	1.1	Understand	Describe how different cultures and communities construct spatial knowledge through local traditions and lived experience.	Lecture, Fieldwork, Class Exercise	10
		1.2	Understand	Explain how sensory experience and embodied knowledge influence spatial perception and design thinking.	Seminar, Class Exercise	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Ways of Knowing	CO1	1.3	Understand	Identify key ecological and land-based strategies for understanding terrain, climate, and seasonal design responses.	Lecture, Research	
2. Design Methods	CO2	2.1	Apply	Apply fundamental design methods (e.g., sketching, diagramming) to explore spatial ideas.	Class Exercise, Workshop	9
		2.2	Understand	Compare spatial design approaches across disciplines like film, craft, or performance.	Seminar, Research	
		2.3	Evaluate	Evaluate how interdisciplinary practices can expand architectural thinking and challenge conventional methods.	Lecture, Seminar, Self-directed Study	
3. Typologies and Patterns	CO3	3.1	Understand	Describe common spatial typologies and how they support everyday life patterns.	Lecture, Class Exercise	10
		3.2	Analyse	Analyse how movement, use, and climate shape spatial patterns across contexts.	Fieldwork, Research	
		3.3	Understand	Interpret different spatial organization systems (grid, axial, etc.) using case examples.	Lecture, Seminar	
4. Design Agency	CO4	4.1	Understand	Explain the dynamics between designer, user, and community, highlighting authorship and representation.	Seminar, Class Exercise	8
		4.2	Evaluate	Evaluate ethical dimensions of inclusion, sustainability, and access in design processes.	Seminar, Research	
		4.3	Analyse	Analyse case studies to understand how design is shaped by political, cultural, and institutional forces.	Seminar, Class Exercise, Research	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Architecture and Responsibility	CO4	5.1	Evaluate	Evaluate the societal responsibilities of architects through critical reflection on case studies.	Seminar, Research	**8**

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	**Marks**
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	
1. Ways of Knowing	Assignment Review, Quiz, Seminar, Written Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	20
2. Design Methods	Assignment Review, Quiz, Seminar, Written Assignment Review	9	25	Review (Portfolio/Digital Portfolio/ Report)	30
3. Typologies and Patterns	Assignment Review, Quiz, Seminar, Written Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	35
4. Design Agency	Assignment Review, Quiz, Seminar, Written Assignment Review	8	35	Review (Portfolio/Digital Portfolio/ Report)	35
5. Architecture and Responsibility	Assignment Review, Quiz, Seminar, Written Assignment Review	8	30	Review (Portfolio/Digital Portfolio/ Report)	30

REFERENCES

1. Alexander, Christopher, Sara Ishikawa, and Murray Silverstein. A Pattern Language: Towns, Buildings, Construction. New York: Oxford University Press, 1977.
2. bell hooks. Teaching to Transgress: Education as the Practice of Freedom. New York: Routledge, 1994.
3. Correa, Charles. A Place in the Shade: The New Landscape and Other Essays. Ahmedabad: Mapin Publishing, 2012.
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5. Harriss, Harriet, Rory Hyde, and Roberta Marcaccio, eds. Architects After Architecture: Alternative Pathways for Practice. London: Routledge, 2020.

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7. Pandya, Yatin. Elements of Space Making. Ahmedabad: Mapin Publishing, 2007.
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10. Rendell, Jane. Art and Architecture: A Place Between. London: I.B. Tauris, 2006.
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Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 02

GRAPHICS 2

COURSE CODE: 25BAR206

CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	Graphics-1

COURSE DESCRIPTION

This course positions architectural drawing as a fundamental mode of inquiry, imagination, and communication. Building upon foundational skills developed in the first semester, it introduces students to more complex aspects of architectural representation and thinking. It deepens the student's engagement with drawing as a medium to decode, construct, and communicate architectural systems and spatial ideas.

Students will engage with multiple representational techniques—orthographic projections, axonometric drawings, sectional perspectives, and hybrid formats—to deepen their understanding of how architecture is assembled, experienced, and conveyed.

The course is structured around the belief that drawing is not merely a representational act but a reflective and investigative process. Emphasis is placed on architectural drawing as a critical thinking tool—to Analyse how buildings are made, how space is experienced, and how structure, material, and light interact. Students will engage with case studies, site-specific analysis, and interpretive drawing exercises to explore context, use, and construction.

By the end of the course, students will develop fluency in architectural conventions while expanding their capacity to draw architecture not only as it is, but as it might be—speculative, analytical, and experiential. The course fosters precision, imagination, and spatial literacy, positioning drawing as central to architectural practice and inquiry

No. Of Teaching Hours					Scheme Of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	2	0	3	150	150	300	50	50	50*	2 hours
Per semester	15	30	0	45							

*** Lab Evaluation**

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Demonstrate proficiency in advanced architectural drawing techniques—including orthographic projections, axonometric drawings, and sectional perspectives—to accurately represent architectural elements, assemblies, and spatial configurations.
Analyse	CO2	Analyse architectural systems—such as structure, circulation, material articulation, and spatial organization—through layered drawing techniques, diagramming, and case study analysis.
Apply	CO3	Produce contextually responsive drawings that interpret site-specific conditions, cultural cues, and environmental factors, using drawing as a tool to observe and communicate architecture in context.
Create	CO4	Develop investigative and speculative drawing approaches to explore architectural ideas beyond representation, to articulate design intent and spatial thinking.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING											
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**
CO1	0	3	2	1	2	3	1	1	1	2	0 No Co-Relation
CO2	1	3	3	2	2	2	0	0	2	2	1 Low Co-Relation
CO3	2	2	2	3	3	1	0	0	2	2	2 Medium Co-Relation
CO4	1	3	3	1	2	0	2	1	3	3	3 High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	3	2	1	2	0	No Co-Relation
CO2	3	2	1	2	3	1	Low Co-Relation
CO3	3	3	1	3	3	2	Medium Co-Relation
CO4	2	3	3	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Systems of Representation	CO1	1.1	Understand	Introduction to Representational Drawing Systems. Purpose of architectural conventions; types of drawings and their logic.Orthographic Projections: Plan, Section, Elevation. scale, line weights, hierarchy etc.	Class Exercise, Lecture	27
		1.2	Analyse	Drawing from Precedents:This unit engages students in analytical drawing of architectural precedents to understand spatial relationships, constructional logic, and material articulation. Through layered drawings, students decode how buildings are assembled and experienced.	Online	
	CO4	1.3	Evaluate	Axonometric and Exploded Views:This unit introduces axonometric and exploded drawings as tools to visualize spatial logic, structural assemblies, and hierarchical relationships. Students learn to dissect and recompose architectural elements across scales through precise, layered representation.	Self-directed Study	
	CO1	1.4	Analyse	Layering and Visual Hierarchy in Drawings This unit explores how graphic techniques such as line weight, shading, and spatial sequencing can be used to communicate structure, circulation, and material articulation. Drawing as an explorative tool is emphasized to develop clarity, depth, and intentional visual hierarchy in architectural representation.	Self-directed Study	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Systems of Representation	CO1	1.5	Analyse	Drawing Architecture Across Scales (Site to Detail) This unit emphasizes detail-specific drawing as a means to understand and represent the material and constructional logic of architecture. Through scaled and integrated drawings, students explore how spatial and structural systems translate from the broader context of site to the precision of architectural details	Fieldwork	
2. Drawing as Investigation	CO4	2.1	Understand	Introduction to Drawing as Investigative Practice: This unit introduces drawing as a tool for inquiry, reflection, and spatial exploration—extending beyond representation to become an active part of the design process. Students will examine how drawing can generate, question, and evolve architectural ideas.	Lecture, Class Exercise, Studio	18
	CO3	2.2	Apply	Site-Specific and Contextual Drawing This unit focuses on observing and interpreting environmental, cultural, and spatial conditions through responsive drawing. Students engage with site as a living context, using drawing to reveal relationships, patterns, and latent potentials in place.	Class Exercise	
	CO1	2.3	Create	Speculative and Conceptual Drawing This unit encourages the use of diagrams, sequencing, and experimental notations as tools to think through design. Students will explore drawing as a generative and imaginative process to articulate abstract concepts, spatial narratives, and architectural possibilities.	Self-directed Study, Fieldwork, Studio	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Drawing as Investigation	CO1	2.4	Create	Collaborative Drawing & Spatial Storyboarding This unit engages students in group-based drawing exercises that explore narrative, sequence, and spatial imagination. Through collaborative representation, students develop shared architectural ideas and visualize spatial experiences across time and context.	Studio, Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	**Marks**
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	
1. Systems of Representation	Written Test, Assignment Review, Jury	27	90	Written Exam (Laboratory Evaluation)	50
2. Drawing as Investigation	Jury	18	60	Review (Portfolio/Digital Portfolio/ Report)	100

REFERENCES

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2. De Silva, Shayari, editor. Geoffrey Bawa: Drawing from the Archives. Lars Müller Publishers, 2023.
3. Atelier Bow-Wow. Graphic Anatomy. Toto Publishing, 2007
4. Cook, Peter. Drawing: The Motive Force of Architecture. Wiley-Academy, 2008.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 02

SURVEY

COURSE CODE: 25BAR207

CREDITS: 02

Type of Course:	Building Sciences and Applied Engineering (BS and AE)
Prerequisites:	–

COURSE DESCRIPTION

The course aims to prepare students to analyse ecological and geomorphological characteristics of a given site. The objective of the course is to understand the importance of the site and its characteristics in architecture and the determining factors which govern the siting of a given project. The course is designed to make the students understand the natural and man-made components that generate the decisions in the planning of a given site. Emphasis is placed on the practical application of these techniques in architectural site planning, topographic mapping, and contour interpretation. Through a combination of theory and hands-on fieldwork, students will learn to collect, record, and analyse survey data accurately, enabling them to make informed decisions in design and site development. This course is designed to introduce students to the principles and practices of land surveying and levelling essential for site planning and design.

No. Of Teaching Hours					Scheme Of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	0	0	2	2	100	100	200	50	50	—	—
Per semester	0	0	30	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyse	CO1	Ability to analyse ecological and geomorphological characteristics of a site; use site analysis information to propose appropriate site planning and landscape design.
Analyse	CO2	Analyse and interpret site conditions, including topography, climate, vegetation, and infrastructure, to inform context-sensitive architectural design decisions.
Apply	CO3	Apply sustainable site planning principles such as water management, energy efficiency, and ecological conservation to create environmentally responsible designs.
Apply	CO4	Understand basic surveying principles and techniques, gain proficiency in using surveying instruments and apply surveying data in site analysis and architectural design.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	3	3	3	3	0	3	3	3	3	3	3	No Co-Relation
CO2	3	3	3	3	0	3	3	3	3	3	3	Low Co-Relation
CO3	3	3	3	3	0	3	3	3	3	3	3	Medium Co-Relation
CO4	3	3	3	3	0	3	3	3	3	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	3	3	3	3	0	No Co-Relation
CO2	3	3	3	3	3	1	Low Co-Relation
CO3	3	3	3	3	3	2	Medium Co-Relation
CO4	3	3	3	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Site	CO1	1.1	Understand	Basics of Site Study: Basic terminologies, role of site planning, study of physical aspects - topography and slope	Lecture, Lab	6
		1.2	Analyse	Climatic analysis and socio-economic and cultural context.	Lecture, Lab	
	CO2	1.3	Analyse	Principles of site planning and layout - functional zoning and space allocation, Circulation systems: vehicular, pedestrian, service.	Lecture, Lab	
		1.4	Understand	Sustainable site development practices	Lecture, Lab	
	CO3	1.5	Apply	Rainwater harvesting and drainage, tree preservation and landscape integration.	Lecture, Lab	
2. Basics of Surveying and Levelling	CO4	2.1	Understand	Definition, objectives, importance and classification of surveying.	Lecture, Class Exercise	8
		2.2	Understand	Understanding of scales and units	Lecture, Class Exercise	
	CO4	2.3	Understand	Instruments and accessories used in surveying.	Lecture, Class Exercise	
		2.4	Understand	plotting and error adjustments. Understand the importance of levelling and its techniques	Lecture, Class Exercise	
		2.5	Understand	differential levelling, profile levelling, cross-section & contouring, including characteristics and methods.	Lecture, Class Exercise	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Site Exploration and analysis	CO2	3.1	Analyse	Site analysis and site planning at a real-life location, considering its locational context, physical features, views, orientation, volumetric analysis and figure ground study of the built-form characteristics, visual imageries, street-scape and skyline analysis; pedestrian, vehicular circulation pattern, and utility networks.	Lecture, Class Exercise, Fieldwork	6
		3.2	Analyse	Correlation between physical, socio-cultural, environmental, and socioeconomic dimensions of the built environment.	Lecture, Class Exercise, Fieldwork	
		3.5	Analyse	Study of realistic site to create physical environments through basic tools of master planning, such as: movement networks, open spaces, suggestive built form, and infrastructure network.	Lecture, Class Exercise, Fieldwork	
4. Site Surveying	CO4	4.1	Understand	Determination of reduced levels of points using Auto Level, To Conduct Profile Levelling and cross-sectioning, plotting.	Lecture, Fieldwork	10
		4.2	Understand	Introduction to Total Station, components, and Temporary adjustment. Horizontal and Sloping Distance Measurement using Total Station.	Lecture, Fieldwork	
		4.3	Understand	Orientation of the Total station using a compass and measurement of magnetic bearing. Measurement of Coordinates (N, E, Z) of various points from one instrument position using a Total Station.	Lecture, Fieldwork	
		4.4	Understand	Detailed survey of an area including creation of a job file, selecting appropriate point codes, measurement of coordinates, downloading of data, and preparation of contour maps.	Lecture, Fieldwork	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
4. Site Surveying	CO4	4.5	Apply	Setting out the positions of the column by stakeout.	Lecture, Fieldwork	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Site	Assignment Review, Jury	6	10	Review (Portfolio/Digital Portfolio/ Report)	10
2. Basics of Surveying and Levelling	Assignment Review, Jury	8	15	Review (Portfolio/Digital Portfolio/ Report)	15
3. Site Exploration and analysis	Jury, Time Problem	6	10	Review (Portfolio/Digital Portfolio/ Report)	10
4. Site Surveying	Written Test, Time Problem, Jury	10	65	Review (Portfolio/Digital Portfolio/ Report)	65

REFERENCES

1. Basak, N. N. (2009). Surveying and levelling (2nd ed.). Tata McGraw-Hill Education.
2. Bannister, A., Raymond, S., & Baker, R. (1998). Surveying (7th ed.). Pearson Education Limited.
3. Ching, F. D. K. (2014). Architecture: Form, space, and order (4th ed.). Wiley.
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6. Groat, L., & Wang, D. (2013). Architectural research methods (2nd ed.). Wiley."
7. Neuman, D., & Kilmer, W. O. (2017). The architect's studio companion: Rules of thumb for preliminary design (6th ed.). Wiley."
8. Punmia, B. C., Jain, A. K., & Jain, A. K. (2016). Surveying (Vol. 1, 17th ed.). Laxmi Publications."

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 03

(LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab / Workshop/ Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR301	Architectural Design 1: Vertical Studio	9	1	4	4	9	450	450	900	225	225	-	-
25BAR302	Environmental and Structural Systems	6	2	2	2	6	300	300	600	100	100	100	3 hours
25BAR303	History and Construction	3	1	1	1	3	150	150	300	75	75	-	-
25BAR304	Digital Craft Workshop	3	1	0	2	3	150	150	300	75	75	-	-
25BAR305	Theory of Architecture	3	1	0	2	3	150	150	300	75	75	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
Total		**26**											

*** One elective course of 2 credits is recommended**

SEMESTER 03

ARCHITECTURAL DESIGN 1: VERTICAL STUDIO

COURSE CODE: 25BAR301
CREDITS: 09

Type of Course:	Professional Core Courses (PC)
Prerequisites:	Foundation Studio 1 & 2

COURSE DESCRIPTION
This studio introduces students to program-based design through mid-scale projects. The studio emphasizes spatial organization, circulation logic, and environmental responsiveness while training students to move between analysis, concept formation, and design resolution. Students will explore architectural assemblage—how form, structure, circulation, and program come together—to develop coherent spatial systems that are more than the sum of their parts. Through iterative massing, site-specific strategies, and user-centered planning, students will develop architectural proposals that are clear in layout, sensitive to context, and grounded in programmatic reasoning. The aim is to build fluency in architectural thinking that bridges intuitive spatial ideas with structured, analytical processes.

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Design Studio/ Construction Studio/Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Mark**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	4	4	9	450	450	900	225	225	-	-
Per semester	15	60	60	135							

COURSE OUTCOMES		
Domain		**Outcomes**
Analyze	CO1	Demonstrate the ability to analyze site, program, and user behavior to inform the spatial organization of small to mid-scale buildings.
Create	CO2	Develop architectural proposals that synthesize form, circulation, structure, and program into coherent and context-responsive spatial systems.
Evaluate	CO3	Employ iterative design methods to refine spatial layout, structural rhythm, and site relationships.
Create	CO4	Articulate a conceptual premise that anchors design decisions across different scales and communicates a clear architectural intent.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	3	2	2	2	2	1	1	2	1	0	No Co-Relation
CO2	2	3	2	2	2	3	1	1	2	2	1	Low Co-Relation
CO3	1	2	3	1	1	2	1	0	3	2	2	Medium Co-Relation
CO4	2	2	2	1	2	1	2	1	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO/ PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	2	1	2	2	0	No Co-Relation
CO2	3	2	2	2	2	1	Low Co-Relation
CO3	2	3	2	1	3	2	Medium Co-Relation
CO4	2	2	2	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Making	CO2	1.1	Create	Develop massing and spatial configurations using modular principles, beginning with 1:200 site overlays.	Class Exercise, Studio, Workshop	30
		1.2	Create	Refine spatial systems through scaled models and iterative plans/sections at 1:100–1:50.	Class Exercise, Studio, Workshop	
2. Sensing	CO1	2.1	Analyze	Map user flows, access points, and spatial use across entries, transitions, and gathering zones.	Fieldwork, Studio, Seminar	20
		2.2	Analyze	Analyze circulation and zoning in relation to functional requirements and intuitive spatial navigation.	Fieldwork, Studio, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Observing	CO1	3.1	Analyze	Investigate the architectural program in relation to site context, user needs, and behavior patterns.	Fieldwork, Studio, Seminar	25
		3.2	Analyze	Study precedents of similar programs (e.g., libraries, learning centers, clinics) to understand typological responses.	Fieldwork, Studio, Seminar	
4. Iterating	CO3	4.1	Evaluate	Alternate between diagrams, models, and drawings to test structural rhythm, sequencing, and site response.	Studio, Self-directed Study	35
		4.2	Evaluate	Integrate critique and feedback to revise spatial clarity, system coherence, and environmental integration.	Studio, Self-directed Study	
5. Conceptualising	CO4	5.1	Create	Frame a central design premise emerging from program, user needs, and contextual response.	Studio, Self-directed Study	25
		5.2	Create	Translate the concept into a clear architectural narrative across scales and spatial strategies.	Studio, Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	**Marks**
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	
1. Making	Assignment Review, Jury, Time Problem	30	100	Review (Portfolio/Digital Portfolio/ Report)	90
2. Sensing	Assignment Review, Jury, Seminar, Time Problem	20	60	Review (Portfolio/Digital Portfolio/ Report)	60
3. Observing	Assignment Review, Jury, Seminar, Time Problem	25	70	Review (Portfolio/Digital Portfolio/ Report)	80
4. Iterating	Assignment Review, Jury, Time Problem	35	120	Review (Portfolio/Digital Portfolio/ Report)	130
5.Conceptualising	Assignment Review, Jury, Time Problem	25	100	Review (Portfolio/Digital Portfolio/ Report)	90

REFERENCES

1. Correa, Charles. A Place in the Shade: The New Landscape and Other Essays. Penguin Books India, 2012.

2. Correa, Charles (ed.) Vistara: The Architecture of India. Festival of India/Published by the Government of India, 1986.

3. "Curtis, William J.R. Modern Architecture Since 1900. 3rd ed., Phaidon Press, 1996."

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Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 03

ENVIRONMENTAL AND STRUCTURAL SYSTEMS

COURSE CODE: 25BAR302
CREDITS: 06

Type of Course:	Building Sciences and Applied Engineering (BS and AE)
Prerequisites:	–

COURSE DESCRIPTION
This course introduces students to the principles, tools, and strategies necessary to design buildings that are resource-efficient and environmentally responsible. Emphasizing energy efficiency, passive design strategies, and sustainable material use, the course equips students to integrate performance-driven design thinking into architectural practice. Through case studies, analytical tools, and hands-on exercises, students learn to assess building performance and explore design solutions that reduce environmental impact while enhancing occupant comfort and well-being. It further develops technical literacy in analyzing site conditions, soil behavior, and foundation systems, alongside an introduction to structural elements, load-bearing mechanisms, and design philosophies. Through a combination of theoretical input, analytical tools, and foundational structural design concepts, students gain a comprehensive understanding of how ecological, material, and structural systems inform sustainable and context-responsive architectural practice.

No. of Teaching Hours					**Scheme of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Mark**	**Duration of Exam**
Per week	2	2	2	6	300	300	600	100	100	100	3 Hours
Per semester	30	30	30	90							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Understand fundamental principles of energy efficiency and environmental performance in architecture.
Apply	CO2	Analyze climatic data and building behavior tools, and daylight analysis in architectural proposals.

Domain	Outcomes	
Evaluate	CO3	Understand and evaluate site conditions, soil properties, and appropriate foundation systems for architectural design, including shallow and deep foundations with considerations for damp and termite proofing.
Analyze	CO4	Identify and analyze key structural components and load-bearing systems (walls, columns, beams, slabs), their materials (mud, bamboo, stone, brick), and the mechanisms of load transfer under various loading conditions.
Analyze	CO5	Apply fundamental structural principles to assess the behavior of simple building systems, distinguish between statically determinate and indeterminate structures, and understand basic design philosophies such as Working Stress and Limit State Methods.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	3	3	3	3	0	3	3	3	3	3	0	No co relation
CO2	2	3	3	3	0	3	3	3	3	3	1	Low Co-Relation
CO3	3	3	3	2	1	3	3	3	3	3	2	Medium Co-Relation
CO4	2	3	3	2	0	3	2	3	2	2	4	Medium Co-Relation
CO5	2	3	3	2	0	3	2	3	2	2		

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	1	3	3	3	0	No co relation
CO2	3	1	2	3	3	1	Low Co-Relation
CO3	3	1	2	3	3	2	Medium Co-Relation
CO4	2	1	2	2	3	4	Medium Co-Relation
CO5	1	1	2	2	3		

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Efficiency in Architecture	CO1	1.1	Analyze	Introduction to efficiency in architecture: Importance of energy and resource efficiency in buildings, sustainable development goals and architecture,	Class Exercise, Lecture	15
		1.2	Apply	Overview of building energy systems and performance metrics, daylighting and principles of daylight design.	Class Exercise, Lecture	
2. Climate	CO2	2.1	Apply	Climate, human thermal comfort and passive design principles: Understanding macro and microclimate, thermal comfort indices, reading and interpreting climate data.	Class Exercise, Lecture, Workshop	15
		2.2	Apply	Robust comprehension of orientation and site planning, natural ventilation and air flow, shading devices, solar control, thermal mass and insulation strategies.	Class Exercise, Lecture, Workshop	
3. Substructure Systems	CO3	3.1	Evaluate	Site, Soil, and Substructure Systems: Introduction to building components: substructure vs superstructure, Site exploration: methods, types and properties of soils, Bearing capacity of soil and settlement behavior,	Class Exercise, Fieldwork, Lecture	20
		3.2	Apply	Foundation systems: types, selection criteria, depth factors, Foundation detailing: shallow and deep foundations, Damp-proofing and termite-proofing at the foundation level	Class Exercise, Fieldwork, Lecture	
4. Structural Systems	CO4	4.1	Analyze	Structural Components and Load-Bearing Systems: Structural elements of superstructure: columns, beams, slabs, and walls. Load-bearing wall construction: characteristics, materials (mud, bamboo, stone, brick), advantages and limitations.	Class Exercise, Lecture	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
4. Structural Systems		4.2	Analyze	Load transfer mechanisms in load-bearing systems, Masonry behavior and factors affecting compressive strength, Structural loads: dead, live, wind, seismic, snow, thermal, settlement, Load combinations and impact on building performance.	Class Exercise, Lecture	20
5. Structural Design Fundamentals	CO5	5.1	Analyze	Structural Behavior and Design Fundamentals: Classification of structures: statically determinate and indeterminate. Behavior of structural systems under various loads, Introduction to stress-strain relationship of steel and concrete.	Class Exercise, Lecture	20
		5.2	Apply	Structural analysis methods (introductory concepts). Design philosophies: Working Stress Method (WSM) and Limit State Method (LSM). General principles of masonry structural design.	Class Exercise, Lecture	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Efficiency in Architecture	Assignment Review, Jury, Written Test	15	60	Written Exam	50
2. Climate	Assignment Review, Jury, Written Test	15	60	Written Exam	50
3. Substructure Systems	Assignment Review, Jury	20	60	Review (Portfolio/Digital Portfolio/ Report)	60
4. Structural Systems	Assignment Review, Jury	20	60	Review (Portfolio/Digital Portfolio/ Report)	70
5. Structural Design Fundamentals	Assignment Review, Jury	20	60	Review (Portfolio/Digital Portfolio/ Report)	70

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2. Punmia, B. C., Jain, A. K., & Jain, A. K. (2016). Soil mechanics and foundations (16th ed.). Laxmi Publications.
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6. Ramamrutham, S., & Narayan, R. (2014). Strength of materials (18th ed.). Dhanpat Rai Publishing.
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11. Szokolay, S. V. (2014). Introduction to architectural science: The basis of sustainable design (3rd ed.). Routledge.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 03

HISTORY AND CONSTRUCTION

COURSE CODE: 25BAR303
CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION
This course examines the history of architecture through the lens of construction, material, and typology. It explores how building techniques — from post-lintel to vaults and domes — interact with climate, craft, and culture to shape spatial form across time and geography. Through drawing-based inquiry, students engage with structural systems, typological continuities, and the translation of techniques across regions and eras, from ancient stone temples to colonial hybrids. The course bridges historical understanding with constructional thinking, deepening students' grasp of how architecture is produced.

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	1	1	3	150	150	300	75	75	—	—
Per semester	15	15	15	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Identify major structural principles (e.g., post-lintel, arch, vault, dome) and their historical applications across diverse regions and materials.
Analyze	CO2	Analyze how climate, material, and craftsmanship shape construction techniques and architectural form in specific cultural contexts.
Evaluate	CO3	Compare and interpret architectural typologies (e.g., dwellings, mosques, markets) by tracing their structural, spatial, and cultural continuities and variations.
Apply	CO4	Demonstrate structural and typological understanding through analytical section drawings and construction-based visual studies.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	1	1	1	1	3	2	1	0	1	0	0	No Co-Relation
CO2	2	2	3	2	3	2	1	1	2	1	1	Low Co-Relation
CO3	2	2	3	1	3	2	1	1	2	1	2	Medium Co-Relation
CO4	1	3	2	1	2	3	2	1	2	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	2	0	1	1	0	No Co-Relation
CO2	2	2	1	2	2	1	Low Co-Relation
CO3	1	2	1	2	2	2	Medium Co-Relation
CO4	1	3	1	1	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Building with Structure	CO1	1.1	Understand	Identify key structural principles (post-lintel, corbelling, arch, vault, dome, truss) and describe their applications in Mesopotamian, Roman, Islamic, and South Asian contexts.	Lecture, Class Exercise, Seminar	10
	CO4	1.2	Apply	Develop structural understanding through analytical drawing and interpretation of historical precedents.	Class Exercise, Workshop, Self-directed Study	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Building with Structure	CO2	2.1	Analyze	Analyze how climate and locally available materials (stone, earth, timber, brick, concrete) shape construction techniques.	Lecture, Fieldwork, Research	8
		2.2	Analyze	Examine how regional craft traditions and artisanal techniques contribute to architectural form and constructional detail.	Fieldwork, Seminar, Workshop	
3. Typologies in Context	CO3	3.1	Evaluate	Compare the structural and spatial characteristics of architectural types like dwellings, temples, mosques, stepwells, and markets.	Lecture, Research, Seminar	9
		3.2	Evaluate	Interpret how typological variations reflect cultural practices, materials, and construction systems over time.	Seminar, Self-directed Study, Class Exercise	
4. Techniques in Translation	CO2	4.1	Analyze	Examine how construction techniques adapt and transform through trade, migration, and colonial encounters.	Lecture, Research, Seminar	8
	CO3	4.2	Evaluate	Evaluate how Indo-Saracenic architecture and colonial building practices reveal processes of hybridisation and material innovation.	Research, Seminar, Self-directed Study	
5. Drawing Construction	CO4	5.1	Apply	Create analytical sectional drawings that demonstrate structural and spatial understanding of historical buildings.	Workshop, Class Exercise, Self-directed Study	10
		5.2	Apply	Illustrate how construction logic influences spatial experience, using drawing-based analysis of selected case studies.	Workshop, Research, Seminar	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Building with Structure	Assignment Review, Quiz, Seminar, Written Assignment Review	10	35	Review (Portfolio/Digital Portfolio/ Report)	30
2. Material, Climate, and Craft	Assignment Review, Quiz, Seminar, Written Assignment Review	8	25	Review (Portfolio/Digital Portfolio/ Report)	20
3. Typologies in Context	Assignment Review, Quiz, Seminar, Written Assignment Review	9	30	Review (Portfolio/Digital Portfolio/ Report)	35
4. Techniques in Translation	Assignment Review, Quiz, Seminar, Written Assignment Review	8	25	Review (Portfolio/Digital Portfolio/ Report)	25
5. Drawing Construction	Assignment Review, Quiz, Seminar, Written Assignment Review	10	35	Review (Portfolio/Digital Portfolio/ Report)	40

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12. Ragette, Friedrich. Traditional Domestic Architecture of the Arab Region. Sharjah: American University of Sharjah, 2003.

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Semester 03

DIGITAL CRAFT WORKSHOP

COURSE CODE: 25BAR304
CREDITS: 03

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	Basic digital skills and working knowledge of Rhino

COURSE DESCRIPTION
This course advances students' digital design capabilities with a focus on precision 3D modeling and integrated digital workflows. Students develop complex forms using Rhino (NURBS-based modeling), explore parametric systems through Grasshopper (visual scripting), and experiment with Generative AI tools to ideate and evolve design options. The course culminates in physical prototyping through 3D printing, combining digital and fabrication skills in a hands-on process.

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	2	3	150	150	300	75	75	—	—
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Create	CO1	Model complex geometric relationships and design variations using parametric logic and visual scripting (Grasshopper).
Apply	CO2	Demonstrate a foundational understanding of IoT by building a basic system to sense and display real-world data using a microcontroller.
Apply	CO3	Employ generative and optimization techniques for architectural form-finding based on defined rules and performance criteria.
Create	CO4	Synthesize digital craft techniques to design, fabricate, and document a prototype that is either performance-driven or interactive.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	0	3	2	0	0	2	0	0	0	2	0	No co relation
CO2	0	2	3	2	0	3	0	0	0	2	1	Low Co-Relation
CO3	0	3	3	2	0	2	0	0	2	3	2	Medium Co-Relation
CO4	2	3	2	2	0	2	0	0	3	3	4	Medium Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	2	3	0	2	0	No co relation
CO2	2	3	3	2	2	1	Low Co-Relation
CO3	2	2	3	2	3	2	Medium Co-Relation
CO4	2	3	3	2	3	4	Medium Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Coding Fundamentals for Design	CO1	1.1	Apply	Mastering Grasshopper: data flow, list management, and rule-based geometric systems. This is the foundation for both generative design and interactive systems.	Class Exercise	15
2. Advanced Parametric Design	CO2	2.1	Apply	Algorithmic modelling techniques. Using optimization tools (e.g., Galapagos) to evolve designs based on goals like solar exposure or structural efficiency.	Class Exercise	10

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Generative & Optimization Workflows	CO3	3.1	Apply	Introduction to physical computing: setting up an Arduino, basic coding, and wiring sensors to capture and display environmental data.	Class Exercise	10
4. Performance-Based Design & Analysis	CO4	4.1	Create	Project development. Students will propose and create a final prototype by integrating skills from the previous modules in a creative way.	Class Exercise	10

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Coding Fundamentals for Design	Assignment Review	15	50	Review (Portfolio/Digital Portfolio/ Report)	50
2. Advanced Parametric Design	Assignment Review	10	40	Review (Portfolio/Digital Portfolio/ Report)	40
3. Generative & Optimization Workflows	Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	30
4. Performance-Based Design & Analysis	Jury	10	30	Review (Portfolio/Digital Portfolio/ Report)	30

REFERENCES

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5. Menges, A., & Ahlquist, S. (2011). Computational Design Thinking. Wiley.

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Semester 03

THEORY OF ARCHITECTURE

COURSE CODE: 25BAR305
CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION
This course introduces students to architecture as a field of ideas, not just buildings. It explores how theory helps us ask deeper questions about space, meaning, experience, and power. Moving across classical canons, modernist visions, phenomenology, and everyday spatial politics, students learn to think critically about architecture's cultural, historical, and social dimensions. Through close reading, discussion, and analysis, the course builds a foundation for reflective architectural practice.

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	2	3	150	150	300	75	75	—	—
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Differentiate between theory, design, and history as distinct yet interrelated modes of architectural thinking.
Analyze	CO2	Interpret key theoretical positions — classical, modern, phenomenological, postmodern, and postcolonial — through selected texts and architectural case studies.
Analyze	CO3	Examine how cultural, political, and experiential factors shape architectural meaning across diverse contexts.
Apply	CO4	Apply theoretical frameworks to critique contemporary architectural projects and everyday spatial experiences.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	1	1	3	0	3	0	1	0	2	1	0	No Co-Relation
CO2	1	2	3	1	3	0	1	0	2	2	1	Low Co-Relation
CO3	2	2	3	2	3	0	1	1	2	2	2	Medium Co-Relation
CO4	2	3	3	2	3	1	2	1	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	0	0	0	1	1	0	No Co-Relation
CO2	1	0	1	2	1	1	Low Co-Relation
CO3	1	0	1	3	2	2	Medium Co-Relation
CO4	2	1	2	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Why Theory?	CO1	1.1	Understand	Describe architectural theory as a mode of understanding architecture beyond objects and practices.	Lecture, Seminar	6
		1.2	Understand	Distinguish theory from history and design by comparing how each frames architecture.	Lecture, Class Exercise, Seminar	
	CO2	1.3	Apply	Use theoretical concepts to think critically about space, meaning, and context.	Seminar, Self-directed Study, Class Exercise	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Classical and Colonial Canons	CO2	2.1	Understand	Identify key classical ideals in Western architectural theory, such as order, symmetry, and proportion.	Lecture, Research	10
		2.2	Understand	Explain how Renaissance thinkers developed ideas of architectural authorship and representation.	Lecture, Self-directed Study, Seminar	
	CO3	2.3	Analyze	Interpret spatial and cosmological principles from the Indian subcontinent using selected textual sources.	Seminar, Research	
		2.4	Evaluate	Evaluate how colonial architecture and planning appropriated classical ideals to assert spatial and political authority.	Seminar, Research, Lecture	
3. Modernism and Its Discontents	CO2	3.1	Understand	Summarize key modernist ideas of clarity, abstraction, and efficiency using canonical figures such as Loos, Le Corbusier, the Bauhaus, and others.	Lecture, Research	10
		3.2	Analyze	Compare how postmodernist architects such as Denise Scott Brown, Charles Jencks, and Aldo Rossi, and others critiqued modernism by embracing ambiguity, symbolism, and pluralism.	Seminar, Research, Self-directed Study	
	CO3	3.3	Evaluate	Assess how South Asian architects such as Correa, Bawa, Doshi, and others reinterpreted modernist principles to respond to local context and identity.	Lecture, Seminar, Research	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
4. Place and Experience	CO2	4.1	Understand	Explain phenomenology through Merleau-Ponty's conception of the body as the primary instrument of spatial perception and experience.	Lecture, Seminar	9
	CO4	4.2	Analyze	Analyze how architecture evokes emotional and sensory responses through spatial qualities such as light, material, and scale, drawing from Peter Zumthor's writings on atmosphere.	Seminar, Class Exercise	
	CO3	4.3	Evaluate	Evaluate how architecture responds to landscape and cultural meaning through the concept of genius loci, referencing the work of Christian Norberg-Schulz and B. V. Doshi (on place and tradition).	Fieldwork, Seminar, Self-directed Study	
5. Power and the Everyday: Spatial Politics	CO2	5.1	Understand	Describe Henri Lefebvre's theory of space as socially and politically produced.	Lecture, Self-directed Study	10
	CO3	5.2	Analyze	Examine how everyday practices resist and reshape dominant spatial systems, drawing on thinkers such as Michel de Certeau, Jane Jacobs, and others.	Seminar, Class Exercise	
	CO4	5.3	Evaluate	Assess how everyday power structures shape access, mobility, and visibility in built environments, particularly in South Asian contexts, drawing on critical reflections in works like Why Loiter?.	Seminar, Research, Fieldwork	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Why Theory?	Assignment Review, Quiz, Seminar, Written Assignment Review	6	25	Review (Portfolio/Digital Portfolio/ Report)	20
2. Classical and Colonial Canons	Assignment Review, Quiz, Seminar, Written Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	30
3. Modernism and Its Discontents	Assignment Review, Quiz, Seminar, Written Assignment Review	10	35	Review (Portfolio/Digital Portfolio/ Report)	35
4. Place and Experience	Assignment Review, Quiz, Seminar, Written Assignment Review	9	30	Review (Portfolio/Digital Portfolio/ Report)	35
5. Power and the Everyday: Spatial Politics	Assignment Review, Quiz, Seminar, Written Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	30

REFERENCES

1. Alberti, Leon Battista. On the Art of Building in Ten Books. Trans. Joseph Rykwert, Neil Leach, and Robert Tavernor. MIT Press, 1988.
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4. Le Corbusier. Towards a New Architecture. Trans. Frederick Etchells. Dover Publications, 1985.
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7. Mayamata: An Indian Treatise on Housing Architecture and Iconography, trans. and ed. Bruno Dagens. New Delhi: Indira Gandhi National Centre for the Arts / Sitaram Bhartia Institute, 1994.
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Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed

Semester 4
(Level 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
							Marks			SEE Evaluation			
										Review			Written
			Lecture	Design Studio/ Construction Studio / Capstone Project	Lab/ Workshop / Studio Exercise / Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration
25BAR401	Architectural Design 2: Housing Studio	9	1	4	4	9	450	450	900	225	225	-	-
25BAR402	Integrated Building Systems and Services	6	2	2	2	6	300	300	600	100	100	100	3 hours
25BAR403	History and Urbanism 1	3	1	0	2	3	150	150	300	75	75	-	-
25BAR404	Innovation Lab	3	0	0	3	3	150	150	300	75	75	-	-
25BAR405	Interior Studio	3	1	1	1	3	150	150	300	75	75	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
Total		**26**											

*** One elective course of 2 credits is recommended**

Semester 04

ARCHITECTURAL DESIGN 2: HOUSING STUDIO

COURSE CODE: 25BAR401
CREDITS: 09

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION

This studio approaches housing as both a spatial practice and a site of social transformation. Through observation, mapping, and iterative design, students investigate how people inhabit, share, and negotiate space across diverse socio-economic, cultural, and climatic contexts. The course emphasizes understanding everyday routines, regional specificities, and environmental conditions that shape housing typologies and spatial behaviour.

Students will develop housing units and clusters that are responsive to user needs, equitable in access, and contextually rooted — integrating spatial, social, and ecological logics. Emphasis is placed on balancing individual and collective use, private and public interfaces, and vertical and horizontal systems of organization. Structural and service strategies are introduced to support buildability, flexibility, and sustainability. The studio fosters an ethical and situated design approach grounded in lived realities, inclusive futures, and the evolving urban fabric.

No. of Teaching Hours					Scheme of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Design Studio/ Construction Studio/Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	4	4	9	450	450	900	225	225	–	–
Per semester	15	60	60	135							

COURSE OUTCOMES

Domain		Outcomes
Analyze	CO1	Observe and analyze how social, cultural, and environmental factors shape patterns of living in diverse housing contexts.
Create	CO2	Develop housing units and clusters that reflect user needs, spatial routines, and site-specific opportunities and constraints.
Apply	CO3	Translate housing concepts into spatial layouts through drawings, volumetric and sectional models, and iterative design methods.
Apply	CO4	Demonstrate an understanding of structural and service strategies that support the organization and inhabitation of collective housing.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	3	2	2	2	3	1	1	0	2	1	0	No Co-Relation
CO2	2	3	2	2	2	2	1	1	2	2	1	Low Co-Relation
CO3	1	3	2	1	1	2	1	0	3	2	2	Medium Co-Relation
CO4	1	2	2	1	1	3	1	1	2	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO/ PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	2	1	3	2	0	No Co-Relation
CO2	3	2	2	2	3	1	Low Co-Relation
CO3	2	3	2	1	3	2	Medium Co-Relation
CO4	2	2	2	1	2	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Observing	CO1	1.1	Understand	Document daily life patterns through field visits, sketches, and user observation.	Fieldwork, Studio, Seminar	25
		1.2	Understand	Examine relationships between social structure, spatial use, and housing type.	Fieldwork, Studio, Seminar	
		1.3	Analyze	Analyze public–private interfaces and shared spaces across housing contexts.	Fieldwork, Studio, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Mapping	CO1	2.1	Analyze	Map user movement, thresholds, and shared use across home, cluster, and neighbourhood.	Fieldwork, Studio, Seminar	20
	CO3	2.2	Apply	Identify site-specific opportunities by overlaying climatic, social, and spatial data.	Fieldwork, Studio, Seminar	
		2.3	Apply	Use diagrams and annotated mappings to define housing-related design cues.	Fieldwork, Studio, Seminar	
3. Conceptualising	CO2	3.1	Apply	Formulate spatial logic based on observed routines, social relationships, and site readings.	Studio, Self-directed Study	25
		3.2	Create	Develop conceptual diagrams and design narratives that anchor the housing proposal.	Studio, Self-directed Study	
		3.3	Evaluate	Critically test preliminary ideas for responsiveness to user and environmental needs.	Studio, Self-directed Study	
4. Making	CO3	4.1	Apply	Design housing units addressing scale, privacy, access, and spatial experience.	Class Exercise, Studio, Workshop	40
		4.2	Apply	Translate unit logics into clusters, exploring aggregation and shared infrastructure.	Class Exercise, Studio, Workshop	
		4.3	Create	Build sectional and volumetric models to explore inhabitation, variation, and sequencing.	Class Exercise, Studio, Workshop	
5. Structuring	CO4	5.1	Understand	Introduce vertical and horizontal access systems suitable for the cluster scale.	Studio, Self-directed Study	25
		5.2	Apply	Integrate structural strategies appropriate for the unit and cluster forms.	Studio, Self-directed Study	
		5.3	Apply	Explore service cores and their implications on plan and section design.	Studio, Self-directed Study	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Structuring	CO4	5.4	Evaluate	Test structural and service proposals for buildability, circulation, and user experience.	Studio, Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Observing	Assignment Review, Jury, Seminar, Time Problem	25	70	Review (Portfolio/Digital Portfolio/ Report)	50
2. Mapping	Assignment Review, Jury, Seminar, Time Problem	20	60	Review (Portfolio/Digital Portfolio/ Report)	50
3. Conceptualising	Assignment Review, Jury, Time Problem	25	90	Review (Portfolio/Digital Portfolio/ Report)	80
4. Making	Assignment Review, Jury, Time Problem	40	150	Review (Portfolio/Digital Portfolio/ Report)	180
5. Structuring	Assignment Review, Jury, Time Problem	25	80	Review (Portfolio/Digital Portfolio/ Report)	90

REFERENCES

1. Correa, Charles. Housing and Urbanisation. Mumbai: Urban Design Research Institute, 1999.
2. Dovey, Kim. Becoming Places: Urbanism/Architecture/Identity/Power. London: Routledge, 2010.
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5. Levitt, David, and Jo McCafferty. The Housing Design Handbook: A Guide to Good Practice. London: Routledge, 2019.
6. Neuwirth, Robert. Shadow Cities: A Billion Squatters, a New Urban World. Routledge, 2004.
7. Rapoport, Amos. House Form and Culture. Englewood Cliffs: Prentice-Hall, 1969.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 04

INTEGRATED BUILDING SYSTEMS AND SERVICES

COURSE CODE: 25BAR402
CREDITS: 06

Type of Course:	Building Sciences and Applied Engineering (BS and AE)
Prerequisites:	–

COURSE DESCRIPTION

This course provides a comprehensive understanding of building materials, structural systems, and building services essential for architectural design. It equips students with knowledge of the properties and applications of key construction materials such as lime, cement, gypsum, and mortar, and their role in components like arches, lintels, doors, windows, roofing, and flooring.

Students will explore the fundamentals of structural design through reinforced and prestressed concrete systems, including conceptual framing, load transfer, and detailing of beams, slabs, columns, and footings. The course further addresses essential building services including water supply, wastewater management, electrical systems, lighting, fire safety, and vertical transportation, with a strong emphasis on sustainability, efficiency, and integration with architectural form.

Through a hands-on integrated group project, students will synthesize their learning by developing small-scale architectural proposals that demonstrate coordination between material selection, structural logic, and service planning. The course prepares students to think holistically and develop performative, buildable, and environmentally responsive design solutions.

No. of Teaching Hours					Scheme of Examination						
Hours	Lecture	Construction Studio/ Design Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
								Review		Written	
					CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	2	2	2	6	300	300	600	100	100	100	3 Hours
Per semester	30	30	30	90							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Demonstrate knowledge of primary building materials (lime, cement, gypsum, mortar) and construction systems for basic building components such as arches, lintels, doors, windows, roofing, and flooring.
Apply	CO2	Apply fundamental concepts of structural configuration, including RCC design of beams, slabs, columns, and footings, and understand the principles of prestressed concrete systems in architectural design.
Create	CO3	Design water supply, plumbing, and waste management layouts considering environmental sustainability, site context, and integration with building form.
Apply	CO4	Understand and apply the principles of electrical systems, lighting design, fire safety, and vertical transportation in the planning and servicing of architectural spaces.
Create	CO5	Synthesize knowledge of building materials, structure, and services into integrated architectural design proposals with appropriate detailing, functionality, and performance.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	2	3	2	2	0	3	3	2	2	3	0	No Co-Relation
CO2	3	3	3	3	0	3	3	3	3	3	1	Low Co-Relation
CO3	3	3	3	3	0	3	3	3	2	3	2	Medium Co-Relation
CO4	3	3	3	3	0	3	3	3	3	3	3	High Co-Relation
CO5	2	3	3	3	0	3	3	3	2	2		

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	2	2	2	3	0	No Co-Relation
CO2	2	2	3	3	3	1	Low Co-Relation
CO3	3	2	2	3	3	2	Medium Co-Relation
CO4	3	2	2	3	3	3	High Co-Relation
CO5	2	3	3	2	3		

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Building Materials and Systems	CO1	1.1	Understand	Properties and applications of lime, cement, gypsum, mortar, and concrete in construction.	Class Exercise, Lecture	18
		1.2	Apply	Structural Openings and Joinery - Types and construction of arches, lintels, sills, timber doors (flush, panelled, glazed), and windows (casement, louvred, ventilators).	Class Exercise, Lecture	
		1.3	Apply	Roofing and Flooring Systems - Sloped roof types and truss systems with construction detailing	Class Exercise, Lecture	
		1.4	Apply	Introduction to flooring types such as wood, PCC, and terrazzo.	Class Exercise, Lecture	
2. Structural configuration and Conceptualization	CO2	2.1	Apply	Introduction to the concept of framed structures in RCC, understanding the types of formwork, Introduction to RCC slabs - one way and 2 way slabs	Class Exercise, Lecture	24
		2.2	Apply	R.C.C. staircases with respect to their uses, Cantilevered construction in RCC such as canopies and projections.	Class Exercise, Lecture	
		2.3	Apply	Frame systems, Orientation of structural elements. RCC: Limit State Design of Beams, Slabs and detailing. Limit State Design of Columns, Footings and detailing,	Class Exercise, Lecture	
3. Water Supply and Wastewater Management	CO3	3.1	Understand	Water Supply and Plumbing Systems - Basics of water demand and quality in buildings: relevance of physical, chemical properties, and drinking water standards, Overview of water treatment methods (sedimentation, filtration, disinfection) relevant to building services	Class Exercise, Fieldwork, Lecture	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Water Supply and Wastewater Management	CO3	3.2	Create	Water distribution methods: gravity vs pumping systems, Rain water harvesting systems, layout considerations for buildings and small urban blocks, Plumbing systems in buildings: schematic understanding of water supply and drainage in residential and multi-storey structures.	Class Exercise, Fieldwork, Lecture	18
		3.3	Evaluate	Wastewater and Solid Waste Management - Wastewater types and basic characteristics (focus on BOD and COD relevance), Septic tanks and soak pits: architectural detailing and placement, Safe wastewater disposal: integration with site design and landscape (e.g., reuse through irrigation),	Class Exercise, Fieldwork, Lecture	
3. Water Supply and Wastewater Management	CO3	3.4	Create	Introduction to solid waste management at the building/site scale: composting, vermicomposting, biogas, and sanitary landfilling, Role of architects in designing for integrated and sustainable waste and water systems	Class Exercise, Fieldwork, Lecture	
4. Building Systems and Electrical Systems in Buildings	CO4	4.1	Apply	Basics of electrical supply (single/three-phase), building electrical distribution, wiring systems, load calculation, safety measures, and lightning protection.	Class Exercise, Fieldwork, Lecture	18
		4.2	Apply	Lighting Systems - Fundamentals of illumination, lighting types and design, standards for lighting in buildings, use of luminaries and energy-efficient lighting strategies.	Class Exercise, Fieldwork, Lecture	
		4.3	Apply	Fire Safety and Vertical Transportation - Introduction to fire hazards, suppression systems, exits and fire safety standards. Overview of elevators, escalators, and travelators with design and installation considerations.	Class Exercise, Fieldwork, Lecture	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Integrated Group Project	CO5	5.1	Analyze	Development of a small-scale building design (e.g., a pavilion, community center, or low-rise mixed-use block) - Iterative design development integrating: Appropriate material selection, Structural layout and detailing, Plumbing, electrical, and fire safety systems.	Class Exercise	12

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Building Materials and Systems	Assignment Review, Jury, Quiz	18	50	Review (Portfolio/Digital Portfolio/ Report)	50
2. Structural configuration and Conceptualization	Assignment Review, Jury, Quiz	24	80	Review (Portfolio/Digital Portfolio/ Report)	80
3. Water Supply and Wastewater Management	Assignment Review, Jury, Quiz, Written test	18	70	Written Exam	50
				Review (Portfolio/Digital Portfolio/ Report)	20
4. Building Systems and Electrical Systems in Buildings	Assignment Review, Jury, Quiz, Written test	18	70	Written test	50
				Review (Portfolio/Digital Portfolio/ Report)	20
5. Integrated Group Project	Assignment Review, Jury, Time Problem	12	30	Review (Portfolio/Digital Portfolio/ Report)	30

REFERENCES

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2. Ching, F. D. K. (2014). Building construction illustrated (5th ed.). Wiley.
3. Rangwala, S. C. (2014). Engineering materials (32nd ed.). Charotar Publishing House.
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6. Krishna Raju, N. (2012). Prestressed concrete (5th ed.). Tata McGraw-Hill Education.
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12. Gupta, B. R. (2009). Electrical wiring, estimating and costing (6th ed.). S. K. Kataria & Sons.
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15. B., Reynolds, J. S., & McGuinness, W. J. (2006). Mechanical and electrical equipment for buildings (10th ed.). Wiley.
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Semester 04

HISTORY AND URBANISM 1

COURSE CODE: 25BAR403
CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION
This course introduces students to the evolution of urban form through comparative case studies across time and geography. Beginning with shared conceptual tools in urban morphology, it explores how cities have been shaped by imperial power, trade and exchange, modernist visions, and contemporary global challenges. Through thematic modules and collaborative analysis, students engage with cities not as isolated artifacts but as dynamic systems influenced by culture, politics, and infrastructure. The course fosters an understanding of urbanism as both a spatial and historical phenomenon, encouraging students to read cities critically — through maps, sections, timelines, and layered narratives.

No. of teaching hours					**Scheme of Examination**						
Hours	**Lecture**	**Construction Studio/Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	2	3	150	150	300	75	75	–	–
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Identify and describe key elements of urban form and morphology across historical and geographical contexts.
Analyze	CO2	Analyze and compare the spatial logics of different urban typologies — imperial, mercantile, modernist, and contemporary — through mapping and visual tools.
Evaluate	CO3	Interpret cities as historical texts, recognizing how planning, infrastructure, and cultural forces shape urban patterns and experiences.
Apply	CO4	Collaborate on case-based urban studies, producing layered outputs that synthesize architectural, social, and infrastructural dimensions.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO/ PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	1	1	2	1	3	0	1	0	1	0	0	No Co-Relation
CO2	1	2	3	1	3	1	1	1	2	1	1	Low Co-Relation
CO3	2	2	3	2	3	1	2	1	2	2	2	Medium Co-Relation
CO4	2	2	2	2	2	1	3	2	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	1	0	1	0	0	No Co-Relation
CO2	1	2	1	2	1	1	Low Co-Relation
CO3	2	2	1	2	2	2	Medium Co-Relation
CO4	2	3	1	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Reading the City	CO1	1.1	Understand	Identify and describe urban elements (nodes, edges, landmarks), spatial typologies (grid, radial, organic), and scalar relationships from building to region, using urban examples to build analytical vocabulary.	Lecture, Seminar, Class Exercise	9
2. Cities as Ideological Constructs	CO2	2.1	Analyze	Analyze how planning ideologies and governance systems shape spatial organization, using diverse cities as case studies for urban theories.	Lecture, Research, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Cities as Ideological Constructs		2.2	Analyze	Cities of Order: Analyze how classical and imperial planning assert order and power through geometry and monumentality in cities such as Rome, Paris, Beijing, and Lutyens' Delhi.	Lecture, Seminar, Self-directed Study	24
	CO2	2.3	Analyze	Cities of Exchange: Examine how trade, religion, and cultural hybridity shape urban morphologies and ritual geographies in cities like Venice, Baghdad, Zanzibar, and Istanbul.	Lecture, Seminar, Research	
		2.4	Analyze	Modern Urban Experiments: Assess modernist urban planning in 20th-century experiments such as Brasília, Chandigarh, and Addis Ababa, focusing on abstraction, efficiency, and control.	Lecture, Seminar, Research	
	CO3	2.5	Evaluate	Contemporary Urban Challenges: Critically reflect on how contemporary urban challenges — informality, speculative urbanism, infrastructural mega-projects, and climate pressures — shape cities like Dubai, Shenzhen, Lagos, and Jakarta.	Lecture, Seminar, Research	
3. Understanding Urban Evolution	CO3	3.1	Understand	Interpret how cities evolve through layered overlays of infrastructure, policy, cultural use, and everyday life, using comparative examples.	Lecture, Seminar, Research	12
		3.2	Apply	Examine how urban systems — transport, housing, waste, water — influence contemporary challenges and planning responses in global contexts.	Lecture, Seminar, Research	
	CO4	3.3	Create	Synthesize a multi-layered spatial reading of a city by integrating forces of planning ideology, infrastructure, and everyday spatial practices.	Seminar, Research, Self-directed Study	

SCHEME OF EVALUATION					
Module	CIE			SEE	
	Method of Evaluation	Hours	Marks	Method of Evaluation	Marks
1. Reading the City	Assignment Review, Quiz, Seminar, Written Assignment Review	9	30	Review (Portfolio/Digital Portfolio/ Report)	30
2. Cities as Ideological Constructs	Assignment Review, Quiz, Seminar, Written Assignment Review	24	75	Review (Portfolio/Digital Portfolio/ Report)	75
3. Understanding Urban Evolution	Assignment Review, Quiz, Seminar, Written Assignment Review	12	45	Review (Portfolio/Digital Portfolio/ Report)	45

REFERENCES

1. Kostof, Spiro. The City Shaped: Urban Patterns and Meanings Through History. Thames & Hudson, 1991.
2. Kostof, Spiro. The City Assembled: Elements of Urban Form Through History. Thames & Hudson, 1992.
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4. Koolhaas, Rem. Mutations. ACTAR, 2000.
5. Lewis Mumford – The City in History
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7. Vítor Oliveira – Urban Morphology: An Introduction to the Study of the Physical Form of Cities
8. Rem Koolhaas – Delirious New York
9. Benevolo, Leonardo. The Origins of Modern Town Planning. MIT Press, 1967.
10. Correa, Charles. A Place in the Shade: The New Landscape & Other Essays. Penguin India, 2010.
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14. Jacobs, Jane. The Death and Life of Great American Cities. Random House, 1961.
15. King, Anthony D. Colonial Urban Development: Culture, Social Power, and Environment. Routledge, 1976.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 04

INNOVATION LAB

COURSE CODE: 25BAR404
CREDITS: 03

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	Foundational knowledge of IoT

COURSE DESCRIPTION
This course introduces students to innovation and entrepreneurship as integral components of contemporary architectural practice. Emphasizing the intersection of design thinking, spatial strategies, and smart technologies such as the Internet of Things (IoT), the course challenges students to develop context-responsive, prototype-driven solutions for real-world problems. Through guided exploration, students will learn to identify unmet needs, frame opportunities, and translate ideas into tangible outcomes using the institution's innovation lab, digital fabrication infrastructure, and model-making workshop.

No. of teaching hours					**Scheme of Examination**						
Hours	**Lecture**	**Construction Studio/Design Studio/ Capstone Project**	**Lab/Workshop/Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	0	0	3	3	150	150	300	75	75	–	–
Per semester	0	0	45	45							

COURSE OUTCOMES		
Domain		**Outcomes**
Analyze	CO1	Analyze spatial or societal challenges and propose contextually relevant design-based solutions with entrepreneurial potential.
Apply	CO2	Integrate IoT systems and interactive components into architectural concepts to enhance performance or user engagement.
Apply	CO3	Apply fabrication techniques using tools such as 3D printers, laser cutters, and microcontrollers to develop functional prototypes.
Evaluate	CO4	Demonstrate the value and feasibility of their innovation through a structured design proposal and verbal/visual pitch presentation.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	3	3	3	0	0	0	0	0	2	3	0	No Co-Relation
CO2	2	2	3	2	0	2	0	0	2	3	1	Low Co-Relation
CO3	0	2	3	2	0	3	0	0	2	3	2	Medium Co-Relation
CO4	2	2	2	2	0	2	2	2	3	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	2	3	3	2	0	No Co-Relation
CO2	2	3	3	2	2	1	Low Co-Relation
CO3	2	3	3	2	3	2	Medium Co-Relation
CO4	2	3	3	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Design Innovation & Entrepreneurial Thinking	CO2	1.1	Understand	Principles of design thinking, identifying unmet needs, business model canvassing, and value proposition design. Case studies in spatial entrepreneurship.	Class Exercise	10
2. Smart Design with IoT	CO1	2.1	Apply	IoT concepts, sensors, actuators, and microcontrollers (e.g., Arduino). Embedding responsiveness in spaces and systems.	Class Exercise	10

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Prototyping & Fabrication	CO1	3.1	Apply	Concept development (sketches, mock-ups), digital fabrication (laser/3D/CNC), and physical computing (wiring, coding, testing).	Workshop	10
4. Innovation Project	CO1	4.1	Create	Students develop a project from problem identification to final prototype, culminating in a research dossier, working model, and business pitch.	Workshop	15

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Design Innovation & Entrepreneurial Thinking CO2	Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	30
2. Smart Design with IoT	Assignment Review	10	40	Review (Portfolio/Digital Portfolio/ Report)	40
3. Prototyping & Fabrication	Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	30
4. Innovation Project	Jury	15	50	Review (Portfolio/Digital Portfolio/ Report)	50

REFERENCES

1. Eric Ries, The Lean Startup, Crown Publishing, 2011.
2. Alexander Osterwalder & Yves Pigneur, Business Model Generation, Wiley, 2010.
3. Tom Igoe, Making Things Talk, Maker Media, 2017.
4. Arduino.cc, Instructables, and Tinkercad for IoT project references.
5. Journals and articles on spatial innovation and responsive architecture.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 04

INTERIOR STUDIO

COURSE CODE: 25BAR405
CREDITS: 03

Type of Course:	Professional Core Courses (PC)
Prerequisites:	Theory of design, Theories on Perception, Color theory, Ergonomic

COURSE DESCRIPTION

This course offers a comprehensive and integrated approach to Interior Architecture, blending creative exploration with technical proficiency. It examines how perception, psychology, and cultural context shape interior environments, with emphasis on historical and contemporary design styles.

Students will gain hands-on experience in essential interior design tools and methods, including technical drawing, digital visualization, lighting design, material application, and building systems. In addition, specialized modules in product design, furniture design, and interior journalism broaden the professional outlook.

The course addresses major sectors, residential, commercial, hospitality, healthcare, and exhibition design, guiding students through every stage of the design process, from concept to project completion.

By the end of the course, students will be equipped with the knowledge and skills to craft meaningful, functional, and aesthetically rich interior spaces and pursue diverse careers in interior design.

No. of teaching hours					Scheme of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Construction Studio/ Design Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	1	1	3	150	150	300	75	75	–	–
Per semester	15	15	15	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyze	CO1	Analyze how environmental, psychological, and cultural factors influence interior design decisions.
Understand	CO2	Demonstrate understanding of theories of perception, color, and diverse interior design philosophies and aesthetics, such as Wabi-Sabi, Minimalism, Scandinavian, Bauhaus, Maximalism, Biophilic Design, Vernacular Traditions, and Postmodernism, through creative and context-sensitive design applications.
Analyze	CO3	Apply knowledge of materials, construction systems, services, and structures in the development of interior spaces.
Analyze	CO4	Develop contextually and functionally appropriate interior design solutions across various sectors.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	3	0	2	3	3	0	0	0	0	0	0	No Co-Relation
CO2	3	1	2	0	3	0	0	0	1	1	1	Low Co-Relation
CO3	0	3	3	2	1	3	0	0	0	0	2	Medium Co-Relation
CO4	0	3	3	2	2	3	0	0	0	0	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO/ PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	1	1	3	2	0	No Co-Relation
CO2	2	2	2	3	2	1	Low Co-Relation
CO3	2	3	2	1	3	2	Medium Co-Relation
CO4	2	3	2	1	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1.Foundations of Interior Architecture	CO1	1.1	Analyze	History of Interior Architecture: Classical to Contemporary	Lecture / Seminar	6
		1.2	Analyze	Spatial Perception & Environmental Psychology	Lecture / Case Studies	
		1.3	Analyze	Cultural Identity, Ritual, and Symbolism in Interior Environments	Seminar / Discussion	
		1.4	Analyze	Vernacular Traditions in Indian and Global Contexts	Studio / Field Study	
		1.5	Analyze	Biophilic and Sustainable Spatial Concepts	Research + Workshop	
2. Visual Language, Color & Design Philosophies	CO2	2.1	Communicate	Elements & Principles of Interior Design	Lecture + Studio	9
		2.2	Apply	Color Theory, Theories of Perception and Sensory Design & Atmosphere Creation	Lecture / Application Exercise	
		2.3	Communicate	Interior Design Philosophies: Minimalism, Wabi-Sabi, Scandinavian, Bauhaus	Seminar / Lecture	
		2.4	Apply	Comparative Aesthetic Exploration: Maximalism, Postmodernism, Regionalism	Studio + Critique	
		2.5	Apply	Conceptual Design using Combined Aesthetic Languages	Studio / Capstone Exploration	
3. Materials, Services & Detailing	CO3	3.1	Understand	Interior Materials: Natural, Engineered, Recycled	Lab / studio / Material Lab	12
		3.2	Apply	Detailing: Partitions, Flooring, Ceilings, Joinery	Studio / Workshop	
		3.3	Understand	Lighting, HVAC, Plumbing Systems in Interiors	Lecture / Studio	
		3.4	Apply	Technical Drawing & Drafting: Conventions & Detailing	Workshop + Cad Lab	
		3.5	Understand	Smart Systems & Sustainable Building Integration	Lecture / Studio	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
4. Interior Typologies & Functional Design	CO4	4.1	Apply	Space Planning: Programming & Zoning Strategies	Studio / Design Critique	6
		4.2	Apply	Residential Design: Lifestyle & Personalization	Studio	
		4.3	Apply	Commercial & Retail Design: Branding & User Flow	Studio	
		4.4	Apply	Hospitality & Healthcare Interiors: Experience & Accessibility	Studio	
		4.5	Apply	Exhibition Design & Cultural Narratives	Studio / Storyboarding	
5. Structuring	CO2	5.1	Understand	Product & Furniture Design Basics	Studio / Workshop	12
		5.2	Apply	Interior Journalism: Writing, Critique & Visual Narratives	Seminar / Written Review	
	CO4	5.3	Apply	Verbal & Visual Design Communication (Mood boards, Diagrams, Renders)	Studio	
		5.4	Apply	Capstone Presentation + Peer Review	Studio	
		5.5	Apply	Portfolio Development	Self-directed study /Studio	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1.Foundations of Interior Architecture	Seminar	6	15	Review (Portfolio/Digital Portfolio/ Report)	15
2. Visual Language, Color & Design Philosophies	Quiz	9	30	Review (Portfolio/Digital Portfolio/ Report)	30
3. Materials, Services & Detailing	Written Assignment Review	12	40	Review (Portfolio/Digital Portfolio/ Report)	40
4. Interior Typologies & Functional Design	Time Problem	6	20	Review (Portfolio/Digital Portfolio/ Report)	20
5. Structuring	Jury	12	45	Review (Portfolio/Digital Portfolio/ Report)	45

REFERENCES

1. The Fundamentals of Interior Architecture" Author: John Coles & Naomi House
2. Interior Design Illustrated" Author: Francis D.K. Ching
3. Architecture: Form, Space and Order" Author: Francis D.K. Ching
4. The Eyes of the Skin: Architecture and the Senses" Author: Juhani Pallasmaa
5. Color, Space, and Style: All the Details Interior Designers Need to Know but Can Never Find" Author: Chris Grimley & Mimi Love
6. Time-Saver Standards for Interior Design and Space Planning" Author: Joseph De Chiara, Julius Panero, and Martin Zelnik
7. Materials for Interior Environments" Author: Corky Binggeli
8. Building Systems for Interior Designers" Author: Corky Binggeli
9. Experiencing Architecture" Author: Steen Eiler Rasmussen
10. Design Thinking for the Greater Good" Author: Jeanne Liedtka et al.
11. The Poetics of Space" Author: Gaston Bachelard

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 05

(LEVEL 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab/ Workshop/ Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR501	Architectural Design 3: Vertical Studio	9	1	4	4	9	450	450	900	225	225	-	-
25BAR502	Environmental Systems and Construction Practices	6	2	2	2	6	300	300	600	100	100	100	3 hours
25BAR503	History and Urbanism 2	3	1	0	2	3	150	150	300	75	75	-	-
25BAR504	Architectural Construction Documentation	4	1	3	0	4	200	200	400	100	100	-	-
25BAR505	Professional Ethics	2	1	0	1	2	100	100	200	50	50	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
-	Co-op Prep.**	0	0	0	1	1	-	-	-	-	-	-	-
Total		**26**											

**** One elective course of 2 credits is recommended***
***** Only applicable for institutes offering Co-op Track***

Semester 05

ARCHITECTURAL DESIGN 3: VERTICAL STUDIO

COURSE CODE: 25BAR501

CREDITS: 09

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION

This studio challenges students to design medium to large-scale architectural projects that are socially inclusive, environmentally responsive, and contextually grounded. Emphasizing systems thinking alongside design exploration, the course foregrounds the ethical and cultural responsibilities of architecture in shaping collective life. Students engage with real and speculative programs that respond to diverse user needs, regional ecologies, and social dynamics. Through iterative development, material inquiry, and multi-scalar representation, they learn to integrate spatial form, structural logic, and environmental systems into coherent design propositions. The studio promotes a reflective design process rooted in critical observation, contextual sensitivity, and a commitment to sustainable and equitable futures.

No. of teaching hours					Scheme of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Construction Studio/ Design Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	4	4	9	450	450	900	225	225	–	–
Per semester	15	60	60	135							

COURSE OUTCOMES

Domain	Outcomes	
Analyze	CO1	Demonstrate the ability to move between intuitive design exploration and rational systems thinking — integrating conceptual clarity with structural, spatial, and environmental logics.
Apply	CO2	Design spaces that address diverse user needs through inclusive, adaptable, and contextually responsive spatial strategies.
Create	CO3	Employ multi-scalar representation techniques (models, sections, diagrams, drawings) to iteratively develop and communicate architectural ideas across levels of complexity.
Evaluate	CO4	Synthesize precedents, typological analysis, and site-specific insights to generate coherent architectural propositions that balance form, function, and tectonic expression.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	3	3	3	1	3	1	1	2	3	0	No Co-Relation
CO2	3	3	2	2	2	2	1	1	2	2	1	Low Co-Relation
CO3	1	3	2	1	1	2	2	0	3	2	2	Medium Co-Relation
CO4	2	3	3	2	3	2	2	1	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	2	3	2	2	0	No Co-Relation
CO2	3	2	2	3	2	1	Low Co-Relation
CO3	2	3	2	1	3	2	Medium Co-Relation
CO4	2	2	2	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Making	CO1	1.1	Apply	Develop spatial models to explore structural systems, envelope strategies, and vertical circulation.	Studio, Workshop	25
		1.2	Analyze	Investigate material behaviour and structural-logical relationships at larger scales (1:100 to 1:50).	Studio, Workshop	
	CO3	1.3	Create	Construct physical and digital models to test how form and structure operate across section and plan.	Studio, Workshop	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Sensing	CO2	2.1	Understand	Identify and describe diverse user groups and their spatial needs across time and activity patterns.	Fieldwork, Studio, Seminar	20
		2.2	Apply	Design flexible, inclusive spatial configurations that accommodate overlap and change in user behaviour.	Fieldwork, Studio, Seminar	
		2.3	Evaluate	Assess accessibility, equity, and responsiveness of proposed spaces for varied users.	Fieldwork, Studio, Seminar	
3. Observing	CO4	3.1	Analyze	Extend precedent studies to hybrid typologies suited for complex urban or institutional sites.	Studio, Research, Self-directed Study	25
		3.2	Evaluate	Observe and assess material and assembly strategies for their expressive and functional potential.	Studio, Research, Self-directed Study	
		3.2	Understand	Trace how spatial logics in precedents are influenced by program, context, and cultural specificity.	Studio, Research, Self-directed Study	
4. Iterating	CO1	4.1	Analyze	Refine spatial layout and programmatic organization through iterative critique and feedback.	Studio, Self-directed Study	40
	CO3	4.2	Create	Develop sectional complexity and volumetric articulation through serial drawings and modelling.	Studio, Self-directed Study	
		4.3	Apply	Integrate circulation, structure, and enclosure through coordinated iterations.	Studio, Self-directed Study	
		4.4	Evaluate	Test and assess alternatives for form, system logic, and user experience.	Studio, Self-directed Study	
5. Conceptualising	CO4	5.1	Create	Synthesize research, typological logic, and spatial strategy into a coherent design proposition.	Studio, Self-directed Study	
		5.2	Communicate	Build a clear conceptual narrative that ties form, use, and structure across all design scales.	Studio, Self-directed Study	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Conceptualising	CO3	5.3	Communicate	Use multi-scalar drawings, diagrams, and models to communicate architectural intent.	Studio, Workshop, Self-directed Study	25
	CO4	5.4	Communicate	Deliver a juried presentation articulating spatial logic, design process, and critical position.	Studio, Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Making	Assignment Review, Jury, Time Problem	25	70	Review (Portfolio/Digital Portfolio/ Report)	50
2. Sensing	Assignment Review, Jury, Seminar, Time Problem	20	60	Review (Portfolio/Digital Portfolio/ Report)	50
3. Observing	Assignment Review, Jury, Seminar, Time Problem	25	70	Review (Portfolio/Digital Portfolio/ Report)	60
4. Iterating	Assignment Review, Jury, Time Problem	40	150	Review (Portfolio/Digital Portfolio/ Report)	160
5. Conceptualising	Assignment Review, Jury, Time Problem	25	100	Review (Portfolio/Digital Portfolio/ Report)	130

REFERENCES

1. Banham, Reyner. The Architecture of the Well-Tempered Environment. 2nd ed., University of Chicago Press, 1984.
2. Frampton, Kenneth. “Towards a Critical Regionalism: Six Points for an Architecture of Resistance.” In The Anti-Aesthetic: Essays on Postmodern Culture, edited by Hal Foster, Bay Press, 1983.
3. Frampton, Kenneth. Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture. MIT Press, 1995.
4. Lang, Jon, Madhavi Desai, and Miki Desai. Architecture and Independence: The Search for Identity – India 1880 to 1980. Oxford University Press, 1997.
5. Mehrotra, Rahul. Architecture in India Since 1990. Pictor, 2011.
6. Koolhaas, Rem, and Bruce Mau. S, M, L, XL. The Monacelli Press, 1995.

7. Moneo, Rafael. Theoretical Anxiety and Design Strategies in the Work of Eight Contemporary Architects. MIT Press, 2004.
8. Moneo, Rafael. Rafael Moneo: Remarks on 21 Works. The Monacelli Press, 2010.
9. Unwin, Simon. Twenty Buildings Every Architect Should Understand. 2nd ed., Routledge, 2014.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 05

ENVIRONMENTAL SYSTEMS AND CONSTRUCTION PRACTICES

COURSE CODE: 25BAR502

CREDITS: 06

Type of Course:	Building Sciences and Applied Engineering (BS and AE)
Prerequisites:	–

COURSE DESCRIPTION
This course offers an integrated understanding of environmental design, structural systems, project costing, and acoustics within architectural practice. Students will explore passive design strategies at community and building scales for different climatic contexts and engage with the development and application of environmental laws, policies, and energy codes relevant to the Indian building industry. The course introduces the principles and methods of prestressed concrete (PSC), steel connections, and innovative structural systems such as shells, domes, and space frames. It further develops skills in estimation, costing, valuation, and tendering, including the preparation of Bills of Quantities (BoQs), cost analysis, and legal documentation. Finally, the course examines architectural acoustics, emphasizing sound behaviour, room acoustics, noise control, and the acoustic design of large spaces like auditoriums. By combining technical knowledge with regulatory awareness and environmental sensitivity, the course prepares students for holistic and performance-driven design practices.

No. of teaching hours					**Scheme of Examination**						
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	2	2	2	6	300	300	600	100	100	100	3 hours
Per semester	30	30	30	60							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Apply passive design strategies and interpret environmental laws and energy codes relevant to the Indian building industry.
Apply	CO2	Understand and apply concepts of prestressed concrete, steel structures, and advanced structural systems using IS codes.
Create	CO3	Develop quantity estimates, construct Bills of Quantities (BoQs), write specifications, analyze project costs, and interpret tendering and valuation procedures.
Create	CO4	Design acoustically efficient spaces by applying principles of sound behaviour, noise control, and room acoustics.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	3	3	3	3	0	2	2	2	2	2	0	No Co-Relation
CO2	3	3	3	3	0	3	3	3	3	3	1	Low Co-Relation
CO3	3	3	3	3	0	3	3	3	3	3	2	Medium Co-Relation
CO4	1	3	3	3	0	3	3	3	3	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	2	2	3	3	0	No Co-Relation
CO2	3	3	3	3	3	1	Low Co-Relation
CO3	3	3	3	3	3	2	Medium Co-Relation
CO4	2	2	3	1	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Passive design strategies	CO1	1.1	Apply	Introduce passive design strategies at a community level, block design, street layout, landscaping, etc, for creating comfort conditions. Application of the strategies learnt for developing design strategies for different climates.	Class Exercise, Lecture	15

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Passive design strategies	CO1	1.2	Understand	Introduction to a short history of the development of environmental laws and policies. Understand the international, national, and local laws and codes relevant to the Indian building industry. Introduction to energy codes for India. Understand the implications of energy-related codes in the Indian scenario.	Class Exercise, Lecture	
2. Structures	CO2	2.1	Apply	PSC: Introduction, Principles, Materials, System & Methods of pre-stressing, Losses of Pre-stress, Load Balancing concept, Analysis of sections: Concentric and Eccentric.	Class Exercise, Lecture	30
		2.2	Apply	Steel connections: Bolted connections, types of bolts. Welded connections: types of welds, Introduction of IS standards; IS:800:2007, Steel table code. Design Methodologies of Tension & Compression members (Generalized concepts with example solutions).	Class Exercise, Lecture	
		2.3	Understand	Concepts of shell, folded plates, domes, vaults, flat slabs, Grid slabs, and tall buildings. Tensile structures and space frames.	Class Exercise, Lecture	
3.Estimation, Costing, Valuation, and Tendering	CO3	3.1	Create	Quantity Estimation and Specification - Purpose and types of estimates, Approximate estimation methods: plinth area, cubic rate, unit rate, bay method, Detailed quantity estimation for building components, Bill of Quantities (BoQ), abstract of estimate, and units of measurement, Writing basic material and work specifications.	Class Exercise, Fieldwork, Lecture	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3.Estimation, Costing, Valuation, and Tendering	CO3	3.2	Evaluate	Costing and Valuation - Cost components: material, labour, equipment, overheads, contractor's profit, Principles of measurement and billing, Introduction to valuation: purpose, methods (income, cost, market), and legal considerations,	Class Exercise, Lecture	30
		3.3	Create	Tendering and Documentation - Types and classification of tenders, Tendering process and key components of tender documents, Tender evaluation and awarding procedures	Class Exercise, Lecture	
4. Architectural Acoustics	CO4	4.1	Apply	Fundamentals of Sound and Hearing - The nature of sound - propagation of sound-velocity, frequency and wavelength of sound. Sound pressure - Sound intensity and loudness- Decibel and Phons- The human ear and hearing characteristics - Instruments and equipments.	Class Exercise, Lecture	15
		4.2	Analyze	Introduction to solid waste management at the building/site scale: composting, vermicomposting, biogas, and sanitary landfilling, Role of architects in designing for integrated and sustainable waste and water systems	Class Exercise, Lecture	
		4.3	Create	Noise and Environmental Sound Control - Sources of noise, Impact, Noise mitigation strategies, Sound insulation and transmission, Acoustical defects in the enclosed spaces.	Class Exercise, Lecture	
		4.4	Create	Acoustical Design of Large Spaces - Design Principles of Auditorium, Different acoustical defects in auditoriums and their solutions, acoustical correction design and modification techniques.	Class Exercise, Fieldwork, Lecture	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Passive Design Strategies	Assignment Review, Jury, Quiz, Written Test	15	60	Written Exam	50
				Review (Portfolio/Digital Portfolio/ Report)	20
2. Structures	Assignment Review, Jury, Quiz	30	90	Review (Portfolio/Digital Portfolio/ Report)	80
3.Estimation, Costing, Valuation, and Tendering	Assignment Review, Jury, Quiz	30	90	Review (Portfolio/Digital Portfolio/ Report)	80
4. Architectural Acoustics	Assignment Review, Jury, Quiz, Written Test	15	60	Written Exam	50
				Review (Portfolio/Digital Portfolio/ Report)	20

REFERENCES

1. Givoni, B. (1994). Passive and low energy cooling of buildings. John Wiley & Sons.
2. Olgyay, V. (2015). Design with climate: Bioclimatic approach to architectural regionalism. Princeton University Press.
3. Ministry of Power, Government of India. (2018). Eco-Niwas Samhita: Energy Conservation Building Code for Residential Buildings. Bureau of Energy Efficiency.
4. Bureau of Energy Efficiency. (2017). Energy Conservation Building Code (ECBC) 2017. Ministry of Power, Government of India.
5. Ministry of Environment, Forest and Climate Change. (2021). Environmental laws and policies in India: A compendium. Government of India.
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7. IS 800:2007. (2007). General Construction in Steel – Code of Practice. Bureau of Indian Standards.
8. Bhavikatti, S. S. (2012). Design of steel structures. I.K. International Publishing House.
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10. Dutta, B. N. (2016). Estimating and costing in civil engineering (28th ed.). UBS Publishers.
11. Rangwala, S. C. (2019). Estimating, costing and valuation. Charotar Publishing House.
12. Egan, M. D. (2007). Architectural acoustics (2nd ed.). J. Ross Publishing.
13. Long, M. (2014). Architectural acoustics (2nd ed.). Academic Press.

14. Barron, M. (2010). Auditorium acoustics and architectural design (2nd ed.). Taylor & Francis.

15. Rossing, T. D. (Ed.). (2007). Springer handbook of acoustics. Springer.

16. IS 2526:1963. (1963). Code of practice for acoustical design of auditoriums and conference halls. Bureau of Indian Standards.

17. Bureau of Indian Standards. (2016). National Building Code of India – Part 8: Building Services, Section 4 – Acoustics, Sound Insulation and Noise Control.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 05

HISTORY AND URBANISM 2

COURSE CODE*:* **25BAR503**
CREDITS*:* **03**

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION
This course explores the spatial, cultural, and political dimensions of South Asian urbanism beyond linear or Eurocentric narratives. It examines how urban life in the subcontinent has been shaped by agrarian foundations, sacred geographies, colonial interventions, post-independence planning visions, and everyday forms of resistance and negotiation. Students learn to interpret cities as layered texts, where formal plans intersect with informal practices, producing complex and contested urban landscapes.

No. of Teaching Hours					**Scheme of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	2	3	150	150	300	75	75	–	–
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyze	CO1	Interpret South Asian cities as complex and layered urban entities shaped by diverse historical forces. Identify and compare the trajectories and elements of city-making.
Evaluate	CO2	Critically evaluate colonial and postcolonial planning ideologies and their spatial impact on South Asian urbanism.
Analyze	CO3	Construct critical frameworks for analyzing urban informality, ritual, resistance, and everyday practices that shape city life.
Create	CO4	Develop visual and reflective methods for reading, mapping, and representing cities across historical and contemporary contexts.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING											
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**
CO1	0	0	1	1	3	0	0	0	1	0	0 No Co-Relation
CO2	1	0	2	1	3	0	1	0	1	0	1 Low Co-Relation
CO3	2	0	3	1	3	0	1	0	1	1	2 Medium Co-Relation
CO4	1	1	2	1	2	0	1	0	2	1	3 High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING						
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**
CO1	2	0	0	0	1	0 No Co-Relation
CO2	1	0	0	1	1	1 Low Co-Relation
CO3	2	1	0	2	2	2 Medium Co-Relation
CO4	2	2	0	1	3	3 High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Decoding the South Asian Urban Fabric	CO1	1.1	Analyze	Interpret ritual spaces, community morphologies, and socio-ecological patterns in South Asian cities.	Lecture, Seminar, Research	10
	CO3	1.2	Evaluate	Evaluate how non-Western vocabularies and lived practices shape the spatial logic of urban form.	Seminar, Self-directed Study	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Cities as Ideological Constructs	CO2	2.1	Analyze	Analyze multiple historical paradigms of South Asian city-making as coexisting spatial ideologies.	Lecture, Seminar, Research	20
	CO1	2.2	Understand	Agrarian Urbanism and Sacred Geographies: Explain how agrarian practices and sacred geographies organize urban space through caste, ritual, and pilgrimage.	Lecture, Class Exercise, Seminar	
	CO2	2.3	Analyze	Colonial Urban Forms and Orders: Examine the spatial strategies of colonial rule using examples such as port cities, cantonments, and civil lines.	Lecture, Research, Seminar	
	CO2	2.4	Evaluate	Postcolonial Urban Experiments: Evaluate how postcolonial planning ideals—such as planned capitals, socialist-era visions, and institutional frameworks—interact with urban realities and lived experience.	Lecture, Seminar, Self-directed Study	
3. City Beyond the Plan	CO1	3.1	Analyze	Trace how South Asian cities evolve through layered histories of infrastructure, migration, and socio-ecological systems.	Lecture, Class Exercise, Research	15
	CO3	3.2	Apply	Map the role of informal practices and everyday negotiations in shaping urban experience beyond formal plans.	Workshop, Fieldwork, Class Exercise	
		3.3	Analyze	Examine how informal housing, labour, gendered practices, and memory contribute to contested and adaptive urban forms.	Fieldwork, Seminar, Research	
	CO2	3.4	Evaluate	Assess how bottom-up urbanism intersects with state-led planning in shaping spatial realities.	Lecture, Class Exercise, Seminar	
	CO4	3.5	Create	Synthesize insights from historical and contemporary readings to interpret urban change through socio-ecological and policy lenses.	Seminar, Workshop, Research	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Decoding the South Asian Urban Fabric	Assignment Review, Quiz, Seminar, Written Assignment Review	10	30	Review (Portfolio/Digital Portfolio/ Report)	30
2. Cities as Ideological Constructs	Assignment Review, Quiz, Seminar, Written Assignment Review	20	60	Review (Portfolio/Digital Portfolio/ Report)	60
3. City Beyond the Plan	Assignment Review, Quiz, Seminar, Written Assignment Review	15	60	Review (Portfolio/Digital Portfolio/ Report)	60

REFERENCES

1. Amin, Ash, and Nigel Thrift. Cities: Reimagining the Urban. Polity, 2002.
2. Chattopadhyay, Swati. Representing Calcutta: Modernity, Nationalism and the Colonial Uncanny. Routledge, 2005.
3. Dossal, Mariam. The City in Action: Bombay Struggles for Power. Oxford University Press, 2010.
4. Eck, Diana L. India: A Sacred Geography. Harmony, 2012.
5. Hosagrahar, Jyoti. Indigenous Modernities: Negotiating Architecture and Urbanism. Routledge, 2005.
6. King, Anthony D. Colonial Urban Development: Culture, Social Power and Environment. Routledge, 1976.
7. Mitra, Sudeshna. Subaltern Urbanism: Readings and Reflections from India. Springer, 2020.
8. Narayanan, Yamini. Religion, Heritage and the Sustainable City: Hinduism and Urbanisation in Jaipur. Routledge, 2015.
9. Roy, Ananya. Urban Informality: Transnational Perspectives from the Middle East, Latin America, and South Asia. Lexington Books, 2004.
10. Spiro Kostof. The City Shaped: Urban Patterns and Meanings Through History. Thames & Hudson, 1991.
11. Spiro Kostof. The City Assembled: The Elements of Urban Form Through History. Thames & Hudson, 1992.
12. Sundaram, Ravi. Pirate Modernity: Media Urbanism in Delhi. Routledge, 2009.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed

Semester 05

ARCHITECTURAL CONSTRUCTION DOCUMENTATION

COURSE CODE*:* **25BAR504**

CREDITS*:* **04**

Type of Course:	Building Sciences and Applied Engineering (BS and AE)
Prerequisites:	Design, Drafting, Construction, CAD Basics

COURSE DESCRIPTION
This course equips students with the technical knowledge and drafting skills required to produce professional architectural construction documents. Emphasizing industry standards, building codes, and local regulations, it focuses on translating design concepts into precise working drawings, including sanction drawings, plans, sections, elevations, and construction details, for effective communication with contractors, consultants, and approving authorities**.**

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	3	0	4	200	200	400	100	100	–	–
Per semester	15	45	0	60							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyze	CO1	Prepare complete and code-compliant architectural working drawings—including sanction drawings, plans, sections, elevations, and details—that clearly communicate design intent.
Understand	CO2	Utilize CAD/BIM tools effectively to generate precise, professional-quality construction documentation.
Analyze	CO3	Integrate building components, materials, and systems accurately into working drawings with attention to constructability and technical standards.
Analyze	CO4	Coordinate architectural documentation with structural, MEP, and regulatory requirements to ensure consistency and interdisciplinary alignment.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	3	2	1	2	3	2	3	1	2	0	No Co-Relation
CO2	1	3	2	1	1	3	2	2	1	3	1	Low Co-Relation
CO3	1	3	2	2	2	3	1	2	1	2	2	Medium Co-Relation
CO4	2	3	3	2	2	3	2	3	2	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	3	2	2	3	0	No Co-Relation
CO2	1	3	3	1	2	1	Low Co-Relation
CO3	2	2	2	1	3	2	Medium Co-Relation
CO4	2	3	3	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Introduction to Working Drawings & Sanction Drawings	CO1	1.1	Understand	Purpose and types of architectural drawings: conceptual, presentation, sanction, and working drawings.	Lecture	8
	CO4	1.2	Apply	Understanding approval/sanction drawings: formats, regulations, submission requirements	Lecture / Seminar	
		1.3	Analyze	Drawing standards and regulatory frameworks (NBC, IS 962, IS 10711)	Discussion	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Drafting Standards and Documentation	CO1	2.1	Understand	National and international drawing standards (IS 962, NBC 2016, UDS, ISO, BS)	Lecture, Seminar	8
	CO2	2.2	Apply	"Drawing conventions: Line weights, line types, hatching, symbols, scales, fonts, annotations	Studio, Workshop	
		2.3	Apply	Sheet layout, title blocks, graphic scales, north points, legends, abbreviations	Workshop, Class Exercise	
	CO1	2.4	Apply	Dimensioning and notation standards	Studio, Class Exercise	
	CO2	2.5	Apply	Drawing index, sheet numbering protocols, and revision tracking	Workshop	
3. Plans, Sections, and Elevations	CO3	3.1	Apply	Floor plans: wall types, furniture, services, symbols	Studio, Workshop	12
		3.2	Apply	Section drawings: staircases, toilets, walls—materials and levels	Studio, Class Exercise	
		3.3	Apply	Elevations: façades, materials, sun shading, level markers	Studio, Workshop	
	CO3	3.4	Analyze	Coordination with drawing tags, schedules, annotations	Studio, Seminar	
4. Construction Details and Component Integration	CO3	4.1	Apply	Wall sections: material layers, insulation, waterproofing, finishes	Studio, Workshop	16
		4.2	Apply	Construction junctions: wall-to-roof, floor-to-wall, beam-column	Studio, Class Exercise	
		4.3	Apply	Staircase details: tread-riser, nosing, handrail fixing	Studio, Workshop	
		4.4	Apply	Door/window/partition: joinery, fixing, schedule referencing	Studio, Self-directed Study	
		4.5	Apply	Toilet/kitchen: slope, waterproofing, fixture fixing	Studio, Fieldwork	
	CO4	4.6	Analyze	BOQs and schedules: quantification, tagging	Workshop	
5. Services Coordination and Documentation	CO4	5.1	Understand	MEP drawing basics: plumbing, electrical, HVAC components	Lecture	
	CO3	5.2	Apply	Plumbing layouts: drainage, fixture positions, vent pipes	Studio, Workshop	
		5.3	Apply	Electrical layouts: light points, switches, conduits, DB boards	Studio, Class Exercise	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Services Coordination and Documentation	CO4	5.4	Apply	HVAC layouts: duct placement, symbols	Lecture, Studio	16
		5.5	Analyze	Coordination with structural & service drawings	Seminar, Studio	
	CO2	5.6	Apply	Layer naming, XRefs, file naming, export conventions	Workshop	
		5.7	Evaluate	Drawing set compilation: cross-referencing, indexing, formatting	Studio, Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Introduction to Working Drawings & Sanction Drawings	Assignment Review	8	30	Review (Portfolio/Digital Portfolio/ Report)	30
2. Drafting Standards and Documentation	Time Problem	8	30	Review (Portfolio/Digital Portfolio/ Report)	30
3. Plans, Sections, and Elevations	Time Problem	12	40	Review (Portfolio/Digital Portfolio/ Report)	40
4. Construction Details and Component Integration	Time Problem	16	50	Review (Portfolio/Digital Portfolio/ Report)	50
5. Services Coordination and Documentation Management	Assignment Review	16	50	Review (Portfolio/Digital Portfolio/ Report)	50

REFERENCES

1. Building Construction Illustrated by Francis D.K. Ching
2. Architectural Working Drawings by Ralph W. Liebing
3. The Professional Practice of Architectural Working Drawings by Osamu A. Wakita & Richard M. Linde
4. Architect's Data by Ernst Neufert
5. Metric Handbook: Planning and Design Data by David Adler (Editor), A.J.
6. National Building Code of India (NBC 2016) by Bureau of Indian Standards (BIS)
7. IS 962:1989 – Code of Practice for Architectural and Building Drawings by BIS
8. IS 10711 & IS 1962 Series – Technical Drawing Conventions by BIS

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 05

PROFESSIONAL ETHICS

COURSE CODE: 25BAR505

CREDITS: 02

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	–

COURSE DESCRIPTION
This course explores the foundations of ethics, moral philosophy, and the application of ethical reasoning in personal, social, and professional contexts. It aims to foster critical thinking, moral responsibility, and awareness of ethical challenges in contemporary society, with special focus on professional ethics in varied domains.

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	1	2	100	100	200	50	50	–	–
Per semester	15	0	15	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Understand and explain foundational ethical theories and moral philosophies from both Western and Eastern traditions.
Analyze	CO2	Critically analyse ethical dilemmas using appropriate frameworks and apply ethical reasoning in personal, professional, and societal contexts.
Apply	CO3	Demonstrate awareness of professional codes of ethics and practice responsible decision-making aligned with integrity, accountability, and public welfare.
Evaluate	CO4	Evaluate contemporary ethical challenges, such as climate change, digital privacy, and social justice, and articulate informed, morally responsible perspectives.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	3	0	0	0	2	0	0	0	2	0	0	No Co-Relation
CO2	3	0	3	0	0	0	0	0	3	0	1	Low Co-Relation
CO3	3	0	0	0	0	0	2	2	0	0	2	Medium Co-Relation
CO4	3	0	2	2	0	0	0	0	3	0	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	0	0	0	3	2	0	No Co-Relation
CO2	0	0	0	3	3	1	Low Co-Relation
CO3	0	0	0	3	2	2	Medium Co-Relation
CO4	2	0	0	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1.Foundations and Theories of Ethics	CO1	1.1	Analyze	Definition, scope, and types of ethics (personal, social, professional)	Lecture / Seminar	4
		1.2	Analyze	Morality vs. ethics vs. law	Lecture / Case Studies	
		1.3	Analyze	Cultural relativism and universal values	Seminar / Discussion	
		1.4	Analyze	Historical overview of ethical thought	Studio / Field Study	
		1.5	Analyze	"Major ethical theories: Utilitarianism, Deontology, Virtue ethics, Ethics of care, Eastern ethics	Research + Workshop	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Professional and Organizational Ethics	CO2	2.1	Communicate	Codes of Conduct in Various Professions (e.g., Architecture, Design, Engineering, Business)	Lecture + Studio	6
		2.2	Apply	Responsibilities to Clients, Community, and Environment	Lecture / Application Exercise	
		2.3	Communicate	Conflicts of Interest, Confidentiality, and Whistleblowing	Seminar / Lecture	
		2.4	Apply	Workplace Ethics and Organizational Culture	Studio + Critique	
		2.5	Apply	Academic and Research Integrity	Studio / Capstone Exploration	
3. Ethical Decision-Making and Critical Thinking	CO3	3.1	Understand	Identifying Ethical Dilemmas	Lab / studio / Material Lab	8
		3.2	Apply	Ethical Reasoning Models (e.g., Kidder's Ethical Decision-Making Model, Potter Box)	Studio / Workshop	
		3.3	Understand	Role of Intuition, Logic, and Emotion	Lecture / Studio	
		3.4	Apply	Groupthink and Moral Disengagement	Workshop + Cad Lab	
		3.5	Understand	Case Studies and Role Plays	Lecture / Studio	
4. Ethics in Society and Public Life	CO4	4.1	Apply	Civic Ethics: Rights and Duties	Studio /Design Critique	4
		4.2	Apply	Media, Communication, and Ethical Persuasion	Studio	
		4.3	Apply	Ethical Leadership and Public Accountability	Studio	
		4.4	Apply	Corruption and Transparency	Studio	
		4.5	Apply	Digital Citizenship and Responsibility	Studio / Storyboarding	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Contemporary Issues in Ethics	CO2	5.1	Apply	Environmental and Climate Ethics	Studio / Workshop	8
		5.2	Apply	Artificial Intelligence, Technology, and Data Privacy	Seminar / Written Review	
	CO4	5.3	Apply	Gender Equity, Diversity, and Inclusion	Studio	
		5.4	Apply	Globalization, Consumerism, and Ethical Consumption	Studio	
		5.5	Apply	Human Rights, Social Justice, and Sustainable Development	Self-directed study /Studio	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Introduction to Working Drawings & Sanction Drawings1.Foundations and Theories of Ethics	Seminar	4	10	Review (Portfolio/Digital Portfolio/ Report)	10
2. Drafting Standards and Documentation2. Professional and Organizational Ethics	Quiz	6	20	Review (Portfolio/Digital Portfolio/ Report)	20
3. Ethical Decision-Making and Critical Thinking	Written Assignment Review	8	30	Review (Portfolio/Digital Portfolio/ Report)	30
4. Ethics in Society and Public Life	Time Problem	4	10	Review (Portfolio/Digital Portfolio/ Report)	10
5. Contemporary Issues in Ethics	Jury	8	30	Review (Portfolio/Digital Portfolio/ Report)	30

REFERENCES

1. The Fundamentals of Interior Architecture" Author: John Coles & Naomi House
2. Interior Design Illustrated" Author: Francis D.K. Ching
3. Architecture: Form, Space and Order" Author: Francis D.K. Ching
4. The Eyes of the Skin: Architecture and the Senses" Author: Juhani Pallasmaa

5. Color, Space, and Style: All the Details Interior Designers Need to Know but Can Never Find" Author: Chris Grimley & Mimi Love
6. Time-Saver Standards for Interior Design and Space Planning" Author: Joseph De Chiara, Julius Panero, and Martin Zelnik
7. Materials for Interior Environments" Author: Corky Binggeli
8. Building Systems for Interior Designers" Author: Corky Binggeli
9. Experiencing Architecture" Author: Steen Eiler Rasmussen
10. Design Thinking for the Greater Good" Author: Jeanne Liedtka et al.
11. The Poetics of Space" Author: Gaston Bachelard

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 06

(Interdisciplinary Track) (Level 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio / Capstone Project	Lab/ Workshop/ Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
										Review		Written	
							CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration
25BAR601	Masterclass	10	1	4	5	10	500	500	1000	250	250	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
25BAR YY EX	Interdisciplinary Elective	4	-	-	-	4	200	200	400	100	100	-	-
Total		26											

Semester 06 (Co-Op Track)

(LEVEL 2)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR601	Masterclass	10	1	4	5	10	500	500	1000	250	250	-	-
25BAR605	Co-operative Learning	16	-	-	-	-*	800	800	1600	400	400	-	-
Total		**26**											

*** As per regulations**

Semester 06

MASTERCLASS

COURSE CODE: 25BAR601
CREDITS: 10

Type of Course:	Professional Core Courses (PC)
Prerequisites:	–

COURSE DESCRIPTION

This studio offers students the opportunity to work under the mentorship of distinguished architects and thinkers from India and abroad. Through a series of intensive engagements, students are exposed to diverse design philosophies, methods, and value systems. Each iteration of the Masterclass is shaped around the thematic and methodological approach of the invited practitioner(s), offering students a chance to work on complex, real or speculative design challenges.

The course emphasizes situated design thinking — responding to context, community, material, and narrative. Projects may be located anywhere and vary in scale and scope, depending on the thematic brief. Faculty-led pre- and post-engagement phases frame the studio with research, site/context immersion, prototyping, and reflection. Students are expected to synthesize conceptual, contextual, and technical dimensions of design to produce coherent architectural propositions.

No. of Teaching Hours					Scheme of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Construction Studio/ Design Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	4	5	10	500	500	1000	250	250	–	–
Per semester	15	60	75	150							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyze	CO1	Demonstrate an understanding of diverse architectural approaches by engaging with visiting architects and synthesizing their philosophies into site-responsive design propositions.
Evaluate	CO2	Formulate and develop a spatial design brief that responds to contextual cues—geographic, cultural, or programmatic—through research, mapping, and conceptual framing.
Apply	CO3	Translate conceptual frameworks into architectural proposals through an iterative design process involving sketching, modeling, critique, and material exploration.
Create	CO4	Integrate structure, systems, and user experience into a cohesive design resolution, and communicate it effectively through drawings, models, and presentations.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	2	3	3	2	3	1	2	1	2	2	0	No Co-Relation
CO2	2	3	3	2	3	1	1	1	3	2	1	Low Co-Relation
CO3	2	3	3	2	2	2	2	1	3	3	2	Medium Co-Relation
CO4	2	3	2	3	2	3	3	2	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	2	2	3	2	0	No Co-Relation
CO2	3	2	1	2	3	1	Low Co-Relation
CO3	2	3	2	2	3	2	Medium Co-Relation
CO4	2	3	2	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Framing Intentions	CO1	1.1	Understand	Investigate contextual, cultural, and spatial conditions to frame a site-responsive design intention.	Fieldwork, Research, Studio	30
		1.2	Analyze	Interpret site immersion, socio-cultural dynamics, and design precedents to articulate a critical position aligned with the master's ethos.	Seminar, Self-directed Study, Studio	
2. Cities as Ideological Constructs	CO2	2.1	Apply	Develop a conceptual framework into a spatial strategy that reflects the thematic and contextual parameters of the brief.	Studio, Workshop, Seminar	50

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Cities as Ideological Constructs	CO2	2.1	Apply	Develop a conceptual framework into a spatial strategy that reflects the thematic and contextual parameters of the brief.	Studio, Workshop, Seminar	50
		2.2	Evaluate	Assess and refine architectural proposals through iterative testing of program, user experience, and formal articulation.	Studio, Class Exercise	
3. Systems and Resolution	CO3	3.1	Apply	Integrate structure, services, and environmental systems into the spatial design with appropriate material strategies.	Studio, Lecture, Workshop	40
		3.2	Analyze	Analyze site-specific constraints and opportunities to support technical and spatial resolution.	Research, Studio, Seminar	
4. Synthesis and Communication	CO4	4.1	Create	Synthesize conceptual, contextual, and technical design dimensions into a coherent architectural proposal.	Studio, Workshop, Self-directed Study	30
		4.2	Communicate	Communicate the design intent and development process through compelling visual and verbal methods suited for juried reviews.	Studio, Seminar, Class Exercise	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Framing Intentions	Assignment Review, Jury, Seminar, Time Problem	30	80	Review (Portfolio/Digital Portfolio/ Report)	60
2. Cities as Ideological Constructs	Assignment Review, Jury, Seminar, Time Problem	50	180	Review (Portfolio/Digital Portfolio/ Report)	160
3. Systems and Resolution	Assignment Review, Jury, Seminar, Time Problem	40	140	Review (Portfolio/Digital Portfolio/ Report)	140
4. Synthesis and Communication	Assignment Review, Jury, Seminar, Time Problem	30	100	Review (Portfolio/Digital Portfolio/ Report)	140

REFERENCES

1. Frampton, Kenneth. Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture. Cambridge: MIT Press, 1995.
2. Moussavi, Farshid. The Function of Form. Barcelona: Actar, 2009.
3. Chandavarkar, Rahul, and Rahul Mehrotra (eds.). Architecture in India: Since 1990. Mumbai: Pictor, 2011.

Note: Additional readings and resources will be curated based on the visiting architect's body of work and the thematic focus of the masterclass.

Semester 06

CO-OPERATIVE LEARNING

COURSE CODE: 25BAR605
CREDITS: 16

Type of Course:	Elective Courses (PE, OE)
Prerequisites:	–

COURSE DESCRIPTION
To gain practical experience working in a chosen field of interest outside the school environment with a focused objective to include allied fields of architecture, and help shape powers of analysis and creativity in Level 3 of the program.

NO. OF TEACHING HOURS					**SCHEME OF EXAMINATION**						
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	—	—	—	*As per architectural firm/office	800	800	1600	400	400	–	–
Per semester	—	—	—	*As per architectural firm/office							

COURSE OUTCOMES		
Domain	**Outcomes**	
Create	CO1	Summarize and formulate the knowledge and skillsets gained during the training.
Analyze	CO2	Discover individual self-skills concerning specific domain and further identify and develop the expertise needed to carry out the tasks in the office.
Create	CO3	Compile the undertakings in an area of specialization and further synthesize ideas about the synergy between academic teachings and practical learnings.
Analyze	CO4	Analyse and interpret learning in terms of the design process and generate workable design solutions in architecture.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING											
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**
CO1	2	2	2	1	1	1	2	3	3	2	0 No Co-Relation
CO2	2	1	2	1	1	1	2	2	3	2	1 Low Co-Relation
CO3	2	2	2	2	2	2	2	3	3	3	2 Medium Co-Relation
CO4	2	3	3	2	2	2	1	2	2	3	3 High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING						
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**
CO1	2	2	2	3	2	0 No Co-Relation
CO2	1	2	2	3	2	1 Low Co-Relation
CO3	2	3	3	3	3	2 Medium Co-Relation
CO4	3	3	2	2	3	3 High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Workshop	CO1 CO2 CO3 CO4	1.1	Create	Co-operative Learning is an experiential learning program that takes education beyond the classroom. Students in the sixth semester will have to undergo at least 16 working weeks of full-time work under the supervision of a professional from Architecture or allied fields, gaining practical experience and theoretical understanding in specialized, discipline related electives of their choice. Students are adequately supervised and evaluated to ensure that the work experience is balanced with academics, and academic goals are met.	Practical Training/ Self-Directed Study	—

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Workshop	Progress Report	—	800	Review (Portfolio/Digital Portfolio/ Report)	800

Semester 07

(LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
							Marks			SEE Evaluation			
										Review		Written	
			Lecture	Design Studio/ Construction Studio / Capstone Project	Lab / Workshop/ Studio Exercise / Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration
25BAR701	Urban Studio	12	1	9	2	12	600	600	1200	300	300	-	-
25BAR702	High Performance Building Systems	6	2	2	2	6	300	300	600	100	100	100	3 hours
25BAR703	Project Management	4	2	1	1	4	200	200	400	75	75	50	2 hours
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
Total		**26**											

***Two elective effective courses of 2 credits each are recommended**

Semester 07

URBAN STUDIO

COURSE CODE: 25BAR701
CREDITS: 12

Type of Course:	**Professional Core Courses (PC)**
Prerequisites:	**History and Urbanism 1& 2**

COURSE DESCRIPTION
This studio enables students to critically engage with the complexities of urban environments through a multidisciplinary, systems-based approach. Framing the city as a dynamic, collective living system, the course emphasizes the intersection of architecture with ecological, socio-economic, and political forces. Students explore urban transformation across scales, situating their architectural thinking within larger networks by addressing neighbourhood revitalization, mobility, land use, and public space equity by emphasizing the interconnectedness of space, policy, and lived experience. Grounded in real-world contexts, the studio involves site-based inquiry through mapping, fieldwork, and stakeholder analysis. Students develop strategic and iterative spatial proposals that integrate statutory frameworks, climate responsiveness, inclusive design, and ethical site planning. The studio prepares students to navigate governance, regulation, and feasibility while reflecting on the architect's role in shaping equitable, sustainable urban futures.

NO. OF TEACHING HOURS					**SCHEME OF EXAMINATION**						
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/ Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	9	2	12	600	600	1200	300	300	—	—
Per semester	15	135	30	180							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyze	CO1	Study and analyze the urban environment as a complex system by identifying interdependencies between spatial, ecological, socio-economic, and political factors at multiple scales.
Evaluate	CO2	Evaluate real-world challenges and opportunities in urban conditions—through field-based research, stakeholder insights, governance structures, and statutory frameworks—to inform well-grounded design decisions.
Create	CO3	Respond to site-specific and systemic urban issues through context-sensitive design interventions that integrate architectural thinking with inclusive planning, climate responsiveness, and policy alignment. Create architecture that fits into a studied urban context and develop strategic spatial proposals and design frameworks at multiple scales — from building to precinct.
Communicate	CO4	Communicate proposed design effectively using appropriate visual and verbal tools

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	0	0	1	3	0	3	2	0	0	0	No Co-Relation
CO2	0	0	3	2	2	0	2	2	2	0	1	Low Co-Relation
CO3	2	2	2	0	0	0	0	0	2	3	2	Medium Co-Relation
CO4	3	3	0	2	0	3	0	0	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	0	0	0	0	0	0	No Co-Relation
CO2	0	0	0	1	0	1	Low Co-Relation
CO3	3	0	2	0	3	2	Medium Co-Relation
CO4	0	1	2	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1.Contextual Inquiry and Understanding of Urban Systems	CO1	1.1	Analyze	Investigate urban systems, stakeholders, and policy frameworks shaping city neighbourhoods.	Fieldwork, Research	48
		1.2	Analyze	Fieldwork to document site conditions, social structures, economic layers, and ecological systems; mapping key physical and cultural attributes.	Fieldwork	
	CO2	1.3	Evaluate	Analyze spatial and stakeholder dynamics relevant to site-specific challenges along with social, and ecological networks to identify key design challenges and potentials.	Studio	
2. Strategic Frameworks and Urban Systems Thinking	CO2	2.1	Evaluate	Define long-term vision scenarios based on site findings; establish goals related to equity, resilience, and place-making.	Self-directed Study, Studio	36
	CO3	2.2	Create	Create design programs for key sites within the study area, focusing on typology, land use, and user needs.	Self-directed Study, Studio	
		2.3	Create	Develop initial master plan-level strategies, integrating mobility, public space networks, land use, and ecological considerations.	Self-directed Study, Studio, Workshop	
3. Design Synthesis and Architectural Resolution	CO3	3.1	Analyze	Develop design iterations using digital and physical modelling tools, assessing feasibility and design impact.	Self-directed Study, Studio	72
		3.2	Analyze	Refine design proposals to align with climate responsiveness, socio-cultural context, and resilience strategies.	Self-directed Study	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Design Synthesis and Architectural	CO2	3.3	Analyze	Test spatial and formal explorations for priority sites, integrating street networks, open spaces, and edge conditions.	Self-directed Study, Workshop	
4. Communication, Reflection, and Project Positioning	CO4	4.1	Communicate	Synthesize the design strategy, framework, and detailed proposals into a cohesive narrative. Emphasize on clarity, innovation, and social relevance.	Self-directed Study	24
		4.2	Communicate	Develop high-quality final drawings, models, diagrams, and visualizations for communication.	Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1.Contextual Inquiry and Understanding of Urban Systems	Written Test, Assignment Review, Jury	48	200	Review (Portfolio/Digital Portfolio/ Report)	100
2. Strategic Frameworks and Urban Systems Thinking	Jury, Written Assignment Review	36	100	Review (Portfolio/Digital Portfolio/ Report)	200
3. Design Synthesis and Architectural Resolution	Assignment Review, Written Test	72	200	Review (Portfolio/Digital Portfolio/ Report)	200
4. Communication, Reflection, and Project Positioning	Quiz, Written Test, Assignment Review	24	100	Review (Portfolio/Digital Portfolio/ Report)	100

REFERENCES

1. Kevin Lynch – The Image of the City, MIT Press, 1960
2. Kevin Lynch – A Theory of Good City Form, MIT Press, 1981
3. Camillo Sitte – The Art of Building Cities, Dover Publications, 2006

4. Rob Krier – Urban Space, Academy Editions, 1979
5. Gordon Cullen – The Concise Townscape, Architectural Press, 2015
6. Jan Gehl – Cities for People, Island Press, 2010
7. Matthew Carmona – Public Places, Urban Spaces: The Dimensions of Urban Design,Routledge, 2010.
8. Christopher Alexander – A Pattern Language: Towns, Buildings, Construction, Oxford University Press, 1977
9. Eran Ben-Joseph – The Code of the City: Standards and the Hidden Language of Place Making, MIT Press, 2005
10. Stephen Marshall – Cities, Design and Evolution, Routledge, 2009
11. Cyril Paumier – Creating a Vibrant City Center: Urban Design and Regeneration Principles, Urban Land Institute, 2004
12. Peter Calthorpe – Urbanism in the Age of Climate Change, Island Press, 2011
13. UN-Habitat – Planning Sustainable Cities: Global Report on Human Settlements, Earthscan, 2009 (for policy + global urban lens)

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 07

HIGH PERFORMANCE BUILDING SYSTEMS

COURSE CODE: 25BAR702

CREDITS: 06

Type of Course:	Building Sciences and Applied Engineering (BS and AE)
Prerequisites:	–

COURSE DESCRIPTION

This course explores the integration of sustainable principles, construction materials, structural systems, and mechanical services in contemporary architectural design. Students will examine green and net-zero energy building strategies, critically engage with environmental rating systems such as LEED, IGBC, and GRIHA, and analyze the use of ferrous and non-ferrous metals, steel products, and glass in building construction.

The course also introduces foundational knowledge of structural steel construction, including framing systems, staircases, trusses, and prefabricated assemblies. Additionally, it covers thermal comfort, psychrometrics, and HVAC design principles, emphasizing space planning, system components, energy efficiency, and sustainable mechanical system integration. Through detailed study and case examples, students will learn to evaluate and apply sustainable and performance-driven solutions across different building scales and contexts.

No. of Teaching Hours					Scheme of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Construction Studio/ Design Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	2	2	2	6	300	300	600	100	100	100	3 Hours
Per Semester	30	30	30	90							

COURSE OUTCOMES

Domain	Outcomes	
Evaluate	CO1	Demonstrate an understanding of sustainable building principles, including green and net-zero energy strategies, and critically evaluate environmental rating systems.
Analyze	CO2	Analyze and apply the properties and structural applications of ferrous and non-ferrous metals, glass, and steel products in contemporary construction.

Domain	Outcomes	
Analyze	CO3	Interpret structural steel systems and construction methods, including foundations, floors, stairs, and roofs, and analyze prefabricated building systems and their relevance to Indian construction practices.
Evaluate	CO4	Apply principles of thermal comfort and psychrometrics, and design basic HVAC systems including components, ductwork, spatial requirements, and sustainable strategies for energy-efficient mechanical services.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1		3	3	3	0	3	3	3	3	3	0	No Co-Relation
CO2	2	3	3	2	0	3	3	3	3	3	1	Low Co-Relation
CO3	3	3	3	3	0	3	3	3	3	3	2	Medium Co-Relation
CO4	3	3	3	3	0	3	3	3	3	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	3	3	3	3	0	No Co-Relation
CO2	2	1	3	3	3	1	Low Co-Relation
CO3	3	3	3	3	3	2	Medium Co-Relation
CO4	3	3	3	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Green Buildings	CO1	1.1	Understand	Key concepts and goals of green buildings and net zero buildings, Benefits for energy, environment, and occupants	Class Exercise, Lecture	15
		1.2	Evaluate	Overview of LEED, IGBC, GRIHA rating systems, Categories like energy, water, materials, IEQ, Synergies and integrated sustainable design	Class Exercise, Lecture	
2. Materials	CO2	2.1	Understand	Properties and applications of ferrous metals like iron, steel and alloy steel, Properties and applications of non-ferrous metals such as Aluminium, Copper etc.	Class Exercise, Lecture	15
		2.2	Apply	Forms of Steel available for Industrial construction & first to fourth generation steel roofing products. Variety of Mild Steel sections – Sheets (plain & corrugated), Flats, Bars (round & square), Angles, R.S. Sections (I beams, Channels, Tees).	Fieldwork, Lecture	
		2.3	Analyze	Hollow Tubular sections available for application in the building industry. Variety of glass products and their application in internal and external building works.	Fieldwork, Lecture	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Structural Steel Connections	CO3	3.1	Understand	Introduction to structural steel sections, construction details of grillage foundations and framed steel construction, understanding connections and bracing details in columns and beams, introduction to structural steel and composite sections, stanchions and girders, Introduction to Steel flooring systems (mezzanine flooring)	Lecture, Class Exercise	30
		3.2	Analyze	Introduction to steel staircases understanding detailed drawings and construction details of steel staircases: straight flight, doglegged and spiral.	Class Exercise, Lecture	
		3.3	Apply	Introduction to steel roofing systems, understanding detail drawings and construction details of structural steel trusses with roof coverings,	Class Exercise, Lecture	
		3.4	Analyze	Introduction to advanced steel structures and details of portal frames, castellated beams, Introduction to pre-fabrication; its advantages and disadvantages of on-site and off-site; relevance of prefabrication in the Indian construction industry.	Class Exercise, Lecture	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
4. Mechanical Systems in Architecture	CO4	4.1	Analyze	Recognise the scope and impact of mechanical systems, impact of space planning, architectural design, high-rise buildings, construction cost, and global environment. Thermal Comfort: Standard requirements of ventilation for different conditions of living and work, conditions for comfort, control of quality, quantity, temperature, and humidity of air. Indoor Air Quality, techniques and adaptations of different climatic conditions.	Class Exercise, Lecture	30
	C04	4.2	Apply	Fundamentals: Principles of heat transfer, thermodynamics, psychometrics, psychometric chart, and its application. Principles and Components of HVAC Systems - Refrigeration systems, refrigeration cycle, various components of refrigeration systems and cycle: compressor, chiller, condensers, and understanding Principles of Air-conditioning.	Class Exercise, Lecture, Workshop	
		4.3	Evaluate	HVAC System Design and Layout - Components and Equipment in Air Conditioning Systems, air conditioning equipment. Cooling towers, cooling coil, refrigerants, boilers, ducts, electrical systems for HVAC, concepts of zoning, room air distribution-types of outlets. Direct expansion and chilled water systems, types of compressors, cooling tower, air handling unit, fan coil unit, pumps, hot water generator, and chilled/ condenser water piping.	Class Exercise, Lecture, Workshop	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
		4.4	Evaluate	Space requirements for A/c units, AHU's & a/c plant, ducting, testing, and maintenance on ducts and pipes. Spatial requirements, Cooling load calculation, Duct design, Blower design, maintenance, Concept of Air exchanges, Ducting. Location with due consideration for reduction of heat gain, economy, and energy saving. Layout of supply and return air ducts. General considerations in air duct design layout.	Class Exercise, Lecture	
		4.5	Evaluate	Sustainable design approaches: Materials and systems for insulation, energy-efficient techniques regarding HVAC systems. HVAC drawings: Documentation and case studies of small-scale and large-scale buildings, reading drawings, understanding notations, legends, symbols, and sizes.	Class Exercise, Fieldwork, Lecture	

SCHEME OF EVALUATION					
Module	CIE			SEE	
	Method of Evaluation	Hours	Marks	Method of Evaluation	Marks
1. Green Buildings	Assignment Review, Jury	15	60	Review (Portfolio/Digital Portfolio/ Report)	60
2. Materials	Assignment Review, Jury	15	60	Review (Portfolio/Digital Portfolio/ Report)	60
3. Structural Steel Connections	Assignment Review, Jury	30	80	Review (Portfolio/Digital Portfolio/ Report)	80
4. Mechanical Systems in Architecture	Assignment Review, Written Test	30	100	Written Exam	100

REFERENCES

1. Givoni, B. (1998). Climate considerations in building and urban design. John Wiley & Sons.
2. Szokolay, S. V. (2014). Introduction to architectural science: The basis of sustainable design (3rd ed.). Routledge.
3. Kibert, C. J. (2016). Sustainable construction: Green building design and delivery (4th ed.). Wiley.
4. ASHRAE. (2021). ASHRAE handbook—Fundamentals. American Society of Heating, Refrigerating and Air-Conditioning Engineers.
5. Indian Green Building Council (IGBC). (n.d.). IGBC rating systems.
6. GRIHA Council. (n.d.). GRIHA manual - Volume 1 to 5.
7. IS 800:2007. (2007). General construction in steel – Code of practice. Bureau of Indian Standards.
8. McMullan, R. (2017). Environmental science in building (8th ed.). Red Globe Press.
9. Allen, E., & Iano, J. (2019). Fundamentals of building construction: Materials and methods (7th ed.). Wiley.
10. .Minke, G. (2012). Building with earth: Design and technology of a sustainable architecture. Birk
11. Mehta, M., Scarborough, W., & Armpriest, D. (2017). Building construction: Principles, materials, and systems (3rd ed.). Pearson.
12. Schodek, D., Bechthold, M., Griggs, K., Kao, K. M., & Steinberg, M. (2014). Structures (7th ed.). Pearson Education.
13. Arora S. C. and S. Domkundwar, A Course in Refrigeration & Air conditioning, Dhanpat Rai and Company, 2002.
14. Hanes, Roger W and Myers, Michael E, HVAC System design handbook, McGraw Hill Education, New York
15. Aly S. Dadras, Mechanical Systems for Architects, McGraw-Hill, 1995

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 07

PROJECT MANAGEMENT

COURSE CODE: 25BAR703
CREDITS:04

Type of Course:	Professional Ability Enhancement Courses (PAEC)

COURSE DESCRIPTION

This course provides architecture students with comprehensive knowledge of project management principles as applied to the construction and built environment sector. It covers the full project lifecycle—from initiation to closure—focusing on planning, scheduling, budgeting, risk, procurement, and contract management. Students will learn to apply tools like Work Breakdown Structures (WBS), Critical Path Method (CPM), and Program Evaluation Review Technique (PERT), along with digital tools like MS Project and Primavera.

Key areas include project cost management, financial forecasting, tendering processes, contract documentation, procurement strategies, inventory management, and quality and safety protocols. The course also emphasizes the integration of Building Information Modelling (BIM), Enterprise Resource Planning (ERP) systems, and computerized project management information systems (PMIS) to enhance project efficiency, collaboration, and sustainability.

No. of Teaching Hours					Scheme of Examination						
Hours	Lecture	Construction Studio/ Design Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
								Review		Written	
					CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	2	1	1	4	200	200	400	75	75	50	2
Per semester	30	15	15	60							

COURSE OUTCOMES		
Domain	**Outcomes**	
Create	CO1	Apply foundational project management principles to effectively manage architectural and construction projects and prepare relevant reports.
Evaluate	CO2	Estimate project costs using basic quantity take-off and rate analysis, and evaluate cost control, budgeting, and financial forecasting methods.
Evaluate	CO3	Analyze and implement contract administration procedures, including tendering, procurement strategies, standard forms, dispute resolution, and materials and inventory management techniques.
Evaluate	CO4	Evaluate and apply strategies for quality control, risk mitigation, and site safety management, and use digital tools to coordinate and monitor construction workflows.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	3	1	3	1	0	3	2	3	1	1	0	No Co-Relation
CO2	3	2	3	2	1	3	1	3	1	1	1	Low Co-Relation
CO3	3	1	3	1	1	2	2	3	1	1	2	Medium Co-Relation
CO4	3	1	3	2	2	3	2	3	1	1	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	3	2	3	3	0	No Co-Relation
CO2	0	3	2	3	3	1	Low Co-Relation
CO3	1	3	2	3	3	2	Medium Co-Relation
CO4	1	3	2	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Introduction	CO1	1.1	Apply	Introduction to project management: Definitions, need and importance, objectives and functions of project management, stakeholders and role of Project Managers in the building industry	Lecture	
		1.2	Analyze	Project feasibility reports, Project Phases - initiation to closure and Life cycle - planning, scheduling, monitoring, and controlling	Class Exercise, Lecture, Research	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Introduction	CO1	1.3	Create	Project Planning and Scheduling: Project objectives, scope, deliverables, milestone, Types of projects, Work break down structure (WBS)	Class Exercise, Lecture	**18**
		1.4	Create	Bar chart / Gantt chart, Network representations, Principles and application of CPM & PERT, Network analysis, development of CPM network, Identification of critical path, Different float computations,	Class Exercise, Lecture, Fieldwork	
		1.5	Create	PERT Network - Probabilistic time estimates of activities, Analysis of PERT Network, Development of Critical path. Project updating.	Class Exercise, Lecture, Research	
2. Cost and Contract Management	CO2	2.1	Evaluate	Project Cost Management: Types of project costs: direct, indirect, contingency, overheads, Time cost trade-off, Budget preparation and cost estimation basics, Quantity take-off and rate analysis (overview)	Class Exercise, Lecture	15
		2.2	Evaluate	Financial Concepts in Projects - Cash flow forecasting, Time value of money, depreciation, cash flow, Cost control techniques, and cost tracking, Cost Benefit Analysis	Fieldwork, Lecture, online	
		2.3	Apply	Contract Management: Types of contracts: item rate, lump sum, cost plus, turnkey. Prequalification, Tendering and procurement process,	Fieldwork, Lecture, Research	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Cost and Contract Management	CO2	2.4	Apply	Components of contract documents: drawings, specifications, general and special conditions, Introduction to standard contract forms (e.g., FIDIC, CPWD)	Class Exercise, Lecture, Online	
		2.5	Apply	Disputes, claims, arbitration, and resolution methods	Class Exercise, Lecture, Research	
3. Materials and Risk Management	CO3	3.1	Evaluate	Procurement and Materials Management: Definitions, Scope, and objectives, importance, functions, Allocation of resources, Resource levelling and smoothening	Class Exercise, Fieldwork, Lecture, Research	15
		3.2	Apply	Inventory management - Types, Techniques - EOQ, ABC, JIT, safety stock, stock verification and audits, Procurement Strategies, Logistics and Supply Chain in Construction	Class Exercise, Fieldwork, Lecture, Research	
	CO3	3.3	Evaluate	Risk, Quality and Safety Management: Understanding project risks: identification, assessment, mitigation, Quality Assurance (QA) vs. Quality Control (QC), Safety protocols, legal requirements, and best practices	Class Exercise, Fieldwork, Lecture, Research	
		3.4	Evaluate	Occupational and safety hazard assessment, implementation of Safety programme, Site management roles and responsibilities in maintaining quality and safety	Class Exercise, Fieldwork, Lecture, Online	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
4. Digital Tools	CO4	4.1	Create	Digital Tools in Project Management: Evolution, Importance, Benefits: efficiency, accuracy, real-time updates, collaboration,	Online, Research, Workshop	12
		4.2	Apply	Integration with Building Information Modeling (BIM) and ERP systems. PMIS Concept	Class Exercise, Lecture, Online	
		4.3	Apply	Information system computerization, Problems in information system management, Benefits of computerized information system	Class Exercise, Workshop	
		4.4	Create	Project management software packages (MS Project/Primavera)	Workshop, Lecture	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	Marks
1. Introduction	Written Test, Assignment Review, Quiz	18	70	Written Exam	50
2. Cost and Contract Management	Assignment Review, Jury, Quiz	15	50	Review (Portfolio/Digital Portfolio/ Report)	50
3. Materials and Risk Management	Assignment Review, Jury, Quiz	15	50	Review (Portfolio/Digital Portfolio/ Report)	50
4. Digital Tools	Assignment Review, Jury, Quiz	12	30	Review (Portfolio/Digital Portfolio/ Report)	50

REFERENCES

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13. FIDIC. (1999). Conditions of contract for construction: For building and engineering works designed by the employer. Federation International des Ingénieurs-Conseils.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 08

(LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio/ Construction Studio/ Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR801	Advanced/ Exchange Studio	12	1	8	3	12	600	600	1200	300	300	-	-
25BAR802	Advanced Construction Systems	4	1	2	1	4	200	200	400	75	75	50	2 hours
25BAR803	Thesis Seminar 1	2	0	0	2	2	100	100	200	50-	50	-	-
25BAR804	Dissertation	3	1	0	2	3	150	150	300	75	75	-	-
25BAR805	Professional Practice	3	1	0	2	3	150	150	300	75	75	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	50	50	-	-
Total		**26**											

*** One elective course of 2 credits is recommended**

Semester 08

ADVANCED/EXCHANGE STUDIO

COURSE CODE: 25BAR801
CREDITS: 12

Type of Course:	Professional Core Courses (PC)
Prerequisites:	Urban Studio

COURSE DESCRIPTION

This studio offers an explorative platform for architectural design situated within the larger urban domain, where complexity, diversity, and scale become central to the design inquiry.Through choice-based thematic tracks (can be selected with approved domestic or international institution), students may choose to work from a range of typologies offered—like urban housing, institutional campuses, public buildings, healthcare, heritage precincts, regenerative landscapes etc. The studio builds on the urban sensibilities developed in the previous semester, with a focused shift toward master planning methods, multi-user complexity, and integrated architectural systems.

Students will learn to think beyond isolated buildings and approach the design of precincts and large sites by considering urban interfaces, mobility, open space networks, programmatic relationships, infrastructure, and long-term transformation. The studio will foreground spatial strategy development, site-wide phasing, stakeholder mapping, and sustainability frameworks, alongside architectural detailing.

This course may also be pursued as an approved Exchange Studio with partnered institutions in India or abroad, subject to academic equivalency, credit matching, and prior approval by both institutions. Students are encouraged to explore domain-specific tracks in diverse urban contexts. The exchange option allows for pedagogical diversity, exposure to varied cultural and ecological conditions, and expansion of architectural and urban sensibilities across geographies. The emphasis is on producing architectural outputs that are technically grounded, socially inclusive, environmentally responsive, and spatially visionary.

No. of Teaching Hours					Scheme of Examination						
Hours	Lecture	Construction Studio/ Design Studio/ Capstone Project	Lab/Workshop/ Studio Exercise/ Colloquium	Total	Marks			SEE Evaluation			
								Review		Written	
					CIE	SEE	Total Marks	Int.	Ext.	Marks	Duration of Exam
Per week	1	8	3	12	600	600	1200	300	300	—	—
Per semester	15	120	45	180							

COURSE OUTCOME		
Domain	**Outcomes**	
Analyze	CO1	Analyze complex urban contexts by understanding systems, stakeholders, and site dynamics through understanding of spatial strategies rooted in policy, context, infrastructure, and multiple user needs.
Evaluate	CO2	Investigate and interpret site ecologies, regulatory systems, stakeholder dynamics, and urban networks to formulate design directions. Explore design thinking, typological explorations, and iterative processes to choose context-sensitive and user-responsive architectural solutions.
Create	CO3	Design holistic architectural solutions at multiple scales—site, block, and unit—that respond to urban conditions and demonstrate strong spatial, technical, and social integration.
Communicate	CO4	Communicate proposed design effectively using appropriate visual and verbal tools

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	2	0	0	2	3	0	0	1	0	0	0	No Co-Relation
CO2	0	0	3	2	0	0	0	0	2	0	1	Low Co-Relation
CO3	0	3	0	2	0	3	0	2	2	3	2	Medium Co-Relation
CO4	0	0	0	0	0	0	3	0	0	0	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	2	0	0	0	0	No Co-Relation
CO2	0	0	0	2	0	1	Low Co-Relation
CO3	3	0	2	3	3	2	Medium Co-Relation
CO4	0	0	2	0	1	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Contextual Decoding and Strategic Framing	CO1	1.1	Analyze	Investigate and understand the systems and stakeholders shaping these multi-layered contexts.	Research	48
		1.2	Analyze	Fieldwork emphasizing on spatial reading across scales by mapping urban systems, stakeholders and assessing socio-cultural, economic, and ecological variables.	Fieldwork	
	CO2	1.3	Evaluate	Decode and analyze spatial and stakeholder dynamics relevant to site-specific challenges.	Studio, Class Exercise	
		1.4	Evaluate	Position projects within broader urban, environmental, and societal discourses and frame a responsive master planning vision.	Self-directed Study	
		1.5	Evaluate	Identifying zoning strategies, connectivity frameworks, landscape integration, and public space structuring to form strategic site narratives as a springboard for architectural interventions.	Studio, Self-directed Study	
2. Program Development and Typological Exploration	CO2	2.1	Evaluate	Transition from site frameworks to define programmatic and spatial intent; user profiling, policy research and structure relevant programs	Self-directed Study	36
		2.2	Evaluate	Reflect on real-world challenges and future transitions; articulate and develop user-centered briefs and architectural concepts rooted in social relevance, flexibility, and system thinking.	Self-directed Study, Workshop, Studio	
	CO1	2.3	Analyze	Analyze typological deconstructions and precedents and explore spatial organization, form, structural logic, and environmental strategies based project context and user needs.	Self-directed Study	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Design Synthesis and Architectural Resolution	CO3	3.1	Create	Develop architectural design across scales and resolve relationships between public/private, vertical/horizontal systems, and urban interfaces.	Self-directed Study, Studio	72
		3.2	Create	Refine design concepts into resolved spatial configurations by integrating advanced systems of services, structures, materials and environmental responsiveness.	Workshop	
3. Design Synthesis and Architectural Resolution	CO2	3.3	Analyze	Test design using digital and analog tools—form-making, facade systems, day lighting, thermal comfort, material logic.	Studio, Workshop	
	CO3	3.4	Create	Iterative design development to refine proposals for adaptability, resilience, and inclusivity.	Self-directed Study	
4. Communication, Reflection, and Project Positioning	CO4	4.1	Communicate	Evaluate and synthesize project narratives—context analysis, program development, and architectural resolution into a coherent design story.	Studio, Workshop	24
		4.2	Communicate	Produce master plans, detailed drawings, 3D views, environmental data, and user experience diagrams.	Studio	
		4.3	Communicate	Explore high quality mediums and methods of representation to effectively communicate the design's value and vision.	Self-directed Study	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Contextual Decoding and Strategic Framing	Assignment Review, Jury	48	75	Review (Portfolio/Digital Portfolio/ Report)	50
2. Program Development and Typological Exploration	Jury, Time Problem	36	75	Review (Portfolio/Digital Portfolio/ Report)	75
3. Design Synthesis and Architectural Resolution	Assignment Review, Jury	72	275	Review (Portfolio/Digital Portfolio/ Report)	250
4. Communication, Reflection, and Project Positioning	Assignment Review, Jury	24	175	Review (Portfolio/Digital Portfolio/ Report)	225

REFERENCES

1. "Christopher Alexander, Sara Ishikawa, and Murray Silverstein – A Pattern Language: Towns, Buildings, Construction, Oxford University Press, 1977."
2. " Matthew Carmona – Public Places, Urban Spaces: The Dimensions of Urban Design, Routledge, 2010."
3. "Ken Yeang – Designing with Nature: The Ecological Basis for Architectural Design, McGraw-Hill, 1995."
4. Peter Zumthor – Thinking Architecture, Birkhäuser, 1998.
5. "Herman Hertzberger – Lessons for Students in Architecture, 010 Publishers, 2001."
6. " Christian Norberg-Schulz – Genius Loci: Towards a Phenomenology of Architecture, Rizzoli, 1980."
7. Gordon Cullen – The Concise Townscape, Architectural Press, 1961.
8. " Edward Tufte – Envisioning Information, Graphics Press, 1990."
9. " UN-Habitat – Planning Sustainable Cities: Global Report on Human Settlements, Earthscan, 2009."
10. "Smart Cities Mission – Urban Framework Guidelines and City Reports, Ministry of Housing and Urban Affairs, Government of India, 2017."
11. Bureau of Indian Standards – National Building Code of India, 2016.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives as per the theme chosen during the studioand get it approved by the director as instructed.

Semester 08

ADVANCED CONSTRUCTION SYSTEMS

COURSE CODE: 25BAR802
CREDITS: 04

Type of Course:	Advanced Construction Systems
Prerequisites:	–

COURSE DESCRIPTION
This course explores advanced construction systems and design strategies for high-rise and complex buildings, with a focus on façade technologies, innovative building methods, and earthquake-resistant architecture. Students will gain a comprehensive understanding of structural systems, building envelopes, prefabrication technologies, and the seismic behaviour of buildings. Emphasis is placed on integrating technical knowledge with contemporary architectural practices through case studies, IS code compliance, and sustainable construction strategies.

No. Of Teaching Hours					Scheme of Examination						
					Marks			SEE Evaluation			
								Review		Written	
Hours	Lecture	Construction Studio/Design Studio/ Capstone Project	Lab/ Workshop/ Studio Exercise/ Colloquium	Total	CIE	SEE	Total Marks	Int.	Ext	Marks	Duration of Exam
Per week	1	2	1	4	200	200	400	75	75	50	2 Hours
Per semester	15	30	15	60							

COURSE OUTCOMES		
Domain	**Outcomes**	
Evaluate	CO1	Analyze structural systems for tall and complex buildings and evaluate appropriate foundation and lateral load-resisting systems.
Create	CO2	Design façade and envelope systems based on performance criteria such as thermal comfort, acoustics, and day lighting.
Apply	CO3	Apply advanced construction technologies, including modular, prefabricated, and robotic methods to contemporary architectural projects.
Evaluate	CO4	Evaluate earthquake-resilient design strategies and demonstrate knowledge of seismic codes and structural behaviour of materials under seismic forces.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	3	3	3	2	0	3	3	3	3	3	0	No Co-Relation
CO2	3	3	3	3	0	3	3	3	3	3	1	Low Co-Relation
CO3	3	3	3	2	0	3	3	3	3	3	2	Medium Co-Relation
CO4	3	2	3	3	2	3	3	2	2	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	1	3	3	2	0	No Co-Relation
CO2	3	1	3	3	3	1	Low Co-Relation
CO3	3	1	3	3	2	2	Medium Co-Relation
CO4	3	1	3	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. High-Rise and Complex Structures	CO1	1.1	Understand	Structural systems in tall buildings: core, outrigger, tube, diagrid, mega-frame	Class Exercise, Lecture	12
		1.2	Evaluate	Foundation systems for high-rise and large-span structures, Lateral load resistance: seismic and wind considerations	Class Exercise, Lecture	
		1.3	Analyze	Case studies of iconic tall and complex buildings.	Class Exercise, Fieldwork	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Façade and Envelope Technologies	CO2	2.1	Understand	Double skin façades, ventilated façades, unitized curtain wall systems	Class Exercise, Lecture	12
		2.2	Create	Performance-based envelope design: thermal, acoustic, daylighting, waterproofing	Class Exercise, Lecture	
		2.3	Apply	Façade engineering: material choices, anchoring systems, movement joints, Smart façades and responsive building skins	Class Exercise, Lecture	
3. Advanced Construction Methods and Technologies	CO3	3.1	Apply	Modular and prefabricated construction - principles and practices, methods, systems and fabrication	Class Exercise, Fieldwork, Lecture	12
		3.2	Apply	Composite constructions, concepts, techniques, and applications, steel-concrete, timber-steel etc	Class Exercise, Fieldwork, Lecture	
		3.3	Apply	Hybrid construction methods and rapid assembly technologies, Robotics, 3D printing, and automation in construction	Class Exercise, Fieldwork, Lecture	
4. Earthquake-Resistant Architecture	CO4	4.1	Understand	Fundamentals of Earthquakes, Seismic Zoning and Design Philosophy - Seismic zones and structural effects	Class Exercise, Lecture	24
		4.2	Apply	Architectural features affecting seismic performance, Seismic design approach: ductility, flexibility, and code provisions	Class Exercise, Lecture, Workshop	
		4.3	Apply	Masonry Structures and Earthquake Behaviour, Reinforced Concrete (RC) Structures and Seismic Response - Behaviour of RC elements: beams, columns, joints, footings, Importance of ductility and detailing in RC construction	Class Exercise, Lecture, Workshop	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
		4.4	Evaluate	Localised failures and design improvements, Vulnerability and Mitigation Techniques - Open ground storey buildings and short column effect, Role of shear walls and base isolation, Seismic retrofitting strategies and best practices	Class Exercise, Lecture	

SCHEME OF EVALUATION					
Module	CIE			SEE	
	Method of Evaluation	Hours	Marks	Method of Evaluation	Marks
1. High-Rise and Complex Structures	Assignment Review, Jury	12	40	Review (Portfolio/Digital Portfolio/ Report)	40
2. Façade and Envelope Technologies	Assignment Review, Jury	12	40	Review (Portfolio/Digital Portfolio/ Report)	40
3. Advanced Construction Methods and Technologies	Assignment Review, Jury	12	40	Review (Portfolio/Digital Portfolio/ Report)	40
4. Earthquake-Resistant Architecture	Assignment Review, Jury, Written Test	24	80	Written Exam	50
				Review (Portfolio/Digital Portfolio/ Report)	30

REFERENCES

1. Ali, M. M., & Moon, K. S. (2007). Structural developments in tall buildings: Current trends and future prospects. Architectural Science Review, 50(3), 205–223. https://doi.org/10.3763/asre.2007.5027
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4. Yeang, K. (1996). The green skyscraper: The basis for designing sustainable intensive buildings. Prestel.

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6. Saelens, D. (2002). Energy performance assessment of single storey multiple-skin facades. Building and Environment, 37(6), 659–669. https://doi.org/10.1016/S0360-1323(01)00068-5
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11. Paulay, T., & Priestley, M. J. N. (1992). Seismic design of reinforced concrete and masonry buildings. John Wiley & Sons.
12. Chopra, A. K. (2020). Dynamics of structures: Theory and applications to earthquake engineering (5th ed.). Pearson.
13. International Code Council. (2021). International Building Code (IBC). International Code Council.

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Semester 08

THESIS SEMINAR 1

COURSE CODE: 25BARA803
CREDITS:2

Type of Course:	Professional Core Courses (PC)
Prerequisites:	Urban Studio

COURSE DESCRIPTION
The course marks the beginning of the architectural thesis in the Bachelor of Architecture program. The course aims to prepare students to develop, articulate, and ideate a comprehensive research-based architectural thesis project. It focuses on identifying relevant research questions, formulating a program, conducting contextual studies, and framing a robust design intent. It emphasises research methodologies, conceptual development, precedent analysis, program formulation, and critical thinking. Students work on analytical tasks leading up to a comprehensive thesis synopsis and concept formulation, setting a precedent for the course Thesis Seminar 2.

NO. OF TEACHING HOURS					**SCHEME OF EXAMINATION**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Construction Studio/Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	0	0	2	2	100	100	200	50	50	-	-
Per semester	0	0	30	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Communicate	CO1	Formulate a research-based architectural thesis topic through a comprehensive design inquiry.
Analyze	CO2	Develop a critical position and design intent while applying architectural research methods (systematic investigation, literature review and case studies).
Create	CO3	Create a holistic design thesis synopsis that includes a well-articulated problem statement, objectives, scope, methodology, and relevance.
Apply	CO4	Establish a clear program, design brief and present the thesis synopsis (proposition and preliminary findings) through well-organised written, visual, and oral formats to peers and faculty for critique and refinement.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	1	1	3	2	2	0	2	0	2	1	0	No Co-Relation
CO2	1	2	3	2	3	0	1	1	2	2	1	Low Co-Relation
CO3	2	1	3	2	2	1	2	1	2	1	2	Medium Co-Relation
CO4	1	2	2	1	1	2	3	1	2	1	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	PSO1	PSO2	PSO3	PSO4	PSO5	Levels of Relation:	
CO1	3	0	0	2	3	0	No Co-Relation
CO2	2	0	1	2	3	1	Low Co-Relation
CO3	2	0	1	2	3	2	Medium Co-Relation
CO4	1	1	1	2	2	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Identifying areas of interest and framing a research question	CO1	1.1	Analyze	Course overview, expectations, discussion on thesis types (thematic, typological, contextual, technological, and theoretical).	Research, Self-directed Study, Seminar	8
		1.2	Analyze	Brainstorming workshops, topic mapping and design enquiry. Research question vs. thesis statement; writing exercises, topic refinement. Select a focus area (e.g., cultural, typological, ecological, social, technological).	Research, Self-directed Study, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Critical position, design intent and program development	CO2	2.1	Communicate	Set a clear research agenda to drive the design process. Define a central research question or problem. Frame research objectives (what you intend to achieve). Articulating the architectural stance and intentions while establishing functions, user needs, and space requirements.	Research, Self-directed Study, Seminar	6
		2.2	Create	Set a clear research agenda to drive the design process and program development. Convert your research problem into a design program. Develop an area program with categories, activities, sizes, and adjacencies. Estimate areas based on standards (NBC, Time-Saver Standards, case studies).	Research, Self-directed Study, Seminar	

SCHEME OF EVALUATION						
Module	**CIE**				**SEE**	
	Method of Evaluation	**Hours**	**Marks**		**Method of Evaluation**	**Marks**
1. Identifying areas of interest and framing a research question	Jury, Seminar	8	30	25	Review (Portfolio/Digital Portfolio/ Report)	25
2. Critical position, design intent and program development	Jury, Seminar	6		25		25
3. Literature review and theoretical framework	Jury, Seminar	6		25		25
4. Precedent and Case Study Analysis & draft synopsis	Jury, Seminar	10		25		25

REFERENCES

1. Ching, F. D. K. (2015). Architecture: Form, space, and order (4th ed.). Wiley.

2. Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE Publications.

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5. Neuman, W.L. (2014). Social Research Methods. Pearson.

6. Noble, D. (2011). Writing the architecture thesis: A student's guide to writing research-based design projects. Routledge.

7. Turabian, K. L., Booth, W. C., Colomb, G. G., & Williams, J. M. (2018). A manual for writers of research papers, theses, and dissertations: Chicago style for students and researchers (9th ed.). University of Chicago Press

8. Unwin, S. (2009). Analysing architecture (3rd ed.). Routledge.

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Semester 08

DISSERTATION

COURSE CODE: 25BAR802
CREDITS: 03

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	Urban Studio

COURSE DESCRIPTION
This course introduces students to the fundamentals of architectural research and critical inquiry. Students will undertake a guided independent study culminating in a dissertation that explores a specific issue related to architecture, urbanism, design, theory, or technology. The course emphasises analytical thinking, academic writing, literature review, and formulation of a research proposal, laying the groundwork for thesis seminars 1 and 2 in the 8th and 9th semesters, respectively.

No. of Teaching Hours					**Scheme of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	2	3	150	150	300	75	75	-	-
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Formulate a clear research question and apply appropriate architectural research methods to investigate theoretical, historical, contextual, or technological aspects of architecture cutting across different disciplines.
Analyze	CO2	The student will have the comprehensive knowledge to collect, assimilate, and synthesise the data related to the specific research. Students will demonstrate the ability to critically analyse architectural literature, case studies, and precedents as part of research methodologies to develop informed and original arguments or hypotheses.

Domain	Outcomes	
Communicate	CO3	Effectively communicate their research findings through both oral presentations and visual materials, demonstrating clarity, coherence, and professionalism.
Create	CO4	Students will produce a well-organised dissertation that adheres to academic writing conventions, including proper citation, coherent structure, and clear visual-graphic integration.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**Levels of Relation:**	
CO1	2	0	3	3	3	2	2	2	2	2	0	No Co-Relation
CO2	2	0	3	3	3	1	1	1	0	2	1	Low Co-Relation
CO3	2	0	2	1	1	2	3	0	2	1	2	Medium Co-Relation
CO4	3	0	1	3	3	2	2	1	2	1	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	0	1	2	2	0	No Co-Relation
CO2	3	0	1	2	2	1	Low Co-Relation
CO3	0	0	1	2	2	2	Medium Co-Relation
CO4	3	0	1	2	2	3	High Co-Relation

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
. Introduction to architectural research and dissertation writing	CO1	1.1	Understand	Familiarize students with the fundamentals of academic research and architectural writing: nature and scope of architectural research, difference between design thesis and dissertation, types of research	Lecture, Research, Self-directed Study	**12**
	CO2	1.2	Understand	Understand qualitative, quantitative, and mixed methods, choosing and narrowing down a researchable topic, review of precedent studies and case examples, ethics in architectural research, structure and format of a dissertation report, and citation styles and avoiding plagiarism.	Lecture, Research, Self-directed Study	
2. Literature review and theoretical framework	CO2	2.1	Apply	Purpose and structure of a literature review, methods for sourcing academic literature (journals, books, reports), critical reading strategies.	Lecture, Research, Self-directed Study	12
		2.2	Understand	Understand identifying research gaps and formulating questions, building a conceptual and theoretical framework, linking literature to architectural and identification of case studies.	Research, Self-directed Study, Seminar	
3. Research design, methodology, and data collection, analysis, and interpretation	CO3	3.1	Apply	Formulating research objectives and hypotheses, selecting appropriate methodology (case study, ethnography, spatial analysis, etc.), designing data collection tools (surveys, interviews, observation schedules, mapping techniques).	Lecture, Research, Self-directed Study	9

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
3. Research design, methodology, and data collection, analysis, and interpretation		3.2	Analyze	Train students in organizing, analyzing, and interpreting data in a meaningful architectural context via fieldwork protocols and site visits, techniques for documentation: photographic, spatial, sketch-based, quantitative vs. qualitative analysis approaches, visualizing findings (charts, diagrams, thematic maps), interpreting results in relation to research questions and theories, identifying patterns, relationships, and anomalies.	Fieldwork, Research, Self-directed Study	
4. Synthesis, conclusions, and report writing	CO4	**4.1**	**Create**	Writing chapters: Introduction, Literature Review, Methodology, Findings, Discussion, Conclusion. Using visuals and diagrams effectively in documentation, addressing common writing errors and style improvement.	Research, Self-directed Study	**12**
		4.2	**Create**	Peer reviews and iterative drafts followed by final formatting and referencing.	Research, Self-directed Study, Seminar	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Introduction to architectural research and dissertation writing	Jury, Seminar, Quiz, Assignment Review	12	50	Review (Portfolio/ Digital Portfolio/ Report)	150
2. Literature review and theoretical framework	Jury, Seminar, Quiz, Assignment Review	12	25		

Module	CIE			SEE	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
3. Research design, methodology, and data collection, analysis, and interpretation	Jury, Seminar, Written Assignment Review	9	25	Review (Portfolio/ Digital Portfolio/ Report)	
4. Synthesis, conclusions, and report writing	Jury, Seminar, Written Assignment Review	12	50		

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1. Borden, I., & Rüedi Ray, K. (2000). The Dissertation: An Architecture Student's Handbook. Architectural Press.
2. Neuman, W.L. (2011). Social Research Methods: Qualitative and Quantitative Approaches
3. Zeisel, J. (2006). Inquiry by Design: Environment/Behavior/Neuroscience in Architecture, Interiors, Landscape, and Planning.
4. Wiseman, Carter. 2014. Writing Architecture: A Practical Guide to Clear Communication About the Built Environment. San Antonio: Trinity University Press.
5. Borden, Iain, and Katerina Ruedi Ray. (2014). The Dissertation: A Guide for Architecture Students. Routledge.
6. Groat, Linda N., and David Wang. (2013). Architectural Research Methods. John Wiley & Sons.
7. Fischer, Tom. Architectural Research. https://rp.design.umn.edu/resources/documents/ArchGraphStand15.pdf
8. Sommer, Barbara, and Robert Sommer. (2002). A Practical Guide to Behavioral Research: Tools and Techniques. New York: Oxford University Press.
9. Creswell, John W., and J. David Creswell. 2020. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Thousand Oaks, California: Sage Publications.
10. Yin, R.K. (2003). Case Study Research: Design and Methods. Applied Social Research Methods Series 5. Sage, Thousand Oaks.
11. "Formatting Your Dissertation." Formatting Your Dissertation. https://gsas.harvard.edu/degree-requirements/dissertations/formatting-your-dissertation.
12. "Format Requirements for Paper Dissertation." Format Requirements for Paper Dissertation | Registrar's Office. https://registrar.stanford.edu/students/dissertation-and-thesis-submission/preparing-dissertations-paper-submission/format.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 08

PROFESSIONAL PRACTICE

COURSE CODE: 25BAR805
CREDITS: 03

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	Professional Ethics

COURSE DESCRIPTION
This course provides a comprehensive exploration of the professional practice of architecture, equipping students with the knowledge and skills necessary to transition from academic study to effective professional engagement. Emphasizing the interconnected themes of Architecture and Society, Practice, Construction and Civil, Office Practices, and Legal Aspects, the course investigates the architect's role as a civic leader, ethical practitioner, and business professional within contemporary society. The course also addresses emerging issues in professional ethics, entrepreneurship, and technological innovation, preparing students to navigate the evolving landscape of architectural practice with confidence and competence.

No. of Teaching Hours					**Scheme of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/ Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	2	3	150	150	300	75	75	-	-
Per semester	15	0	30	45							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Understand and identify the professional and statutory responsibilities of an architect, including the ethical framework, communication protocols, and the role of bodies such as the Council of Architecture and the Indian Institute of Architects. Recognise the architect's role in leading teams and collaborating effectively with clients and consultants
Analyze	CO2	Analyse the architect's role within the building industry and legal frameworks by interpreting project stakeholders' relationships, contract obligations, site coordination, dispute resolution mechanisms, and valuation practices

Domain	Outcomes	
Apply	CO3	Apply the structured methods of professional practice in project execution, including architectural services, contracts, competitions, firm operations, and basic accounting. Demonstrate the ability to communicate, negotiate, and manage responsibilities professionally.
Create	CO4	Create professional awareness towards career advancement by exploring pathways in entrepreneurship, higher education, and employment. Develop leadership, communication, and entrepreneurial competencies essential for managing architectural practice, building a professional identity, and engaging effectively with clients, collaborators, and the wider industry through strategic marketing and branding initiatives.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	Levels of Relation:	
CO1	3	2	2	1	1	3	2	3	2	2	0	No Co-Relation
CO2	2	2	3	1	0	3	2	3	2	2	1	Low Co-Relation
CO3	2	3	2	0	0	3	3	3	2	3	2	Medium Co-Relation
CO4	2	2	1	0	0	1	3	3	3	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	0	1	3	2	0	No Co-Relation
CO2	0	0	2	2	2	1	Low Co-Relation
CO3	0	0	3	2	2	2	Medium Co-Relation
CO4	1	0	3	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Architect and Society	CO1	1.1	Understand	Nature of the architectural profession and its distinction from trade and business Ethical responsibilities, duties, and liabilities of an architect Role and significance of statutory and professional bodies (Council of Architecture, Indian Institute of Architects)	Research, Class Exercise, Lecture, Seminar	8
2. Architectural Practice and Professional Services	CO3	2.1	Apply	Scope and types of architectural services Client-architect agreements: contracts, scale of fees, and payment stages Types of architectural firms and basic firm management (including accounting and operations) Legal and statutory requirements in practice Approaches to project acquisition: networking, competitions, and client engagement Drawing standards and documentation protocols for competitions and practice	Research, Class Exercise, Lecture, Seminar	8
3. Building Industry and Construction Management	CO2	3.1	Analyze	Overview of the construction industry and roles of stakeholders Architect's responsibilities in coordination, execution, and site management Enforcement mechanisms, tendering processes, and contract administration	Research, Class Exercise, Lecture, Seminar	6
4. Land and Legal Aspects in Practice	CO2	4.1	Analyze	Land holdings, property valuation, easements, and dilapidations Legal disputes and the architect's role as an arbitrator or expert witness	Research, Class Exercise, Lecture, Seminar	5

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
5. Career and Emerging Opportunities in Architecture	CO4	5.1	Create	Employment paths: private practice, consultancy, salaried positions, NGOs, journalism, academia Entrepreneurship and innovation: starting and managing a firm Higher education and exchange programs: course options, scholarships, and application processes	Research, Class Exercise, Lecture, Seminar	5
6. Interdisciplinary Collaboration and	CO4	6.1	Create	Exploring allied and emerging fields: event management, product design, branding, advertising Developing action plans for interdisciplinary growth and career diversification	Research, Class Exercise, Lecture, Seminar	**5**
7. Leadership, Communication, and Teamwork in Practice	CO3	7.1	Apply	Leadership skills for practice management and project coordination Professional communication with clients, consultants, and contractors Negotiation techniques and conflict resolution in professional settings	Research, Class Exercise, Lecture, Seminar	**4**
8. Marketing and Client Development for	CO4	8.1	Create	Building and promoting a professional identity and practice Digital marketing strategies and social media engagement Networking and sustaining client relationships	Research, Class Exercise, Lecture, Seminar	**4**

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Architect and Society	Assignment Review, Jury, Seminar	08	25	Review (Portfolio/ Digital Portfolio/ Report)	150
2. Architectural Practice and Professional Services	Assignment Review, Jury, Seminar	08	25		
3. Building Industry and Construction Management	Assignment Review, Jury, Seminar	06	22		
4. Land and Legal Aspects in Practice	Assignment Review, Jury, Seminar	05	20		
5. Career and Emerging Opportunities in Architecture	Assignment Review, Jury, Seminar	05	20		
6. Interdisciplinary Collaboration and Practice Expansion	Assignment Review, Jury, Seminar	05	20		
7. Leadership, Communication, and Teamwork in Practice	Assignment Review, Jury, Seminar	04	9		
8. Marketing and Client Development for Architects	Assignment Review, Jury, Seminar	04	9		

REFERENCES

1. Krishnamurthy, K. G., and S. V. Ravindra
   a. Professional Practice
   b. PHI Learning Pvt. Ltd., 2014
2. Namavati, Dr. Roshan H.
   a. Professional Practice: With Elements of Estimating, Valuation, Contract and Arbitration
   b. Lakhani Book Depot, 2016."
3. Chappell, David, Michael Dunn, and Bob Greenstreet
   a. Legal and Contractual Procedures for Architects
   b. Architectural Press, 2003"
4. Freeth, Evelyn, and Peter Davey
   a. AJ Legal Handbook
   b. Architectural Press, 1979
5. BA (Royal Institute of British Architects)
   a. Plan of Work 2020"
6. Council of Architecture (COA), India
   a. Minimum Standards of Architectural Education Regulations, 2020"

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 09

(LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR901	Thesis Seminar 2	2	0	0	2	2	100	100	200	50	50	-	-
25BAR94	Internship	22	-	-	-	-*	1100	1100	2200	550	550	-	-
25BAR905	Learning from Practice	2	0	0	2	2	100	100	200	50	50	-	-
Total		**26**											

*** As per regulation**

Semester 09

THESIS SEMINAR 2

COURSE CODE:25BAR901
CREDITS: 2

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	Thesis Seminar 1

COURSE DESCRIPTION
This course builds upon the foundational work of Thesis Seminar 1 and transitions into the detailed development of the architectural thesis project. The course translates conceptual ideas into comprehensive architectural solutions, integrating design, technology, sustainability, and contextual relevance. The seminar provides a structured environment for iterative design development, peer critique, and faculty guidance. Students are expected to demonstrate a mature design process, clear narrative, and critical reflection. The course culminates in the presentation and submission of a fully developed design thesis.

No. of Teaching Hours					**Scheme of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Design Studio/ Construction Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	0	0	2	2	100	100	200	50	50	–	–
Per semester	0	0	30	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Appropriate site selection based on the approved thesis proposal that addresses programmatic, contextual, and user needs.
Analyze	CO2	Analyze case studies and precedents while integrating research and technical knowledge effectively for informed design decisions or site selection.
Create	CO3	Demonstrate competence in design representation techniques, including drawings, models, and digital media, to convey design intent effectively.
Create	CO4	Prepare and present a coherent and professional thesis proposal document, showcasing the ability to engage in professional-level discourse and critique.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	1	3	3	3	1	1	0	2	1	0	No Co-Relation
CO2	2	1	3	3	2	2	0	1	2	2	1	Low Co-Relation
CO3	1	3	2	0	1	2	2	0	2	3	2	Medium Co-Relation
CO4	2	2	2	0	0	2	3	1	2	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	0	0	2	3	0	No Co-Relation
CO2	3	0	1	2	2	1	Low Co-Relation
CO3	1	2	0	1	2	2	Medium Co-Relation
CO4	1	1	2	2	2	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Making	CO2	1.1	Communicate	Methods of site analysis, considering macro and micro factors. Establish a legitimate, design-worthy site tied to the thesis problem. Propose multiple site options and justify selection using criteria.	Research, Self-directed Study, Seminar	12

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Making	CO2	1.2	Apply	Gather macro context data and justify the site culturally, socially, ecologically, not just physically. Present a clear site selection matrix with pros and cons.	Research, Self-directed Study, Seminar	
2. Sensing	CO1	2.1	Analyze	Selection and inferences from case studies and their comparative analysis. Uncover the latent forces and constraints of the site.	Research, Self-directed Study, Seminar	6
		2.2	Analyze	Perform micro-level analysis: sun paths, prevailing winds, views, vegetation, noise, slope, services, etc. Translate data into layered, annotated diagrams.	Research, Self-directed Study, Seminar	
3. Observing	CO4	3.1	Communicate	Clearly articulate the design challenge and stance. Synthesise research, case studies, and site data into a problem statement.	Research, Self-directed Study, Seminar	6
		3.2	Create	Define critical position: how the design will respond, oppose, or redefine current norms. Map out design criteria: what your design must solve, support, avoid, or embrace.	Research, Self-directed Study, Seminar	
4. Iterating	CO3	4.1	Create	Graphic and verbal presentation techniques.	Research, Self-directed Study, Seminar	6
		4.2	Communicate	Presentation to a panel of faculty and invited critics and submission of report.	Research, Self-directed Study, Seminar	

SCHEME OF EVALUATION						
Module	**CIE**				**SEE**	
	Method of Evaluation	**Hours**		**Marks**	**Method of Evaluation**	**Marks**
Contextual inquiry and site justification	Seminar, Jury	30	12	25	Review (Portfolio/ Digital Portfolio/ Report)	25
Site Analysis and Interpretation	Seminar, Jury		6	25		25
Peer reviews, draft presentations and refining the proposal	Seminar, Jury		6	25		25
Final presentation and submission of report	Seminar, Jury		6	25		25

REFERENCES

1. Neuman, W. L. (2014). Social research methods: Qualitative and quantitative approaches (7th ed.). Pearson.

2. Unwin, S. (2022). Analysing architecture (5th ed.). Routledge.

3. Allen, E., & Iano, J. (2019). Fundamentals of building construction: Materials and methods (7th ed.). Wiley.

4. Zeisel, J. (2006). Inquiry by design: Environment/behavior/neuroscience in architecture, interiors, landscape, and planning (Rev. ed.). W. W. Norton.

5. Tufte, E. R. (2006). Beautiful evidence. Graphics Press.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 09

INTERNSHIP

COURSE CODE:25BAR904
CREDITS: 22

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	–

COURSE DESCRIPTION
To gain practical experience and be exposed to the various facets of architectural practice through an internship at an established architectural studio.

No. of Teaching Hours					**Scheme of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Construction Studio/Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	—	—	—	*as per architectural firm/ office	1100	1100	2200	550	550	—	—
Per semester	—	—	—	*as per architectural firm/ office							

COURSE OUTCOMES		
Domain	**Outcomes**	
Apply	CO1	Identify and understand the role of architects in the practice and build skills for taking actions on-site decision-making process
Apply	CO2	Assess the self's ability to execute the knowledge and learning gained during the academic period to deliver a successful project.
Apply	CO3	Build a proactive attitude for problem-solving and decision-making. Further, ensure maximum development of required professional skills to formulate a proposal for execution of the project.
Apply	CO4	Analyse and interpret learning of the design process and generate workable design solutions in architecture and construction technology.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	3	2	2	1	3	1	3	2	3	2	0	No Co-Relation
CO2	2	3	3	2	2	3	2	3	3	3	1	Low Co-Relation
CO3	2	3	3	2	2	2	3	2	3	3	2	Medium Co-Relation
CO4	3	3	3	3	2	3	2	2	3	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	2	1	3	2	0	No Co-Relation
CO2	2	3	2	2	3	1	Low Co-Relation
CO3	1	3	3	2	3	2	Medium Co-Relation
CO4	3	2	2	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**Unit**	**CO Mapping**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Workshop	1.1	CO1 CO2 CO3 CO4	Create	Students will have to undergo at least 16 working weeks of internship in the ninth semester as per the norms laid by the Competent Regulatory Authority, India in an	Self-directed study/ Research/	—

				approved firm established not less than five years with a registered architect. Students are expected to participate in and be exposed to the various facets of architectural practice through internship at an established architectural studio. To Understand the role and importance of the experience in practice and on-site decision-making process is a vital part of the course.	Studio/ Seminar	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Workshop	Progress Report	-	1100	Review (Portfolio/ Digital Portfolio/ Report)	1100

Semester 09

LEARNING FROM PRACTICE

COURSE CODE:25BAR905
CREDITS: 2

Type of Course:	Professional Core Courses (PC)
Prerequisites:	Thesis Seminar 1

COURSE DESCRIPTION
This course builds upon the foundation of Professional Practice by encouraging students to critically observe and reflect on real-world architectural operations during their 16-week internship. Through structured documentation and guided reflection, students will compare theoretical knowledge with professional realities, analyze the functioning of architectural firms, and assess their own roles and learning within professional settings. The course culminates in a comprehensive internship report documenting experiences across administrative, legal, financial, and collaborative aspects of practice**.**

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	0	0	2	2	100	100	200	50	50	–	–
Per semester	0	0	30	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Document and interpret key aspects of architectural practice including contracts, client interactions, project management, and site execution.
Analyze	CO2	Compare academic knowledge gained through the Professional Practice course with live experiences in architectural offices.
Evaluate	CO3	Critically reflect on the professional, ethical, and organizational responsibilities encountered in the practice of architecture.
Create	CO4	Demonstrate ability to synthesize theoretical concepts and practical observations through structured reports, drawings, and reflective writing.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	2	2	1	0	3	2	3	2	2	0	No Co-Relation
CO2	2	2	3	1	0	2	0	2	3	2	1	Low Co-Relation
CO3	3	2	3	1	1	2	0	2	3	2	2	Medium Co-Relation
CO4	2	2	2	0	1	2	2	2	2	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	1	0	2	2	2	0	No Co-Relation
CO2	0	0	2	2	3	1	Low Co-Relation
CO3	1	0	1	3	3	2	Medium Co-Relation
CO4	0	2	1	2	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Making	CO2	1.1	Analyze	Understand the office hierarchy, communication protocols, and work culture. Observe how architects collaborate with clients, consultants, and internal teams.	Research, Self-directed Study, Online	6

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Making	CO2	1.2	Analyze	Record exposure to office software systems, project scheduling, and time management practices.	Research, Self-directed Study, Online	
2. Sensing	CO1	2.1	Apply	Map the phases of projects handled in the office – from conceptualization to site execution. Document involvement in design development, client presentations, working drawings, and detailing.	Research, Self-directed Study, Online	6
		2.2	Apply	Record site visits, understanding the role of architect in construction coordination, vendor interaction, and supervision	Research, Self-directed Study, Online	
3. Observing	CO4	3.1	Evaluate	Observe implementation of client agreements, consultant contracts, and procurement procedures. Identify instances of ethical decision-making, code compliance, and conflict resolution.	Research, Self-directed Study, Online	6
		3.2	Evaluate	Understand the architect's role in approvals, by-laws, and statutory procedures.	Research, Self-directed Study, Online	
4. Iterating	CO3	4.1	Evaluate	Record insights on budgeting, BOQs, basic estimation, billing cycles, and vendor payments (as accessible). Observe procedures related to tender documentation, contractor selection, and office accounting (when permitted). Reflect on how financial decisions affect architectural services and client relationships.	Research, Self-directed Study, Online	6

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
4. Iterating	CO3	4.2	Create	Maintain a weekly learning log/checklist aligned to Professional Practice themes. Document key observations through sketches, photos, and process notes.	Research, Self-directed Study, Online	
5. Conceptualising	CO4	5.1	Create	Write a critical reflection on how theoretical knowledge matched or differed from practical experience. Compile a final illustrated report with analytical observations and personal learning outcomes.	Research, Self-directed Study, Online	
		5.2	Evaluate	Record insights on budgeting, BOQs, basic estimation, billing cycles, and vendor payments (as accessible). Observe procedures related to tender documentation, contractor selection, and office accounting (when permitted). Reflect on how financial decisions affect architectural services and client relationships.	Research, Self-directed Study, Online	6

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
Organizational Structure and Work Culture in Practice	Seminar, Jury	6	20	Review (Portfolio/ Digital Portfolio/ Report)	20
Project Lifecycle: From Concept to Execution	Seminar, Jury	6	20		20
Professional Ethics, Contracts, and Legal Framework	Seminar, Jury	6	20		20
Finance, Tendering, and Resource Management	Seminar, Jury	6	20		20
Internship Reflection and Final Report	Seminar, Jury	6	20		20

REFERENCES

1. Pressman, A. (2010). Professional Practice 101. Wiley.

2. Coxe, W. et al. (1987). Success Strategies for Design Professionals. McGraw Hill.

3. Council of Architecture (India). Architects (Professional Conduct) Regulations.

4. Indian Institute of Architects. Practice Guidelines & Code of Conduct.

5. Emmitt, S. (2014). Design Management for Architects. Wiley-Blackwell.

6. RIBA Plan of Work – Royal Institute of British Architects (www.architecture.com)

7. Kolb, D. A. (1984). Experiential Learning: Experience as the Source of Learning and Development. Prentice Hall

8. Schon, D. A. (1983). The Reflective Practitioner. Basic Books.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

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Semester 10

(LEVEL 3)

Course Code	Course	Credits	No. of Teaching Hours per Week				Scheme of Examination						
			Lecture	Design Studio / Construction Studio / Capstone Project	Lab / Workshop / Studio Exercise / Colloquium	Total	Marks			SEE Evaluation			
							CIE	SEE	Total Marks	Review		Written	
										Int.	Ext.	Marks	Duration
25BAR 1001	Capstone Project	18	2	8	8	18	900	900	1800	450	450	-	-
25BAR 1002	Capstone Project Colloquium	4	0	0	4	4	200	200	400	100	100	-	-
25BAR 1003	Business Skills	2	1	0	1	2	100	100	200	50	50	-	-
25BAR YY EX	Elective*	2	-	-	-	2	100	100	200	100	100	-	-
Total		**26**											

*** One elective course of 2 credits is recommended**

Semester 10

Capstone Project

COURSE CODE: 25BAR1001
CREDITS: 18

Type of Course:	Professional Core Courses (PC)
Prerequisites:	Advanced/Exchange Studio and Internship

COURSE DESCRIPTION
The Capstone Project is a culminating course designed for architecture students to synthesise and apply their comprehensive knowledge and skills acquired throughout their academic journey. This project emphasises independent research, design innovation, critical thinking, and professional presentation. Students will undertake a complex architectural design challenge, addressing real-world issues with an integrated approach that combines aesthetics, functionality, sustainability, and technical proficiency. The course prepares students for professional practice by fostering creativity, problem-solving, and effective communication.

No. of Teaching Hours					**Scheme of Examination**						
					Marks			**SEE Evaluation**			
								Review		**Written**	
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**CIE**	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	2	8	8	18	900	900	1800	450	450	–	–
Per semester	30	120	120	270							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyze	CO1	Develop a comprehensive architectural design proposal integrating technical, environmental, social, and cultural considerations.
Apply	CO2	Conduct independent research and critical analysis to inform design decisions and innovation.
Create	CO3	Demonstrate proficiency in architectural representation, including drawings, models, and digital presentations.
Communicate	CO4	Communicate design concepts effectively to diverse audiences, including clients, peers, and professionals.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	3	1	1	3	3	1	1	2	1	2	0	No Co-Relation
CO2	2	0	3	3	3	3	1	2	1	1	1	Low Co-Relation
CO3	0	3	2	2	2	1	2	1	2	2	2	Medium Co-Relation
CO4	2	3	2	3	2	2	3	2	2	1	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	3	0	2	2	3	0	No Co-Relation
CO2	3	0	1	2	1	1	Low Co-Relation
CO3	2	1	1	2	3	2	Medium Co-Relation
CO4	2	1	1	3	1	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Capstone Project	CO1	1.1	Understand	Raise clear and precise questions. Construct a suitable synopsis, and finalise project topic, with a iterative approach.	Research, Self-directed Study, Studio	75
	CO2	1.2	Understand	Identify and finalise their project topic, conduct site analysis, case studies, and formulate design briefs based on contextual, social, and functional needs.	Research, Self-directed Study, Studio	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
1. Capstone Project	CO2	2.1	Analyze	Conduct site analysis, case studies, and formulate design briefs based on contextual, social, and functional needs.	Research, Self-directed Study, Studio	60
		2.2	Understand	Exploration of design ideas and conceptual frameworks. Deduce schematic layouts addressing spatial organisation, zoning, and circulation strategies.	Research, Self-directed Study, Studio	
	CO3	3.1	Evaluate	Exploration of design ideas and conceptual frameworks. Deduce schematic layouts addressing spatial organisation, zoning, and circulation strategies.	Research, Self-directed Study, Studio	75
		3.2	Understand	Integration of structural systems, services, sustainable strategies, and materials into the design. Emphasis is on coherent and technically sound solutions.	Research, Self-directed Study, Studio	
	CO4	4.1	Apply	Completion of all drawings, models, and presentation materials. Design is refined to a professional level, addressing feedback and detailing. Comprehensive project presentation to a panel of faculty and external experts.	Self-directed Study, Studio	60
		4.2	Apply	Submission includes complete project documentation, models, visuals, and a design report.	Seminar, Studio	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Capstone Project	Assignment Review, Jury	270	900	Review (Portfolio/Digital Portfolio/ Report)	900

REFERENCES

1. Ching, F. D. K. (2014). Architecture: Form, space, and order (4th ed.). John Wiley & Sons.
2. Neuman, W. L. (2014). Social research methods: Qualitative and quantitative approaches (7th ed.). Pearson.
3. Unwin, S. (2023). Analysing architecture (5th ed.). Routledge.
4. Weston, R. (2011). Materials, form and architecture. Laurence King Publishing.
5. Köhler, N., & Moffatt, S. (2003). Life-cycle analysis in building design. DfS—Design for Sustainability.
6. Leatherbarrow, D., & Mostafavi, M. (2002). Surface architecture. MIT Press.
7. Zumthor, P. (2006). Thinking architecture (2nd ed.). Birkhäuser.
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Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 10

CAPSTONE PROJECT COLLOQUIUM

COURSE CODE: 25BAR1002
CREDITS: 04

Type of Course:	Professional Core Courses (PC)
Prerequisites:	Thesis Seminar 2

COURSE DESCRIPTION
The students are required to integrate the learning of the previous two Seminars, leading to the capstone project presentation and defence. This course equips students with the ability to critically analyse, document, and effectively communicate the conceptual, contextual, and technical dimensions of their capstone project through seminars and discussions. It aims to prepare them for final jury presentations, report preparation and professional review settings.

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	0	0	4	4	200	200	400	100	100	–	–
Per semester	0	0	60	60							

COURSE OUTCOMES		
Domain	**Outcomes**	
Analyze	CO1	Demonstrate the ability to deliver a well-articulated design project, which includes research problems, objectives, and methodology, in relation to architectural and contextual concerns.
Apply	CO2	Present site-specific conditions, case studies, and theoretical precedents to inform and support design development.
Communicate	CO3	Communicate architectural ideas effectively through verbal presentations, visual media, and technical documentation suitable for academic and professional discourse.
Create	CO4	Reflect on peer and faculty critiques to refine and substantiate design decisions, showcasing preparedness for final thesis presentation and report preparation.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	3	3	2	3	1	2	1	2	2	0	No Co-Relation
CO2	2	3	3	2	3	1	1	1	3	2	1	Low Co-Relation
CO3	2	3	3	2	2	2	2	1	3	3	2	Medium Co-Relation
CO4	2	3	2	3	2	3	3	2	3	2	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	2	2	2	3	2	0	No Co-Relation
CO2	3	2	1	2	3	1	Low Co-Relation
CO3	2	3	2	2	3	2	Medium Co-Relation
CO4	2	3	2	3	3	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Orientation and course introduction	CO1	1.1	Create	Overview of course objectives, expectations, and deliverables, introduction to seminar-based presentation techniques and understanding the link between thesis design and academic discourse.	Research, Self-directed Study, Seminar	16
		1.2	Create	Construct a meaningful foundation for meaningful dialogue between research and design intentions.	Research, Self-directed Study, Seminar	

Module	CO Mapping	Unit	Domain Level	Topic Outline	Method of Delivery	Hours
2. Abstract and framework presentation	CO1	2.1	Apply	Set out the objectives, scope, expectations, and timeline of the seminar.	Self-directed Study, Seminar	12
	CO2	2.2	Analyze	"Frame design inquiry by articulating the problem statement, objectives, scope, methodology, and theoretical underpinnings of the thesis.	Research, Self-directed Study, Seminar	
4. Design development, iteration and final seminar	CO3	4.1	Apply	Showcase the progression of their design ideas, spatial strategies, and conceptual iterations. Discussions on form development, spatial organization, sustainable strategies, and integration of services.	Research, Self-directed Study, Seminar	20
	CO4	4.2	Communicate	Develop the ability to critically communicate their architectural thinking, reinforcing their readiness for the final thesis jury and report preparation.	Research, Self-directed Study, Seminar	

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1. Orientation and course introduction	Jury, Seminar	16	50	Review (Portfolio/ Digital Portfolio/ Report)	50
2.Abstract and framework presentation	Jury, Seminar	12	50	Review (Portfolio/ Digital Portfolio/ Report)	50
3.Contextual and precedent analysis	Jury, Seminar	12	50	Review (Portfolio/ Digital Portfolio/ Report)	50
4. Design development, iteration and final seminar	Jury, Seminar	20	50	Review (Portfolio/ Digital Portfolio/ Report)	50

REFERENCES

1. Ching, F. D. K. (2014). Architecture: Form, space, and order (4th ed.). John Wiley & Sons.

2. Borden, I., & Rüedi Ray, K. (2006). The dissertation: An architecture student's handbook (2nd ed.). Routledge.
3. Neufert, E., & Neufert, P. (2012). Architects' data (4th ed.). Wiley-Blackwell.
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9. Zeisel, J. (2006). Inquiry by design: Environment/behavior/neuroscience in architecture, interiors, landscape, and planning (Rev. ed.). W. W. Norton & Company.
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11. Williams, J. M., & Bizup, J. (2016). Style: Lessons in clarity and grace (12th ed.). Pearson.
12. Tufte, E. R. (2001). The visual display of quantitative information (2nd ed.). Graphics Press.
13. Evans, R. (1997). Translations from drawing to building and other essays. MIT Press.
14. Kolarevic, B. (2003). Architecture in the digital age: Design and manufacturing. Taylor & Francis.
15. Bureau of Indian Standards. (2016). National Building Code of India 2016. BIS.

Note: The references provided above are suggestive only. The course faculty may recommend alternatives in the course plan and get it approved by the director as instructed.

Semester 10

BUSINESS SKILLS

COURSE CODE: 25BAR1003
CREDITS:02

Type of Course:	Professional Ability Enhancement Courses (PAEC)
Prerequisites:	Professional Practice, Learning from Practice

COURSE DESCRIPTION
The students are required to integrate the learning of the previous two Seminars, leading to the capstone project presentation and defence. This course equips students with the ability to critically analyse, document, and effectively communicate the conceptual, contextual, and technical dimensions of their capstone project through seminars and discussions. It aims to prepare them for final jury presentations, report preparation and professional review settings. "This course introduces architecture students to essential business concepts and entrepreneurial skills needed for professional practice. Covering fundamentals such as business planning, finance, marketing, team management, and intellectual property, the course prepares students to navigate the business side of architecture. Through case studies and practical assignments, students will learn how to develop business models, manage projects, and position themselves for success in the evolving architectural industry.

No. of Teaching Hours					**Scheme of Examination**						
Hours	**Lecture**	**Construction Studio/ Design Studio/ Capstone Project**	**Lab/Workshop/ Studio Exercise/ Colloquium**	**Total**	**Marks**			**SEE Evaluation**			
								Review		**Written**	
					CIE	**SEE**	**Total Marks**	**Int.**	**Ext.**	**Marks**	**Duration of Exam**
Per week	1	0	1	2	100	100	200	50	50	–	–
Per semester	15	0	15	30							

COURSE OUTCOMES		
Domain	**Outcomes**	
Understand	CO1	Understand fundamental business concepts and terminology relevant to architectural practice.
Apply	CO2	Apply basic principles of business planning, finance, and marketing to architectural projects.
Domain	**Outcomes**	

Analyze	CO3	Analyse business models and case studies to identify key factors for successful architectural practice.
Create	CO4	Create a basic business plan or entrepreneurial proposal tailored for an architectural firm.

COURSE OUTCOME – PROGRAM OUTCOME MAPPING												
CO / PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO 10**	**Levels of Relation:**	
CO1	2	0	2	0	0	0	2	3	2	2	0	No Co-Relation
CO2	2	0	2	0	0	0	2	3	2	3	1	Low Co-Relation
CO3	2	0	3	0	0	0	2	3	3	3	2	Medium Co-Relation
CO4	2	2	3	0	0	1	3	3	3	3	3	High Co-Relation

COURSE OUTCOME – PROGRAM SPECIFIC OUTCOME MAPPING							
CO / PSO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**Levels of Relation:**	
CO1	0	0	2	2	0	0	No Co-Relation
CO2	1	1	3	2	0	1	Low Co-Relation
CO3	0	0	3	2	2	2	Medium Co-Relation
CO4	1	1	3	3	2	3	High Co-Relation

COURSE OUTLINE						
Module	**CO Mapping**	**Unit**	**Domain Level**	**Topic Outline**	**Method of Delivery**	**Hours**
1. Architectural Entrepreneurship & Firm Types	CO1	1.1	Understand	Introduction to entrepreneurship in architecture, types of business organisations and firm structures and the architect as entrepreneur: opportunities and challenges.	Research, Class Exercise, Lecture	6
2. Business Planning & Financial Literacy	CO2	2.1	Apply	Basics of business planning and strategy for design practices, financial literacy: budgeting, accounting, funding, and investment and aligning financial targets with business goals.	Research, Lecture, Workshop	6
3. Marketing & Client Communication	CO3	3.1	Analyze	Branding and marketing of architectural services, client relationship management and negotiation and effective verbal, written, and visual communication.	Research, Class Exercise, Lecture	8
4. Contracts, Risk & Ethics	CO1	4.1	Understand	Contracts, professional liabilities, risk management, intellectual property rights for architects and designers and ethics and codes of conduct in professional practice	Class Exercise, Lecture, Research	5
5. Project Management & Business Models	CO4	5.2	Create	Time and resource management in architectural projects, office administration and use of digital tools, developing and presenting a business model or plan for an architecture firm and portfolio & branding Strategies	Seminar, Lecture, Research, Workshop	5

SCHEME OF EVALUATION					
Module	**CIE**			**SEE**	
	Method of Evaluation	**Hours**	**Marks**	**Method of Evaluation**	**Marks**
1.Architectural Entrepreneurship & Firm Types	Assignment Review, Jury	6	20	Review (Portfolio/Digital Portfolio/ Report)	20
2. Business Planning & Financial Literacy	Assignment Review, Jury	6	20	Review (Portfolio/Digital Portfolio/ Report)	20
3. Marketing & Client Communication	Assignment Review, Jury	8	20	Review (Portfolio/Digital Portfolio/ Report)	20
4. Contracts, Risk & Ethics	Assignment Review, Jury	5	20	Review (Portfolio/Digital Portfolio/ Report)	20
5.Project Management & Business Models	Assignment Review, Jury	5	20	Review (Portfolio/Digital Portfolio/ Report)	20

REFERENCES

1. Drucker, P. F. (2006). The effective executive: The definitive guide to getting the right things done. HarperBusiness
2. Emmitt, S. (2014). Design management for architects (2nd ed.). Wiley-Blackwell.
3. Ratten, V. (2020). Entrepreneurship and innovation in smart cities. Routledge.
4. Blau, J. R. (1984). Architects and firms: A sociological perspective on architectural practice. MIT Press.
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6. Robbins, S. P., & Coulter, M. (2022). Management (15th ed.). Pearson
7. Brown, T. (2009). Change by design: How design thinking creates new alternatives for business and society. Harvard Business Press.
8. Ostrom, E. (2010). Understanding institutional diversity. Princeton University Press.

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