CURRICULUM FOR "BACHELOR OF ARCHITECTURE (B.ARCH.)"

(ANNEXURE III-a)

Modified and approved in April 2026, applicable to all the batches admitted from AY 2025 onwards

॥ तमसो मा ज्योतिर्गमय ॥

VISION

To provide equal opportunities for value based global education for creating an Enlightened Society

MISSION

To establish and facilitate educational institutions in the region for providing affordable value based global education to all who aspire to study and to create opportunities to educators, social workers and philanthropists to serve society

SARVAJANIK UNIVERSITY

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creating an enlightened society...

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Constituent Institute:

AAERT & The SSB Faculty of Architecture
MITRAJ SARVAJANIK
INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Published by: AAERT & the SSB Faculty of Architecture, MITRAJ Sarvajanik Institute of Design Planning & Technology, Sarvajanik University, MTB College Campus, Athwalines, Surat- India

Academic Curriculum Committee: Prof. Persi Engineer (Dean), Prof. Rikta Desai (Pro-Dean), Prof. Vishal Shah (Chairman of ACC-Architecture), Prof. Mahesh Nagecha, Prof. Bhavna Vimawala, Prof. Alpa Pandya, Prof. Hardik Gandhi

Ar. Amit Srivastava, Ar. Jitendra Meghani (Nirma University), Prof. Sankalpa (Alumni Rep.),National President/ Representative - IIA & IUDI.

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Program Curriculum

Bachelor of Architecture

The Program Curriculum proposed and drafted by **Academic and Curriculum Committee of Architecture** under the Faculty of Architecture, Design, Planning and Technology in the meeting held on **09/04/2026** and recommended to '**BOARD OF STUDIES**' for approval.

Prof. Vishal Shah **Chairman,** Academic & Curriculum Committee Architecture	**Place of the meeting** Sarvajanik University	Vishal **Sign**

The Proposed Program Curriculum was approved by **Board of Studies** under the Faculty of Architecture, Design, Planning and Technology in the meeting held on **15/04/2026** and was recommended to the '**FACULTY**' for approval.

Prof. Persi Engineer **Chairman - BOS** Architecture, Design, Planning & Technology	**Place of the meeting** Sarvajanik University	**Sign**

The Program Curriculum approved by the **Faculty of Architecture, Design, Planning & Technology** in the meeting held on **15/04/2026** and was recommended to '**ACADEMIC COUNCIL**' for approval

Prof. Persi Engineer **Chairman & Dean** Faculty of Architecture, Design, Planning & Technology	**Place of the meeting** Sarvajanik University	**Sign**

The Program Curriculum approved by the '**Academic Council of Sarvajanik University**' in the meeting held on **23/04 /2026**

Mr. Ashish Desai **Member-Secretary,** **Academic Council** **& Registrar,** Sarvajanik University	**Place of the meeting** Sarvajanik University	Desai **Sign**

- ***The approved curriculum is with effect from the Academic year 2026-27, applicable to all the batches admitted from AY 2025 onwards.***

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BACHELOR OF ARCHITECTURE

AAERT & The SSB Faculty of Architecture
MITRAJ SARVAJANIK INSTITUTE OF DESIGN PLANNING & TECHNOLOGY
(IDPT)

FACULTY OF ARCHITECTURE, DESIGN, PLANNING & TECHNOLOGY (FADPT)

SARVAJANIK UNIVERSITY
SURAT-GUJARAT INDIA

ERSION 2.0

W.E.F. ACADEMIC YEAR 2025-2026

Applicable to Batches admitted from AY 2025-2026 onwards

Proposed and discussed in ACC Meeting held on 09/04/2026

Approved in BOS meeting dated 15/04/2026

Approved in Faculty of Architecture, Design, Planning and Technology dated 15/04/2026

SARVAJANIK UNIVERSITY

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PRELUDE

The Sarvajanik Education Society has had a presence since 1912 in the South Gujarat region. The establishment of Sarvajanik University in 2021, under the stewardship of the Sarvajanik Education Society, marked a new era in higher education, advancing the mission to provide quality education that aligns with contemporary needs and meets global standards.

Sarvajanik College of Engineering and Technology along with Faculty of Architecture was instituted in 1995 and was the first self-financed educational institute in the state of Gujarat. Since then, the Faculty of Architecture has earned a place at both, national and international level, as one of the premier institutions imparting holistic education for aspiring architects. 25 batches have already graduated from FoA- SCET. The alumni have made remarkable contributions at national and international level both in practice as well as academics. A high percentage of graduates opting for post graduate education is a marker of success for the institute and points to igniting a passion for continued learning.

At the onset when the institute with the new name, Mitraj Sarvajanik Institute of Design Planning & Technology MS-IDPT will have full freedom to formulate and execute its progressive and liberal syllabus, it becomes even more pertinent to plan for syllabus content that is both meaningful and relevant for the undergraduate programme in Architecture. A rich blend of experience and expertise among a strong faculty strength, Today, MS-IDPT comprises four vibrant schools: the AAERT & THE SSB *Faculty of Architecture*, the *Sarvajanik Colourtex School of Interior Design*, the *Sarvajanik School of Fine Arts*, and the *Faculty of Planning*. MS-IDPT is all set to start its voyage for the new era by becoming a constituent of the Sarvajanik University.

A student centric choice based approach is the foundation of the formulation of the course along with liberal studies education which will become the distinctive attribute that MS-IDPT offers its students. Holistic personality development as well as an informed professional in the field of design , sensitive and sensible to issues of sustainability, is ensured through rendering an application and outcome based learning throughout the five-year programme. The module based delivery package is formulated to enable teachers to impart education that ensures synthesis of information and application of knowledge. In a world flooded with data and information the graduate of MS-IDPT will be able to synthesise information and convert it to knowledge, through a process rich in critical thinking and appropriate expression.

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In keeping with the benevolent and progressive Sarvajanik tradition of Inclusive education, diversity of students, inculcation of respect, civic participation and community inclusivity, shall be seeded in the young minds that meet here.

Guidelines given by the Council of Architecture, AICTE and NEP 2020 have been followed to form the broader framework of the syllabus. The distribution of courses ensures progressive development of student potential. Humanities, Liberal studies and life skills, a plethora of professional and open electives promote trans-disciplinary learning.

An Integrated approach synonymous with trans-disciplinary understanding is crucial to encourage Integrated and critical thinking, to build linkages between diverse academic inputs and practices. Students will utilize varied contradictory perspectives to understand current problems and positions contextually and seek Integrated solutions to build a Happy Society, intrinsic to the stated Vision. Various professional ability and skill enhancement subjects are ensured to build a syllabus that allows all students to chalk out their own roadmap as per interests and emerge as unique and responsible architects with a keen sensibility for societal issues.

Innovation is valued as a catalyst to growth. Through innovative approaches to pedagogy, the transaction of curriculum will be based on the principle of joyful learning thereby achieving better learning outcomes. The aim of the program is to develop each budding architect's metacognitive skills, manage learning strategies and direct the learning processes towards meaningful design solutions.

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VISION:

To strive towards creating responsive Built Environment and self-sustainable communities through 'Design Education' for creating a progressive and happy society.

MISSION:

To excel with passion in Teaching-Learning, Research and Consultancy for shaping of innovative and ethical design professionals competent to negotiate and mitigate social complexities, environmental challenges and global concerns

GRADUATE ATTRIBUTES:

1. Socially responsible and environmentally conscientious.
2. Individuals with critical thinking ability and a passion to innovate.
3. To assume a decision-making role in the work sphere and be the agent of change.
4. Adaptable individuals with ability to update and relearn in a fast-changing world.
5. Able to identify and ameliorate social and humanistic concerns through design solutions.

CORE VALUES:

Institution Level	**Individual Level**
Equality	Passion to Excel
Affordable Education	Adaptability
Learner Centric Approach	Compassion for All
Nurturing creativity & Sensitivity	Integrity
Holistic Development	Team Work
Freedom & Discovery	Social Responsiveness
Interdisciplinary Collaboration	Accountability
Sustainability	

PROGRAMME OUTCOME:

The Programme Outcomes (POs) outlined by the Council of Architecture (COA) serve as the guiding framework for shaping B.Arch curriculum.

1. **Architectural Knowledge**: Apply knowledge of architecture, art, science, engineering, and technology in design.
2. **Design Development**: Ability to develop architectural designs that meet desired needs within realistic constraints.

3. **Sustainable Design**: Awareness and application of principles of sustainability and environmental responsibility.
4. **Problem Analysis**: Identify, formulate, and analyze architectural problems using appropriate tools and techniques.
5. **Communication**: Communicate effectively through drawings, presentations, and written and oral modes.
6. **Ethics and Professionalism**: Understand professional and ethical responsibilities in the practice of architecture.
7. **Teamwork and Leadership**: Work effectively in interdisciplinary teams and exhibit leadership.
8. **Lifelong Learning**: Recognize the need for and engage in independent and lifelong learning.
9. **Social and Cultural Context**: Understand the role of architecture in a global, economic, environmental, and societal context.
10. **Technical Proficiency**: Use appropriate techniques, resources, and modern tools in architectural practice.

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SYLLABUS REVISION: VERSION 2

The syllabus proposed in August 2021, for the Five years Programme of Bachelor of Architecture @ IDPT-SCET was designed with a major thrust on learner centric choice-based education. Majority of the recommendations given in the Council of Architecture's Manual for Architectural Education and the concerns expressed in NEP 2020 were taken into account in this newly proposed (version I) syllabus. Introduction of Transdisciplinary Open Electives, Liberal studies and Life Skills courses and module-based learning are major revolutionary decisions incorporated in the syllabus. In April 2023, UGC further proposed NEP-CCFURP- (Credit Curriculum Framework for Undergraduate program) and Draft (NHEQF) - National Higher Education Qualifications Framework prepared on the basis of the report submitted by the high-level committee comprising members of various higher level educational authorities. In line with this, KCG (Knowledge Consortium of Gujarat), also issued guidelines highlighting the inclusion of IKS (Indian Knowledge System) and OJT (On Job training) in the curriculum.

Version 2 of the Syllabus for Five Years Programme of Bachelor of Architecture @ IDPT-SCET-SU was prepared after intense deliberations in the context of all the above-mentioned guidelines ensuring the mapping of credit framework and curriculum. The Syllabus incorporates multiple exit options and provision for re-joining the course in a stipulated time frame. Version 2 of the syllabus ensures that 60% credits in Sem I & Sem II are common between B.Arch., BID and BVA programmes furthering the idea of Foundation Courses in 1st year and remaining credits are programme specific. In case of change of programme, programme specific credits (if required) can be secured by the student through a bridge course. The Proposed Version-2 of the Syllabus will be applicable from the admission year 2025-26. Version 2 revised the credit to 260 along with change in course code as per the decision for foundation and elective courses pool at the institute level 9 and 10 semester course revision to incorporate research seminar specialise studio and design and research track are incorporated, institute philosophy are furthered in professional elective, transdisciplinary elective and LSLS courses. RSP is incorporated as a value added course.

GROUP OF SUBJECTS

Distribution of courses is done as per the framework provided by Council of Architecture and All India Council for Technical Education, the course grouping is done as per the guidelines issued by NEP & KCG as a part of the NEP-CCFURP- (Credit Curriculum Framework for Undergraduate program) and Draft (NHEQF). The 08 broader areas in which the entire curriculum is

divided ensure a holistic learning and not only intends to make a creative individual but also a technically skilled, socially responsible and environmentally aware architecture graduate. All the five years are given a theme and based on the same the learning is conducted.

First Year	Socially Responsive
Second Year	Critically Evolved
Third Year	Intellectually Competent
Fourth Year	Professionally Skilled
Final Year	Progressive Citizen.

The five major groups of subjects proposed in Syllabus are restructured in six groups, and summer internship as well as research options have been added. Credits are also redistributed as per this revision, the overall credits of Five years Degree programme is 260.

Group of subjects proposed in accordance with the UGC framework:

1. Major (Core) (Disciplinary/Interdisciplinary Major)(MJR)
2. Minor Stream (Disciplinary/Interdisciplinary Minor)(MNR)
3. Multidisciplinary/Interdisciplinary (MDC)
4. Ability Enhancement Courses (AEC)
5. Skill Enhancement (Elective) Course (SEC)
6. Common Value Added (Elective) Courses (VAC)
7. Summer Internship (INT)
8. Research Project/Dissertation (OTH)

1) Major (Core) (Disciplinary/Interdisciplinary Major)

Professional Core Courses – Architecture Design Studio, Building Construction & Services. The professional core courses consist of Architectural Design studios and design expression as well as courses such as Urban Design, working drawing, estimation, specifications and finally culminates into final year as research thesis and design thesis. The set of courses are formulated on choice based as well as application-based learning and a module-based system is adopted to expose students to a variety of choices based on their inclination and strength. The semester learning will be divided into 02 meticulously detailed modules that will be addressing specific topics to ensure that the student receives an in-depth understanding of the topic. The technical backbone of design education, the courses as a part of Building Services & Applied Engineering (BS&AE) consists of Building Material, building construction, building services, topics such as and building performance analysis are also some of the key technical topics.

2) Minor Stream (Disciplinary/Interdisciplinary Minor)

Design Minors, Humanities, History Theory and Culture

Design expression courses such as graphics and visual representation, Structural design and systems as well as High-tech structure along with detail-oriented courses like furniture and product design, estimation, specifications are included in the group of Disciplinary/Multidisciplinary Minors. The stream of humanities is very crucial to the architecture programme and is essential for developing a socially responsible and culturally aware graduate. The History, Theory and Culture stream specifically takes care of the topics related to History of Architecture and Culture and also about various design theories.

3) Multidisciplinary/Interdisciplinary

Liberal Studies & Life Skills

The liberal studies make a student aware of various multidisciplinary topics that are important for holistic development and education. Core values such as integrity, empathy and professional ethics are also included in formal learning to ensure character building of the individual. While the Liberal studies and life skill looks at various multidisciplinary topics that are important for a holistic development and education.

In liberal studies, 03 modules of 05 week each are identified per semester and the same will be delivered by subject experts. Core values such as Integrity, empathy and professional ethics are also included in formal learning to ensure a good character of the individual.

4) Ability Enhancement Courses

The subjects required by students to achieve competency in profession with special emphasis on language and communications skill are offered under this group. Apart from this the students will also be introduced to subjects like Building Information Modelling, project management and will also be imparted the required skill set for conducting research. Professional training of 16 weeks is also an integral part of the curriculum.

5) Skill Enhancement Courses (Elective)

Professional Electives:

Elective subjects are offered in a manner so that the student can have a custom roadmap to pursue the area of interest. The Professional elective component will have electives related to enhancement of knowledge that is required for the chosen discipline. These courses are aimed at imparting practical skills which enhance the employability of the students. These courses are designed as per students' needs and available institutional resources.

6) Common Value Added Courses (Electives)

Transdisciplinary Open Electives:

While the Common Value-Added courses offer a wide range of electives offered from various institutions so as to give students the exposure to other disciplines. The idea of trans-disciplinary open electives takes choice-based learning a notch higher. Elective subjects are offered in a manner so that the student can have a custom roadmap to pursue their area of interest. The transdisciplinary open electives offer a wide range of electives in various sister institutions so as to give students an exposure to other disciplines. The idea of transdisciplinary open electives takes choice based learning a notch higher. Related study program will have to be completed by a student during the entire study duration to become eligible for a graduation certificate. Each RSP will carry a weightage of 2 Credits and every year 1 RSP will be granted. Students will have to earn all the 3 mandatory RSP before registering for Final Year.

7) SUMMER INTERNSHIP:

Under this category the student will get exposure to actual work situations. They will undergo internship / apprenticeships which can be field based learning/ minor project/ community engagement and service. In B.Arch course the Office training semester planned in 8th sem is a mandatory aspect, summer internships will further encourage the students to pursue their interests related to research, workshop, travel, start-up development, etc. by engaging with the community and society at large. Summer internships will be facilitated by the institute to ensure that the students are exposed to real life situations. As Professional Training is mandatory requirement as a part of COA, summer internship will only be applicable for students opting for exit model.

8) RESEARCH PROJECT/DISSERTATION

Students choosing a 5-year Bachelor's degree (Honours with Research) are required to take up research projects/ Dissertation under the guidance of faculty members. The research outcomes of their projects may be published in peer-reviewed journals or may be presented in conferences/ seminars. Currently a research project is offered as a part of the 9th semester of the programme.

Credit Distribution:

Group of Subjects	%
1. **Major (Core)** (Disciplinary/Interdisciplinary Major) - Professional Core Courses – Architecture Design Studio, Building Construction & Services, (MJR)	50.8%

2. Minor Stream (Disciplinary/Interdisciplinary Minor) – Humanities, Structure Design, Graphics (MNR)	18.5%
3. Multidisciplinary/Interdisciplinary (MDC) Liberal Studies & Life Skills	4.6%
4. Ability Enhancement Courses (AEC)	13.8%
5. Skill Enhancement (Elective) Course (SEC) Professional Electives	7.7%
6. Common Value Added (Elective) Courses (VAC) Transdisciplinary Open Electives	5.4%
7. Summer Internship	
8. Research Project/Dissertation	

Sr. No.	Broad Category of Courses	Minimum Credit Requirement		
		3 – Year UG Program (Bachelor's Degree)	5 – Year UG Program (Bachelor's Degree-Honours)	5 – Year UG Program (Bachelor's Degree-Honours with Research)
1	Major (Core) + Summer Internship	80+4	130+4	130+4
2	Minor Stream	32	48	48
3	Multidisciplinary	12	12	12
4	Ability Enhancement Courses (AEC)	12	36	36
5	Skill Enhancement Courses (SEC)	12	20	20
6	Value Added Courses Common for all UG	10	10	10
7	Research Project / Dissertation/ OJT	-	-	-
	Total	162	260	260

CREDIT DISTRIBUTION MATRIX :

NCrF Credit Level	Semester	Major (Core)	Minor (Electives)	Multi/ Inter-disciplinary	AEC	SEC/ Internship	VAC/ IKS	RP/ OJT	Total Credit per sem	Qualification / Certificate
4.5	I	10	8	2	2	2	2	-	26	UG Certificate
First Year	II	10	8	2	2	2	2	-	28	
1st Year Total Credits		20	16	4	4	4	4	-	54	
Exit 1: Award of UG certificate in Major course(Under Graduate Certificate in Elementary Visual Studies) with 54 credits with additional 4 credits of Summer Internship in core specific NSQF defined course OR continue with Major and Minor course for next NCrF credit level										
5	III	14	4	2	2	2	2	-	26	UG Diploma
Second Year	IV	14	4	2	2	2	2	-	28	
2nd Year Total Credits		28	8	4	4	4	4	-	54	
Exit 2: Award of UG Diploma in Major course (Under Graduate Diploma in Building Science) with 108 credits with additional 4 credits of Summer Internship in core specific NSQF defined course OR continue with Major and Minor course for next NCrF credit level										
5.5	V	16	4	2	2	2	-	-	26	UG Degree (Non professional)
Third Year	VI	16	4	2	2	2	2	-	28	
3rd Year Total Credits		32	8	4	4	4	2	-	54	
Exit :3: Award of UG Degree in Major course (B.Sc. in Building Science) with 162 credits and Internship in core discipline OR continue with Major and Minor course for next NCrF credit level										
6	VII	14	6	-	2	2	-	-	22	UG Professional Degree
Fourth Year	VIII	-	2	-	18	2	-	-	22	
4th Year Total Credits		14	8	-	20	4	-	-	46	
Exit:4: Award of (B.Sc. Architecture) with total 208 credits credits and Internship in core discipline OR continue with Major and Minor course for next NCrF credit level										
7	VIII	18	6	-	-	2	-	-	26	UG Professional Degree
Fifth Year	X	18	2	-	4	2	-	-	26	
5th Year Total Credits		36	8	-	4	4	-	-	52	
Exit:5: Award of (Bachelor of Architecture) with total 260 credits										

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EXAMINATION AND TEACHING SCHEME

W.E.F. ACADEMIC YEAR 2025-26

Applicable to Batches admitted from AY 2025-26 onwards

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B. ARCH I (SEM I)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BFDE11101	MJR	Foundation Studio I	6	-	6	6	38/75	38/75	150
2	BRAR21101	MJR	Basics of Building Materials & Components	4	4	-	4	25/50	25/50	100
3	BRAR22102	MNR	Structure I	2	2	-	2	13/ 25	13/ 25	50
4	BRAR22103	MNR	Graphics & Visual Representation I	4	-	4	4	25/50	25/50	100
5	BFGN12101	MNR	Society & Culture I	2	2	-	2	13/ 25	13/ 25	50
6	BFGN13102	MDC	Liberal Studies & Life Skills I (Psychosocial skillsI)	2	2	-	2	13/ 25	13/ 25	50
7	BFGN14103	AEC	Communication Skills	2	2	-	2	13/ 25	13/ 25	50
8	BFEL15101	SEC	Professional Elective 1A (Craft Skills I)	2	-	2	2	13/ 25	13/ 25	50
9	BFEL16102	VAC	Transdisciplinary Open Elective 1B* (Indian Performing Arts)	2	-	2	2	13/ 25	13/ 25	50
			Total	26	12	14	26			650

Foundation Studio I (D) -6 Hrs, Technical (T)-0 Hrs , OSEL (O)- 0 Hrs (Distribution of Contact hours may vary as and when required depending upon the need of the course)

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

***The content of the course also includes relevant topics from Indian Knowledge System (IKS) and/or Value Added Courses (VAC) as per the guidelines of NEP/UGC/KCG along with other recommended/ module for learning flexibility.**

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B. ARCH I (SEM II)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BFDE11201	MJR	Foundation Studio II	6	-	6	6	38/75	38/75	150
2	BRAR21201	MJR	Building Materials, Construction and Environmental Studies	4	4	-	4	25/50	25/50	100
3	BRAR22202	MNR	Structure II	2	2	-	2	13/ 25	13/ 25	50
4	BRAR22203	MNR	Graphics & Visual Representation II	4	-	4	4	25/50	25/50	100
5	BFGN12201	MNR	Society & Culture II	2	2	-	2	13/ 25	13/ 25	50
6	BFGN13202	MDC	Liberal Studies & Life Skills II (Psychosocial Skills II)	2	2	-	2	13/ 25	13/ 25	50
7	BFGN14203	AEC	Communication Skills & Personality Development	2	2	-	2	13/ 25	13/ 25	50
8	BFEL15201	SEC	Professional Elective 2A (Craft Skills II)	2	-	2	2	13/ 25	13/ 25	50
9	BFEL16202	VAC	Transdisciplinary Open Elective 2B* (IKS and Health Science)	2	-	2	2	13/ 25	13/ 25	50
10			Total	26	12	14	26			650
11	BFGN16204	VAC	Related Study Programme (Mandatary non auditable credit)	2	-	-	-			
			Total with RSP Credits	28						

Foundation Studio II (D) -6 Hrs, Technical (T)-0 Hrs , OSEL (O)- 0 Hrs (Distribution of Contact hours may vary as and when required depending upon the need of the course)

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

***The content of the course also includes relevant topics from Indian Knowledge System (IKS) and/or Value Added Courses (VAC) as per the guidelines of NEP/UGC/KCG along with other recommended/ module for learning flexibility**

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B. ARCH II (SEM III)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BRAR21301	MJR	Environmental Design Studio	10	-	10	10	63/125	63/125	250
2	BRAR21302	MJR	Building Technology I – Construction, & Services	4	4	-	4	25/50	25/50	100
3	BRAR22303	MNR	Structure III	2	2	-	2	13/ 25	13/ 25	50
4	BRAR22304	MNR	History & Theory of Architecture I	2	2	-	2	13/ 25	13/ 25	50
5	BFGN13301	MDC	Liberal Studies & Life Skills III (Psychomotor Skill)	2	2	-	2	13/ 25	13/ 25	50
6	BRAR24305	AEC	Building Information Modelling -I	2	-	2	2	13/ 25	13/ 25	50
7	BFEL15301	SEC	Professional Elective 3A (Art Theory and Practices I)	2	-	2	2	13/ 25	13/ 25	50
8	BFEL16302	VAC	Transdisciplinary Open Elective 3B* (Financial Literacy)	2	-	2	2	13/ 25	13/ 25	50
			Total	26	10	16	26			650

Environmental Design Studio (D) -6 Hrs, Technical (T)-02 Hrs, OSEL (O)-02 Hrs (Distribution of Contact hours may vary as and when required depending upon the need of the course)

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

***The content of the course also includes relevant topics from Indian Knowledge System (IKS) and/or Value Added Courses (VAC) as per the guidelines of NEP/UGC/KCG along with other recommended/ module for learning flexibility**

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B. ARCH II (SEM IV)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BRAR21401	MJR	Habitat Design Studio	10	-	10	10	63/125	63/125	250
2	BRAR21402	MJR	Building Technology II – Construction & Services	4	4	-	4	25/50	25/50	100
3	BRAR22403	MNR	Structure IV	2	2	-	2	13/ 25	13/ 25	50
4	BRAR22404	MNR	History & Theory of Architecture II	2	2	-	2	13/ 25	13/ 25	50
5	BFGN13401	MDC	Liberal Studies & Life Skills IV (Cognitive Skill)	2	2	-	2	13/ 25	13/ 25	50
6	BRAR24405	AEC	Building Information Modelling -II	2	-	2	2	13/ 25	13/ 25	50
7	BFEL15401	SEC	Professional Elective 4A (Art Theory and Practices II)	2	-	2	2	13/ 25	13/ 25	50
8	BFEL16402	VAC	Transdisciplinary Open Elective 4B* **(India Constitution and Legal System)**	2	-	2	2	13/ 25	13/ 25	50
			Total	26	10	16	26			650
9	BFGN16402	VAC	Related Study Program (Mandatary non auditable credit)	2	-	-	-			
			Total with RSP Credits	28						

Habitat Design Studio (D) -6 Hrs, Technical (T)-02 Hrs, OSEL (O)-02 Hrs (Distribution of Contact hours may vary as and when required depending upon the need of the course)

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

***The content of the course also includes relevant topics from Indian Knowledge System (IKS) and/or Value Added Courses (VAC) as per the guidelines of NEP/UGC/KCG along with other recommended/ module for learning flexibility**

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B. ARCH III (SEM V)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BRAR21501	MJR	Design Realisation Studio*	12	-	12	12	75/150	75/150	300
2	BRAR21502	MJR	Building Technology III – Advanced Construction, & Services	4	4	-	4	25/50	25/50	100
3	BRAR22503	MNR	Structure V	2	2	-	2	13/25	13/25	50
4	BRAR22504	MNR	History & Theory of Architecture III	2	2	-	2	13/25	13/25	50
5	BFGN13501	MDC	Liberal Studies & Life Skills V (Affective I)	2	2	-	2	13/25	13/25	50
6	BRAR24505	AEC	Site Planning & Landscape	2	-	2	2	13/25	13/25	50
7	BFEL15501	SEC	Professional Elective 5A (Professional Competence I)	2	-	2	2	13/25	13/25	50
			Total	26	10	16	26			650

Design Realisation Studio (D) -08 Hrs, Technical (T)-02 Hrs, OSEL (O)-02 Hrs (Distribution of Contact hours may vary as and when required depending upon the need of the course)

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

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B. ARCH III (SEM VI)

Sr. No.	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BRAR21601	MJR	Master Planning and Architectural Design Studio	12	-	12	12	75/150	75/150	300
2	BRAR21602	MJR	Building Technology IV – Advanced Construction, & Services	4	4	-	4	25/50	25/50	100
3	BRAR22603	MNR	Structure VI	2	2	-	2	13/25	13/25	50
4	BRAR22604	MNR	History & Theory of Architecture IV	2	2	-	2	13/25	13/25	50
5	BFGN13601	MDC	Liberal Studies & Life Skills VI (Affective Skills II)	2	2	-	2	13/25	13/25	50
6	BRAR24605	AEC	Research Methods	2	-	2	2	13/25	13/25	50
7	BFEL15601	SEC	Professional Elective 6A (Professional competence II)	2	-	2	2	13/25	13/25	50
			Total	26	10	16	26			650
8	BFGN16602	VAC	Related Study Program (Mandatary non auditable credit)	2	-	-	2			
			Total with RSP Credits	28	-	-	28			

Master Planning and Architectural Design Studio (D) -08 Hrs, Technical (T)-02 Hrs, OSEL(O)-02 Hrs (Distribution of Contact hours may vary as and when required depending upon the need of the course)

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

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B. ARCH IV (SEM VII)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BRAR21701	MJR	Advance Architectural Design Studio	14	-	14	14	88/175	88/175	350
2	BRAR22702	MNR	High-Tech Structures & Performance Analysis	6	4	2	6	38/75	38/75	150
3	BRAR22703	MNR	Human Settlement Planning (Housing Theories)	2	2	-	2	13/25	13/25	50
4	BRAR24704	AEC	Research Skills	2	-	2	2	13/25	13/25	50
5	BFEL15701	SEC	Professional Elective 7A (Career Advancement I)	2	-	2	2	13/25	13/25	50
			Total	26	6	20	26			650

Advance Architecture Design Studio (D) -10 Hrs, Technical (T)-02 Hrs, OSEL (O)-02 Hrs (Distribution of Contact hours may vary as and when required depending upon the need of the course)

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

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B. ARCH IV (SEM VIII)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BRAR24801	AEC	Professional Training	18	-	-	-	-	225/450	450
2	BFEL15801	SEC	Professional Elective 8A (Career Advancement II)	2	-	-	-	-	25/ 50	50
			Total	20	-	-	-			500

Imp Note: Professional Elective 8A will have to be taken online by students from online portals such as NPTEL, Swayam, EduVikalp or any courses offered by Institute as per prior approval from the course validation committee at MS IDPT. The minimum time duration for the courses will have to be 8 weeks. Students shall opt for any external platform or any distance learning course, it will be permitted only if it is aligned with programme assessment criteria of the institute.

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

B. ARCH V (SEM IX)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BRAR21901	MJR	Specialisation Studio - Tectonic Studio	12	-	12	12	75/150	75/150	300
2	BRAR21902	MJR	Research Seminar	6	-	6	6	38/75	38/75	150
3	BRAR22903	MNR	Urban Design	4	-	4	4	25/50	25/50	100
4	BRAR22904	MNR	Building Economics & Construction Management	2	2	-	2	13/25	13/25	50
5	BFEL15901	SEC	Professional Elective 9A (Career Advancement III)	2		2	2	13/25	13/25	50
			Total	26	2	24	26			650

Specialisation Studio Tectonic Studio (D) -10 Hrs, Technical (T)-02 Hrs, OSEL (O)- 0Hrs
(Distribution of Contact hours may vary as and when required depending upon the need of the course)

CCE: Continuous & Comprehensive Evaluation (Formative)
SEE: Semester End Evaluation (Summative)

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B. ARCH V (SEM X)

Sr. No	Course Code	Course Type	Course Name	Credits	Teaching Scheme			Examination Scheme		
					L (Hrs)	S (Hrs)	Total	CCE	SEE	Grand Total
	1	2	3	4	5	6	7	8	9	10
1	BRAR21001	MJR	Thesis (Design / Research Project)	18	-	18	18	113/225	113/225	450
2	BRAR22002	MNR	Urban Anthropology & Ekistics	2	2	-	2	13/ 25	13/25	50
3	BRAR24003	AEC	Professional Practice	4	4	-	4	25/50	25/50	100
4	BFEL15001	SEC	Professional Elective 10A (Career Advancement IV)	2	-	2	2	13/25	13/25	50
			Total	26	6	20	26			650

Thesis (Design Research Project) (D) -14 Hrs, Technical (T)-02 Hrs, OSEL (O) -02 Hrs (Distribution of Contact hours may vary as and when required depending upon the need of the course)

General Notes:

L= Lecture, S= Studio

1. Minimum passing marks are **50% for Column no. 8 & 9** (The calculated marks will be rounded off to the nearest whole number to avoid "E & O" (Errors & Omissions) due to decimal values (e.g., 12.5 → 13)
2. It is compulsory to appear in the Semester End Evaluation (SEE) Examination to earn the respective credit for the course.
3. If a student is not able to earn the credits of the course in regular examination, the same will have to be earned through interim or backlog examination offered in the same/next semester respectively.
4. Institute shall offer a group of Electives (Professional-SEC & Transdisciplinary Open-VAC), based on the availability of experts and other relevant parameters, and may change the courses offered from time to time. Students are supposed to select any one course from each group from the list of Electives offered. Each individual student is allowed to explore any subject/course offered by/from any global platform, which is contextually and content wise relevant as well as pre approved and validated by the Institute. The credits of the course shall be given only if the student is able to achieve the minimum required benchmarks listed by the Institute.
5. Students shall have to mandatorily comply with the norm of Summer Internship (120 hours as recommended credit weightage is 30 hrs per credit, as suggested in Standard Operating Procedure Implementation of NEP-2020 Gujarat, issued on July 2023, point 3.4.2 regarding Credit weightage), if he/she is opting for EXIT model after FIRST, SECOND or THIRD year, in order to get the relevant qualification of corresponding level. (This shall be over and above the mandatory credits required to be eligible for exit option)
6. **Related Study Programme (RSP)**- Study Tours / Independent Study Programme will have to be done by the students in semester/ year break as per the academic calendar. Necessary prior approval will have to be taken from the course validation committee for the same. RSP is already included as non audited credit in 2nd, 4th and 6th semester; students with prior approval from the institute will have to complete the RSP for its credits in the respective semester.
7. **Minimum 03 Nos. of RSP** will have to be completed by a student during the entire study duration to become eligible for graduation certificate. Each RSP will carry a weightage of 2 Credits and every year 1 RSP will be granted. Students will have to earn all the 3 mandatory RSP before registering for Final Year. RSP credits are non audited credits but the earning of these credits is mandatory for granting the Final year term and award of Final degree certificate. (For further details refer Standard Operating Manual (SOM) for Special Academic Components prepared for programs of MS-IDPT)
8. Students taking the exit option after FIRST year/SECOND year shall have to complete at least one RSP/ two RSP respectively to get the relevant qualification of that level.
9. All the courses are auditable courses for calculation of SPI/CPI except for RSP
10. As the Council of Architecture (CoA) is the governing body for architectural education in India, any changes or notifications issued by CoA from time to time will be applicable to the syllabus.
11. Theory Exam or Jury/viva on practical skills learned in course, In case theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

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Semester progression rules (as received via circular no.SU/20250825/0676, dated 25-08-2025)

Promoting To Year	Promotion Eligibility to next year		
	First Year Direct Admit	Second Year Lateral Entry	Third Year Direct Admit
Second Year	At least 50% credits cleared out of the total assigned First Year credits	-----	-----
Third Year	**Condition 1:** At least 80% credits cleared out of the total assigned First year credits. At least 60% credits cleared out of the total assigned Second year credits. ***Or*** **Condition 2:** All courses of First year cleared. At least 50% credits cleared out of the total assigned Second year credits. ***Student will be allowed to progress if he/she fulfils any of the above 2 conditions.***	At least 50% credits cleared out of the total assigned Second year credits	-----

Promoting To Year	Promotion Eligibility to next year		
	First Year Direct Admit	Second Year Lateral Entry	Third Year Direct Admit
Fourth Year	**Condition 1:** All courses of First year cleared. At least 80% credits cleared out of the total assigned Second year credits. At least 60% credits cleared out of the total assigned Third year credits. ***Or*** **Condition 2:** All courses of First & Second year cleared. At least 50% credits cleared out of the total assigned third year credits. ***Student will be allowed to progress if he/she fulfils any of the above 2 conditions.***	**Condition 1:** At least 80% credits cleared of the total assigned Second year credits. At least 60% credits cleared of the total assigned Third year credits. ***Or*** **Condition 2:** All courses of Second year cleared. At least 50% credits cleared of the total assigned Third year credits. ***Student will be allowed to progress if he/she fulfils any of the above 2 conditions.***	At least 50% credits cleared out of the total assigned Third year credits

Promoting To Year	Promotion Eligibility to next year		
	First Year Direct Admit	Second Year Lateral Entry	Third Year Direct Admit
Fifth Year	**Condition 1:** All courses of First & Second year cleared. At least 80% credits cleared out of the total assigned Third year credits. At least 60% credits cleared out of the total assigned Fourth year credits. ***Or*** **Condition 2:** All courses of First, Second & Third year cleared. At least 50% credits cleared out of the total assigned Fourth year credits. ***Student will be allowed to progress if he/she fulfils any of the above 2 conditions.***	**Condition 1:** All courses of Second year cleared. At least 80% credits cleared out of the total assigned Third year credits. At least 60% credits cleared out of the total assigned Fourth year credits. ***Or*** **Condition 2:** All courses of Second & Third year cleared. At least 50% credits cleared out of the total assigned Fourth year credits. ***Student will be allowed to progress if he/she fulfils any of the above 2 conditions.***	**Condition 1:** At least 80% credits cleared out of the total assigned Third year credits. At least 60% credits cleared out of the total assigned Fourth year credits. ***Or*** **Condition 2:** All courses of Third year cleared. At least 50% credits cleared out of the total assigned Fourth year credits. ***Student will be allowed to progress if he/she fulfils any of the above 2 conditions.***

- A candidate shall not be permitted to enroll for the tenth semester Thesis or dissertation or project course unless he/she has successfully completed practical training or internship.

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Bachelor of Architecture

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	1.0	
Semester	I			Effective From	June 2025	
Course Code	BFDE11101		Course Name	Foundation Studio I		
Course Type	Major			-		
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
6	-	6	6	38/75	38/75	150

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

The minimum passing head is 50%. it is rounded to 38 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course, In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): -NA

List of Courses where this course will be prerequisite: -NA

Rationale: The foundation studio is an important process to initiate the art & design process, which aims to shape the art & design sensitivities of students and to develop their communicative abilities as well as their problem-solving skills. In the Foundation Studio, first-year Architecture, Interior and Visual Arts students are introduced to elements and fundamentals of art & design principles, methods, visual judgment, and the creative process. Studio exercises are intended to provide hands-on practice in ordering an art & design inquiry and structuring conceptual and visual arguments.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Developing Visual Literacy** Introduce students to the fundamentals of visual language through structured observation and sketching exercises. Emphasis will be placed on outdoor sketching, perspective drawing, and freehand scaled drawings of natural and built objects. Students will explore a variety of art materials including pencil, charcoal, watercolor, ink, pastels, and acrylics. Warm-up activities will encourage disciplined observation and visual analysis, fostering critical thinking and verbal articulation through the graphical interrogation of natural and man-made subjects.	30
Unit 2	**Analysis and understanding of elements and Principles of Art and Design** This unit focuses on developing fluency in the core elements and principles of art and design. Students will explore foundational concepts such as emphasis, balance, alignment, contrast, repetition, rhythm, proportion, and movement.	24

	Alongside this, they will study the systematic application of color theory, gaining insight into how color interacts with form, space, and perception to support expressive and functional outcomes in design.	
Unit 3	**Conceptualize & create** Students will engage with the basic elements of art and design to express a range of visual ideas and communicate concepts effectively through 2D and 3D compositions. The unit emphasizes interaction between elements such as light, motion, and form to create dynamic and aesthetic works. Students will explore how principles like unity, balance, and rhythm guide composition. Color theory, including psychological and symbolic dimensions, will be applied to generate meaningful palettes and motifs. Inspiration from nature will drive material exploration and concept development. Consideration of space and socio-cultural context will help refine aesthetic sensibilities and support idea evolution through prototyping and contextual application.	36
Unit 4	**Composition Writing & Compilation Craft** Students will develop narratives to accompany their visual compositions, enabling reflective articulation of concept, process, and intent. The unit culminates in the compilation and curation of work produced throughout the semester, reinforcing the practice of documentation, presentation, and self-assessment as part of the design process.	6

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	20%	20%	10%	-	40%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Fun With a Pencil: How Everybody Can Easily Learn to Draw	Andrew Loomis	Titan Books Ltd., ISBN: 9780857687609	2011	Reprint
2	Anatomy and Drawing	Victor Perard	Dover Publications, ISBN: 9780486432960	2004	Annotated Edition

3	Dynamic Figure Drawing	Burne Hogarth	Watson-Guptill, ISBN: 9780823015771	1996	1st Edition
4	The Drawing Book: Materials and Techniques for Today's Artists	Richard McDaniel	Watson-Guptill, ISBN: 9780823013920	1995	First Printing
5	Design in Architecture: Architecture and the Human Sciences	Geoffrey Broadbent	John Wiley & Sons, ISBN: 9780471105831	1973	First Edition
6	Learning Basic Design	Pradnya Chauhan	Rizvi College of Architecture, ISBN: 9788195539304	2005	First Edition
7	Design Drawing	Francis D. K. Ching, Steven P. Juroszek	John Wiley & Sons, ISBN: 9780470533697	2010	2nd Edition
8	Architecture: Form, Space, and Order	Francis D. K. Ching	John Wiley & Sons, ISBN: 9781118745083	2014	4th Edition
9	Experiencing Architecture	Steen Eiler Rasmussen	The MIT Press, ISBN: 9780262680028	1962	2nd Revised Edition

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Develop visual literacy through active processes of seeing, observing, recording, and interpreting to understand form, space, structure, and composition in the built and visual environment.	25%
CO-2	Demonstrate foundational manual skills by exploring a range of traditional and contemporary tools, techniques, and materials through hands-on making and model-building exercises.	20%
CO-3	Apply critical thinking by comparing, analysing, and abstracting key elements and principles of design and art to inform creative decisions and spatial understanding.	40%
CO-4	Explore and experiment with a broad spectrum of media and methods to cultivate conceptual clarity, technical proficiency, and confidence in creative expression.	15%

List of Open learning website:NA
List of Open Source Software:NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Developing intentional observation and strengthening visual translation skills by engaging students in the direct study of natural or built environments. Students will visually document key elements—such as form, proportion, texture, light, and perspective—through freehand sketching or alternative forms of visual representation. The aim is to cultivate perceptual sensitivity, enhance hand-eye coordination, and build confidence in observational drawing as a foundational design skill.
2	Introduction to the elements of design and basic color theory while exploring color relationships through small-scale visual compositions. Through the use of paint, collage, or digital media, students will experiment with various color schemes to understand color harmony, visual balance, and the emotional impact of color. The focus is on developing foundational knowledge of color application and its role in visual communication and design aesthetics.
3	Exploration of fundamental design principles such as harmony, balance, symmetry, contrast, rhythm, and biomimicry. Students will select or be assigned a principle and interpret it visually through different mediums and methods that are open-ended, encouraging individual exploration and experimentation. Emphasis is placed on conceptual clarity, creative freedom, and material exploration, enabling students to translate abstract design ideas into tangible visual expressions.
4	Creation of multiple 2D or 3D compositions using different design approaches—such as symmetry versus asymmetry or minimal versus complex forms—and then analyze and compare the outcomes. The aim is to evaluate the visual structure, compositional impact, and design logic of each work, encouraging students to reflect on how design decisions influence meaning, aesthetics, and viewer perception. This process builds critical thinking and design judgment skills.
5	Writing a short reflective text that explains the concept, process, and intent behind their final design exercise. The writing should include observations about material exploration, creative choices, and personal growth throughout the exercise. This reflection encourages students to articulate their design thinking, assess their creative development, and build confidence in discussing their work through a clear and thoughtful narrative.

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Bachelor of Architecture

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**I**			Version	2.0	
Semester	**I**			Effective From	June 2025	
Course Code	**BRAR21101**	Course Name		**Basics of Building Materials & Components.**		
Course Type	**Major**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
4	4	-	4	25/50	25/50	100

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems,periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): -NA

List of Courses where this course will be prerequisite: -NA

Rationale: - This course introduces students to the fundamental understanding of buildings as integrated systems of materials, components. It develops basic knowledge of building types, functions, while familiarizing students with commonly used building materials and their properties.

Through the study of building components and load transfer systems, students gain insight into how buildings are constructed and how structural elements perform. Overall, the course builds a strong foundation for technical awareness, and informed design thinking essential for architecture.

Content:

Sr. No.	Description	No. of Hours
Unit I	**Orientation** • Building Basics-1: History and evolution of building construction technology & materiality. • Building Basics-2: Understanding "building" its types, functions and classification according to its purpose and usage of spaces, building components, relationship of building elements.	4
Unit 2	**Introduction To Basic Building Materials** Materials such as Soil, Cement, Lime, Bamboo, Wood, Stone, Glass, Plastic, Metals. • Classification of Materials: different types of materials-natural/man-made, source of materials, use and application of different materials. • Properties of Materials: physical and chemical properties, manufacturing process, various tests to check strength of materials, different grades of materials.	32

Unit 3	**Introduction to Building Components** • Components of Building: Concepts of substructure and superstructure, identifying different building components and their role in building assembly: foundation, plinth, beam, column, wall, stairs, openings (door, window, ventilators), sill, lintel, weather shed, parapet, balcony, arches, dome, valute.	12
Unit 4	**Introduction to Building System** • Load transferring systems: Introduction to load bearing, frame and composite structure • Building Loads: Types of loads on building, various types of load and its transfer actions. • Structural Components: Behaviour of building elements in different types of Structural systems, various structural and non-structural components (beams, columns, slab, staircase, balcony, canopy, weather shed, sill, lintel etc) and its significance in building.	16

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
30%	30%	20%	5%	5%	10%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Building Construction Illustrated	Ching, Frank (Francis D.K.)	John Wiley & Sons, Inc., Hoboken, New Jersey	2014	-
2	Building Structures Illustrated: Patterns, Systems, and Design	Ching, Frank (Francis D.K.), Barry S. Onouye, Douglas Zuberbuhler	John Wiley & Sons, Inc., Hoboken, New Jersey	2009	-
3	Building Construction, Volume 1 to 4	McKay, W.B.	Longman Group Ltd., London	2005	-

4	Building Construction, Volume 1 to 5	Barry, R.	Blackwell Science Ltd.	1999	-
5	Building Construction	Kumar. Sushil	Standard Publishers. Delhi	2003	19th Edition
6	Building Construction: Materials and Types of Construction	Rangwala, S.C.	John Wiley and Sons. New York	1963	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO -1	Understand and classify buildings based on their types, purpose, and spatial usage.	10%
CO -2	Identify and differentiate types of building materials with its properties & applications in building and in various forms.	40%
CO-3	Identify building components from sub structure to super structure and understand the role of each building component in the overall building system.	25%
CO-4	Understand different types of loads & load transfer in buildings, classify buildings on the basis of structural systems for load transfer.	25%

List of Open learning website:

List of Open Source Software:

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Students will conduct a market survey to explore various types of building materials commonly used in construction and design.Students will gather data on each material's properties, cost, availability, and suitable applications. Based on their findings, they will prepare a material board that visually presents samples, images, textures, and key information about selected materials.
2	Case Study of various building materials along with its construction techniques.
3	Students will understand exploded diagrams/models of the building (load bearing and frame structure) and label all major components from the foundation (substructure) to the roof (superstructure). They will describe the function of each part in written or diagrammatic form and explain how it contributes to the performance and stability of the building.
4	Students will observe and document various structural and non-structural components in a selected building (on-campus or through reference images). Key components to be identified include the foundation, columns, beams, slabs, walls, staircases, lintels, sills, balconies, and canopies. For each component, students will sketch and label its position, note its material, and describe its purpose and interaction within the overall building system

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Bachelor of Architecture

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	2.0	
Semester	I			Effective From	June 2025	
Course Code	BRAR22102	Course Name		Structure I		
Course Type	Minor					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): -NA

List of Courses where this course will be prerequisite: -NA

Rationale: - The course focuses on the fundamentals of force, structural systems, and behaviour of component behavior under various loads. It builds a foundational understanding of stability, equilibrium, and structural response, essential for safe and effective design. Through concepts like trusses, beams, and load analysis, students gain insights into how structures function and support architectural intent.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Introduction of Force, Force Systems and Structural Components** • **Force & Force Systems:** Introduction to force, its types, characteristics, and equilibrium. Force systems (coplanar-concurrent and coplanar-non-concurrent), their resultants, moments, couple moments, and the concepts of stability and determinacy. • **Structural Components:** Various structural components such as trusses, arches, domes, and vaults, and their behaviour under load with reference to different materials. • **Trusses** –Introduction, types, behaviour, usage, advantages, and analysis.	10
Unit 2	**Distributed Forces:** • Centroid and moment of inertia of standard and composite geometries, their importance, and radius of gyration.	8

Unit 3	**Beams:** • Types of loads (concentrated and uniformly distributed), types of support conditions and their reactions. Bending moment and shear force diagrams (cantilever, simply supported, and continuous beams), their importance, and the location and magnitude of maximum bending moment and shear force.	14

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
0%	44 %	0%	56 %	0%	0%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1.	Mechanics of structures Vol.1: Strength of materials.	Junnarkar,. S.B	Charotar Publishing House 978-9380358190	2017	-
2.	Mechanics of structures Vol.2: Theory and analysis of structures.	Junnarkar,. S.B	Charotar Publishing House 978-9380358206	2017	-
3.	Intermediate Structural Analysis.	Wang C. K.,	Tata McGraw Hill book Company, New Delhi 978-0070688177	1982	-
4.	Strength of Materials. Mechanics of Materials.	Ryder G.H, Mcmillan Gere & Timoshenk.	CBS Publishers & Distributors, Delhi. 978-8123909026 978-0534921734	-	-
5.	Vector Mechanics for Engineers .- Statics	Bear & johnston	McGraw Hill Education 978-0073398134	-	-
6.	Engineering Mechanics - Statics & Dynamics	Desai & Mistry	Charotar Publishing House 978-9380358725	-	-
7	Applied Mechanics	Junarkar & H.J.Shah	Charotar Publishing House978-8185594290	-	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	To understand the different types of loads on buildings, their effects on the structure, load transfer mechanisms, and the behaviour of various structural components.	12.5 %
CO-2	To understand forces and force systems, equilibrium, centroids, and moment of inertia.	25 %
CO-3	To understand the behaviour and determinacy of beams and trusses.	62.5 %

List of Open learning website: NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	• Identify and describe the different types of loads that act on buildings (such as dead load, live load, wind load, seismic load, etc.), and understand the behavior of various structural components under these loads. • Understand support types, equilibrium conditions, and the stability of structural components such as slabs, beams, columns, and trusses, along with load transfer mechanisms, through on-site experiential learning.
2	Understand and calculate the centroid and moment of inertia about the centroidal X-axis and Y-axis for various types of cross-sections of structural members such as I-sections, T-sections, L-sections, hollow rectangular sections, etc.
3	Calculate the support reactions of a truss for a given loading and determine the internal forces in each truss member using the graphical method of analysis. Identify the nature of each force (tension or compression) and tabulate the results clearly.
4	Calculate and draw shear force and bending moment diagrams for simply supported and cantilever beams subjected to various types of loads (point loads and uniformly distributed loads).

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	2.0	
Semester	I			Effective From	June 2025	
Course Code	BRAR22103	Course Name		Graphics & Visual Representations I		
Course Type	Minor					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
4	-	4	4	25/50	25/50	100

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): -NA

List of Courses where this course will be prerequisite: -NA

Rationale: - The course focuses on "Visual Literacy" which enables students to represent ideas technically and visually accurate. This course introduces students to the fundamental techniques of architectural drawing and development of appropriate manual and computer skills for visualization and technical representation of built forms in different types of drawings. The course also acts as a bridge building cognitive and motor skills & qualifies students to understand the importance of scale in representing drawings.

Content:

Sr. No.	Description	No. of Hours
Unit I	**Manual Drafting Tools and Techniques** • Introduction to drafting tools and its application. • Introduction to fundamental elements of drawing - lines, line type and intensity. • Developing & exploring various techniques to use typography – styles and character	8
Unit 2	**Scale and Proportions** • Develop a sense of scale and proportions of the given object/space/ form. • Develop understanding and applicability of scale in drawings.	8
Unit 3	**Drawing Literacy** • Develop understanding of Design drawings - Plans, Sections and Elevations. • Drafting technical drawings based on learnings of Unit-I & II	16
Unit 4	**AutoCAD Tools and Techniques** • Introduction to AutoCAD tools and its application	16

	• Learning to draw Plan, Section, Elevations in the AutoCAD software • Understanding the layer system, layer manager, Scales, related line weights. • Introduction to Layouts – Panel Composition with various scales.	
Unit 5	**Photoshop & its Techniques** • Introduction to editing & rendering tools and its application. • Understanding Layer concepts • Techniques of digital rendering	16

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	30%	30%	20%	-	10%

Legends: R: Remembrance, U: Understanding: A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1.	Drawing, Space, Form, Expression	Francis D. K. Ching	John Wiley & Sons	2015	-
2.	'Engineering Drawing And Graphics + AutoCAD'.	K. Venugopal	New Age International	2007	-
3.	'Architectural Graphic Standards'.	Dennis J. Hall, Nina M. Giglio	John Wiley & Sons,	2015	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand architectural drafting tools and their application	10%
CO-2	Understand the concepts of architectural drawing techniques	20%
CO-3	Interpret and produce orthographic drawings using manual and digital tools. (Plan, Section, Elevation)	30%

CO-4	Create and plot drawings using AutoCAD, including layout preparation and layering systems.	30%
CO-5	Developing digital techniques	10%

List of Open learning website:NA
List of Open Source Software:NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Line types, intensities and typography sheets (manual)
2	Scale drawings of everyday objects and spatial elements
3	Drafting orthographic drawings of a space (manual + AutoCAD)
4	Drawing layer management exercise in AutoCAD
5	Layout and plotting assignment in multiple scales
6	Preparing basic architectural drawing set (plan section elevation) (manual + AutoCAD)
7	Assignments enhancing digital skills

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	I			Version	1.0	
Semester	I			Effective From	June 2025	
Course Code	**BFGN12101**	Course Name		**Society & Culture I**		
Course Type	**Minor**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%. it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): -NA

List of Courses where this course will be prerequisite: - NA

Rationale: - This course builds a strong contextual and cultural foundation for creative and spatial practices. It offers insights into how built forms and artistic expression were designed not just for utility but also for meaning. Understanding diverse histories fosters respect for pluralism and prepares students to design responsibly in multicultural settings. This course links design with anthropology, sociology, politics and religion encouraging a holistic design approach.

Content:

Sr. No.	Description	No. of Hours
Unit 1	Introduction to the role of culture and society; Introduction to evolution of Man and concomitant architecture in early settlements	6
Unit 2	River valley civilizations and Cultures – Indus valley, Nile valley, Mesopotamia, Yellow River	6
Unit 3	Age of Empires- Han China, Persian, Greek City-states, Alexander's empire	8
Unit 4	Rise of Buddhism and concomitant cultural transformation, The Mauryas in India The Roman Republic and Empire-its intellectual and cultural achievements, Downfall of Rome.	8
Unit 5	Rise of Christianity and concomitant religious and cultural consequences	4

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	U Level	A Level	N Level	E Level	C Level
10%	20%	20%	20%	10%	20%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1.	World History 101: From Ancient Mesopotamia and the Viking Conquests to NATO and Wikileaks, an Essential Primer on World History.	Head, Tom	Adams Media, Avon, Massachusetts	2017	
2.	Mesopotamian Architecture and Town Planning. B.A.R., Oxford	Kubba, Shami	B.A.R., Oxford	1987	
3.	Life In Neolithic Farming Communities.	Kuijt, Ian	Kluwer Academic Publishers, New York	2002	
4	World History: From the Ancient World to the Information Age.	Parker, Philip	Eyewitness Companions, Dorling-Kindersl ey, London	2017	
5	Early India: From the Origins to AD1300.	Thapar, Romila	University of California Press, Berkeley	2002	
6	The Greeks	Kitto, H.D.F.	Penguin Books Ltd.	1950	
7	Daily Life in Ancient Rome: The People and the City at the Height of the Empire.	Henry T.,	Penguin Books Ltd.	1991	
8	The Wars of Alexander the Great: 336–323 BC: 26 Essential stories	Heckel, Waldemar	Osprey Publishing	2002	

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Analyse historical processes that shape individuals, societies and communities from early societies to 1st century CE	25%
CO-2	To describe the influence of political ideology, social structures, cultural articulations, and dominant thought and natural environment on events and narratives from which styles, movements and innovations have emerged.	30%
CO-3	To place events, built forms, important persons and historical developments in space-time continuum	20%
CO-4	To analyse the built environment and sacred structures as the product of culture and its articulation in built forms	25%

List of Open learning website:NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Create a tableau/diorama based on any civilization/culture studied
2	Correlate the principles of a religion studied with its articulation in built structure
3	Create any artefact from any civilization with the help of a medium studied
4	Make a powerpoint presentation on a given topic and present it before the class

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**I**			Version	1.0	
Semester	**I**			Effective From	June 2025	
Course Code	**BFGN13102**		Course Name	**Liberal Studies & Life Skills I** (Psychosocial Skills I)		
Course Type	**Multidisciplinary/ Interdisciplinary**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%, it is rounded to 13 marks to avoid "E&O"(Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): -NA

List of Courses where this course will be prerequisite: -NA

Rationale: - This course fosters empathy, self-awareness, and foundational life skills essential for designers. Through exploration of human behaviour, communication, and ethical thinking, students begin to understand the societal impact of design. It builds a strong base in professional ethics, encouraging responsible, sensitive, and context-aware creative practices.
This domain based structure is intended to encourage cross disciplinary engagement, and thematic continuity beyond core disciplinary boundaries.
The topics under Liberal Studies & Life Skills I are subject to change under the availability of resource persons.However the domain for this course will remain 'Psychosocial skills I'.

Following is the list of tentative modules.

Liberal Studies & Life Skills I (Psychosocial skills I)

- Public Speaking
- Team Building

Description of course

Public Speaking

This Liberal Studies & Life Skills module introduces students to the foundations of public speaking as a key psychosocial and professional life skill, with a focus on confidence, clarity, and audience awareness.

Through short talks, peer feedback, and reflective exercises, students learn how to structure ideas, manage stage fright, and use voice, body language, and visuals effectively in academic and design-related contexts. The course emphasizes everyday communication situations such as studio presentations, juries, group briefings, and community interactions, helping students articulate their thoughts respectfully and persuasively. By engaging in individual and small-group speaking tasks, learners also develop empathy, active listening, and constructive feedback habits that support healthy interpersonal relationships.

Team Building

This Liberal Studies & Life Skills module focuses on understanding and practicing the dynamics of effective teamwork as an essential psychosocial skill in creative and professional environments. Students explore roles within groups, principles of collaboration, and strategies for managing conflict, diversity, and differing opinions in project settings. Through interactive activities, simulations, and short design or art-related team tasks, they experience goal setting, shared responsibility, and collective problem solving. The course encourages self-awareness, respect for others, and responsible communication so that students can contribute positively to studio teams, community engagements, and interdisciplinary projects from the first semester onward.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	**The Art of Self-Projection** Overcoming stage fright, breath control, posture, and non-verbal communication. Focus on "Survival Basics" of standing in front of an audience.	8
Unit 2	**Structuring the Narrative** Organizing ideas for clarity; opening hooks and strong conclusions. "Basic Care" for the audience by ensuring the message is easy to follow.	8
Unit 3	**Presentation Tools & Design Juries** Using visuals effectively and handling Q&A sessions. Simple "repairs" for when a presentation goes wrong; safe handling of technical equipment and props.	8
Unit 4	**Team Dynamics & Collective Problem Solving** Group briefings, managing conflict, and peer feedback. "Emergency handling" of team disagreements and collaborative task execution.	8

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	20%	40%	5%	15%	10%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
The respective course faculty will determine and recommend reference materials according to the specific requirements of the course content.					

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to demonstrate enhanced self-awareness and interpersonal sensitivity in academic and studio contexts, applying basic psychosocial principles to communicate and collaborate more effectively.	50%
CO 2	Students will be able to participate constructively in group and community situations by practicing respectful dialogue, shared responsibility, and supportive behaviours that foster emotionally safe and inclusive learning environments.	50%

List of Open learning website: NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
The respective course faculty will determine the exercises/assignments based on the topics offered and will convey the same to the students.	

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title. Mention will be made of the domain acquired after completion of the course in the semester end results issued by the Sarvajanik University.
- Evaluation of Liberal Studies and Life Skills shall be **developmental and formative in nature**, aligned with the objectives of the component.

- Assessment methods may include:
  - Participation and engagement
  - Reflective journals or submissions
  - Group activities and exercises
  - Demonstrated competencies or behaviours
- Quantitative grading shall be used only where appropriate and approved. Emphasis shall be placed on meaningful feedback rather than comparative ranking.
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding Liberal Studies and Life skills will remain the prerogative of the institute and appropriate decisions for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings.
- For further details refer Standard Operating Manual (SOM) for Special Academic Components prepared for programs of MS-IDPT

SARVAJANIK UNIVERSITY
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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**I**			Version	1.0	
Semester	**I**			Effective From	June 2025	
Course Code	**BFGN14103**		Course Name	**Communication Skills**		
Course Type	**Ability Enhancement Course (AEC)**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%, it is rounded to 13 marks to avoid "E&O" (Errors & Omissions)arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): -NA

List of Courses where this course will be prerequisite: -NA

Rationale: -Communication skills are extremely important for not only succeeding in life but also developing inter-personal relationships & networking . The subject also develops critical competencies such as verbal & written expression, active listening & inter-personal skills - Enabling students to advocate for their Impactful creative work .

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Speaking Module** • Significance of Communication skills • Communication Process - significant features involved • Personal Introduction • Retention and reproduction of texts • Debates, Public speaking & Questioning skills	6
Unit 2	**Reading Module** • The art of effective reading • Overcome common reading obstacles • Reading for better Comprehension	6
Unit 3	**Listening** • Types of listening & good listening practices	6

	• Summary of spoken texts • Writing from oral instructions	
Unit 4	**Writing Module** • Paragraph Writing – Re-order paragraphs and sequential ordering • Creative writing – letters, paragraphs & emails. • Building arguments • Common grammatical mistakes, usage of grammar	8
Unit 5	**Non-verbal** a. Communicating through Pictorial representations, illustrations, spatial arrangements of words, interpreting gestures, body language, facial expressions b. Interactive exercises	6

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	U Level	A Level	N Level	E Level	C Level
10%	20%	25%	15%	-	30%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Communication Skills.	Kumar, Sanjay, LataPushp	Oxford University Press, New Delhi	January 1, 2015	Second Edition
2	The Communication Book: 44 Ideas for Better Conversations Every Day	Mikael Krogerus & Roman Tschäppeler	W.W. Norton & Company ISBN: 978-1324001980	March 24, 2020	Illustrated Edition
3	Effective Communication Skills	Kul Bhushan Kumar & R.S. Salaria	Khanna Publishers ISBN: 978-9382609940	2016	first edition

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Demonstrate a better understanding of the communication process by identifying, explaining and applying strategies as they relate to a variety of contexts (interpersonal, group, public and professional)	25%

CO-2	Display competence in oral, written and visual communication	30%
CO-3	Identify and apply strategies for listening with attention	20%
CO-4	Demonstrate the ability to write fluently while making an optimum use of correct vocabulary and grammar	25%

List of Open learning website:

- https://www.buildofy.com/
- https://www.architecturaldigest.in/
- https://www.archdaily.com/
- https://www.theartnewspaper.com/keywords/books
- https://www.artrenewal.org/

List of Open Source Software:

- Wordup - Vocabulary app
- Word of the day - App
- Grammarly- App to make professional sentences and messages

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Introduction and narrate a description of a significant event of your life .
2	Introduction ,teaching and application of 100 Design Vocabulary words (learning and speaking)
3	Watch a given documentary (audio-visual) , read articles and answer the questions .
4	Make presentation in groups , create diagrams and present orally in classroom (Master Architects, Artist, Designer and their projects)

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	I			Version	1.0	
Semester	I			Effective From	June 2025	
Course Code	**BFEL15101**	Course Name		**Professional Elective 1 A (Craft Skills I)**		
Course Type	**Skill Enhancement (Elective) Course (SEC)**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%. it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.
SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: -

The Craft- Skill Domain lies in its ability to bridge the gap between abstract design theory and tactile material reality through a "thinking through making" philosophy. By engaging with diverse mediums—ranging from the structural precision of paper folding to the expressive rhythms of calligraphy and textile arts—students develop essential hand-eye coordination and material intelligence that digital tools cannot replicate. These electives foster a maker's mindset, encouraging learners to transform humble or recycled materials into sophisticated prototypes, textures, and forms. This hands-on experimentation cultivates the patience, craftsmanship, and iterative problem-solving skills necessary for professional practice. Ultimately, this domain provides a foundational spatial and visual vocabulary that directly enriches the creative process, ensuring that students in architecture, interior design, and visual arts can translate complex concepts into tangible, impactful realities.

For all electives offered under the domain Professional Elective 1A (Craft Skills I), the above prescribed course code and course title shall remain common.

If the suggested elective course content overlaps with the core course of any bachelor programme, the expert/resource person shall design exercises or tasks that emphasize complementary and distinct aspects beyond those covered in the core course syllabus.
The topics under professional electives are subject to change depending on the availability of resource persons.However the domain for this elective will remain 'Craft Skills 1'.

Following is the list of tentative electives.

Professional Elective 1A (Craft Skills I)

- Paper Mache
- Print Making
- Textile Dyeing & Printing
- Origami & Kirigami
- Calligraphy

Description of course

Paper Mache
This elective introduces students to paper mache as a versatile, low-cost craft medium for creating three-dimensional forms, reliefs, and surface textures. Learners explore basic techniques of pulp preparation, layering, casting, and finishing, along with safe use of tools, adhesives, and colours. Simple exercises move from small objects and masks to exploratory models related to space, structure, and narrative, encouraging experimentation with proportion, texture, and composition. The course emphasizes patience, hand–eye coordination, and material sensitivity, helping students understand how humble, recycled materials can be transformed into expressive forms relevant to model-making, prototyping, and visual storytelling in design and visual arts.

Print Making
This elective familiarizes students with introductory printmaking processes as a way to think through images, patterns, and repetition. Through hands-on practice in basic techniques such as mono-printing, stencil printing, and simple block or linocut printing (as per facilities), learners explore positive–negative relationships, layering, and registration. Assignments encourage the development of small series or sets of prints that investigate motif, rhythm, and variation, with attention to line, texture, and contrast. The course cultivates careful craftsmanship, iterative working, and an understanding of how a single plate or block can generate multiple outcomes, linking craft skills to poster design, surface graphics, and experimental visuals for architecture, interiors, and visual arts.

Textile Dyeing & Printing
This elective introduces the fundamentals of textile dyeing and printing as a tactile and visual craft practice. Students learn basic methods such as tie-and-dye, block or stencil printing, and simple resist techniques, while becoming aware of fabric types, dyes, and safe studio practices. Exercises focus on developing small

swatches and coordinated sets that explore colour combinations, repeat units, borders, and placement, encouraging sensitivity to scale and tactility. The course highlights how traditional and contemporary textile practices can inform pattern, surface design, and cultural narratives, helping learners connect craft processes with interior elements, soft furnishings, costume, and visual identity work.

Origami & Kirigami

This elective engages students with origami (paper folding) and kirigami (folding with cutting) as structured yet playful techniques for generating forms, patterns, and spatial ideas. Beginning with simple folds and modular units, learners progress to more complex constructions, exploring how two-dimensional sheets can be transformed into three-dimensional objects, reliefs, and deployable surfaces. Attention is given to precision, sequence, and structural behaviour of folded forms, allowing students to see how these techniques relate to concepts of tessellation, packaging, pop-ups, and even architectural or interior elements such as screens and light fixtures. The course nurtures patience, fine motor skills, and an analytical appreciation of geometry through hands-on making.

Calligraphy

This elective introduces calligraphy as the art of expressive handwriting and letterform design. Students experiment with different writing tools such as broad-nib pens, brushes, and improvised instruments, learning to control stroke, pressure, rhythm, and spacing. Through practice with basic scripts and variations, they develop sensitivity to proportion, contrast, and alignment, as well as the relationship between text and blank space. Assignments may include nameplates, short quotations, monograms, or logotype explorations, linking calligraphy to signage, identity design, and composition in design presentations. The course emphasizes steady practice, concentration, and respect for scripts and languages, while encouraging personal style and experimentation.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	Material & Tool Foundation	6
Unit 2	Basic Techniques & Syntax	10
Unit 3	Iterative Exploration	6
Unit 4	Design Application Project	10

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
5%	15%	25%	15%	10%	30%

Legends: R: Remembrance, U: Understanding, A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the final evaluation may vary slightly from the above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
The respective course faculty will determine and recommend reference materials according to the specific requirements of the course content.					

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to demonstrate basic proficiency in selected craft techniques by safely handling tools and materials, and producing small-scale artefacts or samples that show control, precision, and care in making.	50%
CO 2	Students will be able to explore and apply craft processes to support design and visual thinking, using hands-on experimentation with form, pattern, texture, and composition to inform their work in architecture, interior design, and visual arts.	50%

List of open learning websites:NA
List of Open Source Software:NA

List of Exercises:

Sr. No.	Studio Exercises/Assignments for CCE
Exercises/assignments may vary periodically as per availability of resource person / subject expert.	

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title with domain. No specification or mention will be made of the specific skill/ ability/ competence acquired after completion of the elective in the semester end results issued by the Sarvajanik University.

- Evaluation of Professional Electives shall be conducted by the designated faculty member or subject expert or the designated panel appointed as examiner by the Institute
- The evaluation framework may include, as appropriate:
    - Continuous assessment
    - Studio or workshop outputs
    - Reports, portfolios, or presentations
    - Applied projects or assignments
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding electives, will remain the prerogative of the institute and appropriate decisions for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings.
- For further details refer Standard Operating Manual (SOM) for Special Academic Components prepared for programs of MS-IDPT.

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester I)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**I**			Version	1.0	
Semester	**I**			Effective From	June 2025	
Course Code	**BFEL16102**	Course Name		**Transdisciplinary Open Elective I B** (Indian Performing Arts) -		
Course Type	**Common Value Added (Elective) Course (VAC)**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%, it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.
SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.
Prerequisite (if any): - NA
List of Courses where this course will be prerequisite: - NA

Rationale: Transdisciplinary Open Elective 1B, titled *Indian Performing Arts*, is conceived as an experiential and integrative learning domain that introduces first-semester students to the rich spectrum of India's performative traditions. Rooted in the framework of the Indian Knowledge System (IKS), this elective positions performing arts not merely as cultural expressions, but as embodied forms of knowledge that engage space, time, rhythm, narrative, and sensory perception.

The domain encompasses four key verticals—Dance, Drama, Music (Instrumental), and Music (Vocal)—each offering a distinct yet interconnected lens to understand how artistic practices shape and communicate meaning. Through a blend of lectures, demonstrations, guided exercises, and reflective engagement, students are introduced to foundational concepts such as movement vocabulary, rhythm (tala), melody (raga), voice, gesture, staging, and improvisation. Emphasis is placed on experiential learning, observation, and participation rather than technical mastery.

A central objective of this elective is to build meaningful bridges between performing arts and design disciplines. Students explore how principles like harmony, proportion, rhythm, symmetry, narrative, and spatial organization manifest across art forms and can inform architectural thinking, interior environments, and visual compositions. For instance, dance introduces the idea of the body as a spatial instrument; drama

highlights the role of narrative and atmosphere in shaping user experience; while music deepens the understanding of rhythm, sequencing, and emotional resonance in design.

The course also fosters cultural sensitivity by exposing students to diverse regional traditions, philosophical underpinnings, and historical contexts of Indian performing arts. It encourages learners to appreciate intangible heritage and recognize its relevance in contemporary creative practices.

By engaging multiple senses—visual, auditory, and kinesthetic—the elective nurtures creativity, empathy, and interdisciplinary thinking. It supports the development of observational skills, aesthetic awareness, and expressive abilities, which are essential for holistic design education.

Overall, Transdisciplinary Open Elective 1B serves as a foundational platform that enriches students' creative perspectives, enabling them to draw inspiration from India's artistic heritage while developing innovative approaches to spatial and visual design.

Following is the list of tentative electives.

Transdisciplinary Open Elective 1B (Indian Performing Arts)

- Dance - IKS Context
- Drama
- Music (Instrumental) - IKS Context
- Music (Vocal) - IKS Context

Description of course

Dance - IKS Context
This elective introduces students to Indian dance traditions as expressions of embodied knowledge, cultural memory, and spatial practice within the broader domain of Indian performing arts. Students explore the historical evolution of classical and folk forms, basic body vocabulary, rhythm, and gesture, and how these reflect philosophical ideas, narratives, and regional identities. Through lectures, demonstrations, and simple movement exercises, they observe how posture, patterns, and group formations create meaning in space and time, with references to architecture, stage design, and visual representation. The course encourages reflection on how notions of harmony, symmetry, ornamentation, and storytelling in dance can inspire spatial, visual, and interior design thinking suitable for students in their first semester.

Drama
This elective introduces drama as a collaborative performing art that integrates narrative, space, body, and voice, forming a key strand within Indian performing arts. Students study basic concepts of plot, character, improvisation, and staging, while situating Indian dramatic traditions from classical texts to contemporary theatre practices. Through simple enactments, table readings, and short performances, they experience how space, movement, light, props, and costume work together to construct meaning and atmosphere. The

course sensitizes students to observation, empathy, and audience perception, building foundations that are valuable for architectural spatial experience, interior ambience creation, and visual storytelling

Music (Instrumental) - IKS Context
This elective introduces Indian instrumental music as a living knowledge system that weaves together sound, time, craft, and cultural practice within Indian performing arts. Students are exposed to basic ideas of raga, tala, and improvisation, as well as the making, materiality, and acoustics of selected instruments. Through listening sessions, demonstrations, and guided practice of simple rhythmic and melodic patterns, they learn to discern mood, tempo, and texture, and to relate soundscapes to spatial and visual experience. The course highlights how rhythm and pattern in music can inform composition, proportion, and sequencing in architecture, interiors, and visual arts, making it suitable for students.

Music (Vocal) - IKS Context

This elective introduces Indian vocal music as a primary medium of expression, devotion, and storytelling within Indian performing arts and indigenous knowledge systems. Students explore the basics of voice production, swaras, raga and tala, along with the cultural contexts of devotional, classical, and folk vocal traditions. Through structured listening, recitation, and simple singing exercises, they become aware of breath, rhythm, pitch, and emotion, and how lyrics and melody shape collective experience. The course encourages connections between vocal expression and design disciplines by relating mood, cadence, and narrative in music to ideas of sequence, atmosphere, and expression in architecture, interiors, and visual arts for first semester learners

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	Foundations of Performing Arts	8
Unit 2	Modes of Expression & Basic Practice	8
Unit 3	Structure, Space & Performance	8
Unit 4	Narrative & Cultural Integration	8

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	25%	25%	15%	10%	15%

Legends: R: Remembrance, U: Understanding, A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the final evaluation may vary slightly from the above table as per the elective opted by the student.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
Note: The respective course faculty/instructor/expert will determine and recommend reference materials according to the specific requirements of the course content.					

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to interpret selected forms of Indian performing arts as expressions of cultural, spatial, and aesthetic knowledge, and relate them to foundational concepts in architecture, interior design, and visual arts.	50%
CO 2	Students will be able to apply basic principles of rhythm, composition, and embodied experience derived from Indian performing arts to simple creative exercises relevant to their design and art disciplines.	50%

List of open learning websites:NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises/Assignments for CCE
Note: The exercises of transdisciplinary electives may be subject to periodic revision based on the availability of elective options, institutional priorities, and the academic or professional expertise of the faculty offering the course.	

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title along with domain. No specification or mention will be made of the specific skill/ ability/ competence acquired after completion of the elective in the semester end results issued by the Sarvajanik University.
- Evaluation of Transdisciplinary Open Electives shall be conducted by the designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- Evaluation may include reflective assignments, participation, projects, presentations, or other suitable assessment tools aligned with learning objectives.
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding electives will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings
- For further details refer Standard Operating Manual (SOM) for Special Academic Components prepared for programs of MS-IDPT.

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	1.0	
Semester	II			Effective From	June 2025	
Course Code	BFDE11201	Course Name		Foundation Studio-II		
Course Type	Major					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
6	-	6	6	38.75	38/75	150

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%. it is rounded to 38 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: -This course introduces foundational concepts in art and design through hands-on exploration of form, space, proportion, and visual communication. Students develop core skills in three-dimensional modeling, ergonomic analysis, and graphic expression while drawing inspiration from nature and the human body. Emphasizing process, creativity, and critical observation, the course equips students with a visual language essential for further study in architecture, interior design, and visual arts.

Content:

Sr. No.	Description	No. of Hours
Unit I	**Advanced Art & Design Principles – Form Analysis** This unit focuses on the analytical exploration of complex three-dimensional forms through advanced art and design principles. Theoretical inputs will introduce students to spatial organization, structure, and volume in both geometric and organic systems. Through hands-on exercises, students will investigate the concepts of intersection, layering, and overlapping to gain a deeper understanding of formal relationships. They will be able to construct 3D tectonic models and 2D graphic representations to scale, enhancing their ability to interpret and communicate spatial ideas with precision.	12

Unit 2	**Introduction to Anthropometry and Anatomy** This unit introduces the study and documentation of human body dimensions in various static and dynamic postures, emphasizing their relevance in spatial design. Students will examine the relationship between the body and its environment, developing critical insights into ergonomic considerations and proportional systems. Through observation and measurement, students will analyze how human scale informs the design of functional and responsive spaces.	18
Unit 3	**Aesthetics and Graphics** Students will explore the transformation of natural forms into graphical compositions by studying the visual language and principles inherent in nature. This unit focuses on abstraction and interpretation of organic elements, leading to the creation of logos and graphic designs inspired by spatial themes. A minimalistic design approach will be emphasized to help students grasp the essence of visual aesthetics, composition, and clarity in communication	24
Unit 5	**Approach To Visual expressions** This unit fosters the development of a personal and coherent visual language through a process-oriented approach to design. Students will engage in iterative experimentation, self-reflection, and contextual exploration, encouraging the continuous evolution of their creative ideas. Emphasis will be placed on organizing visual elements across formats—ranging from two-dimensional layouts to three-dimensional volumes. The unit encourages critical observation and visual storytelling, preparing students for advanced interdisciplinary design practices.	42

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	10%	20%	30%	-	30%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr. No.	Title of Book / Article	Author(s)	Publisher and Details / ISBN	Year of Publication	Edition
1	Perspective Drawing Handbook	Joseph D'Amelio	Dover Publications, ISBN: 9780486432083	2004	-
2	Principles of Form and Design	Wucius Wong	John Wiley & Sons, New York, ISBN: 9780471285527	1993	-

3	Principles of Two-Dimensional Design	Wucius Wong	Wiley, ISBN: 9780471285053	1972	-
4	Materials and Methods of Sculpture (Dover Art Instruction)	Jack C. Rich	Dover Publications, ISBN: 9780486257426	1988	-
5	Sculpting the Figure in Clay	Peter Rubino	Watson-Guptill, ISBN: 9780823041028	2010	1st Edition
6	Sculpture of To-day	Kineton Parkes	T. C. & E. C. Jack, London	1922	-
7	Architecture: Form, Space and Order	Francis D. K. Ching	John Wiley & Sons, ISBN: 9781118745083	2012	3rd Edition
8	Elements of Space Making	Yatin Pandya	Mapin Publishing, Ahmedabad, ISBN: 9781890206916	2007	-
9	The Theory of Architecture–Concepts & Themes	Paul-Alan Johnson	Van Nostrand Reinhold, ISBN: 9780442003498	1994	-
10	Elements of Architecture – From Form to Place	Peter von Meiss	Routledge, New York, ISBN: 9780419224307	1998	1st Edition
11	The Language of Architecture	N. J. Prak	Mouton & Co., Hague, ISBN: 9789027944382	1968	-
12	Understanding Architecture: Its Experience, History and Meaning	Leland M. Roth	Westview Press, Philadelphia, ISBN: 9780813349039	2013	3rd Edition
13	The Dynamics of Architectural Form	Rudolf Arnheim	University of California Press, ISBN: 9780520038219	1977	-
14	Analysing Architecture	Simon Unwin	Routledge, London, ISBN: 9780415325350	2003	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Develop analytical skills to interpret and deconstruct complex three-dimensional forms using principles of art and design.	12%

CO-2	Apply anthropometric and ergonomic principles to spatial design with sensitivity to human scale and proportion.	18%
CO-3	Transform observed natural forms into graphic expressions by utilizing design principles to create visual compositions and logo-based identities.	30%
CO-4	Construct 3D models and 2D visual representations to communicate form, structure, and spatial relationships effectively. Demonstrate a conceptual and iterative design process through visual expression, refinement, and critical feedback.	35%
CO-5	Integrate elements of aesthetics, graphics, and storytelling across multiple visual formats for creative communication in art, architecture, and design.	5%

List of Open learning website: NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Select a natural object and study its formal, structural, and rhythmic characteristics. Abstract these elements using line, form, proportion, and symmetry to create a visual composition. The final outcome may include logo designs, surface graphics, or visual motifs that convey organic order in a minimalistic and expressive form. Explore various materials—such as paper, fabric, cardboard, clay, or found objects—and study their tactile and structural qualities. Through material sampling, joining, and layering techniques, students will create tactile panels or modular compositions that demonstrate contrast, continuity, and textural relationships in design.
2	Measure and sketch human figures in various postures (sitting, reaching, bending, etc.). Collect anthropometric data and analyze the body's relationship with furniture and interior space. Through scaled drawings and proportional studies, students will understand the relevance of ergonomics and human scale in functional and spatial design.
3	Create detailed drawings and scaled models of complex geometric and organic forms, focusing on principles of intersection, layering, and overlapping. Emphasis is placed on understanding spatial structure, form articulation, and volume. Construct a 3D tectonic model using materials such as cardboard, clay, or wire to explore material behavior and spatial logic. Experiment with transforming 2D surfaces into 3D forms through folding, cutting, scoring, and joining techniques. This exercise develops a hands-on understanding of surface behavior, spatial rhythm, and structural continuity, laying the groundwork for model-making and material exploration in design contexts.
4	Design expressive letterforms or typographic compositions that reflect a chosen theme, object, or emotion. Students will explore the aesthetic and communicative power of typography in design and branding. Outputs may include nameplates, typographic logos, or spatial signage using manual or digital techniques.

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	2.0	
Semester	II			Effective From	June 2025	
Course Code	BRAR21201	Course Name		Building Materials, Construction and Environmental Studies		
Course Type	Major					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
4	4	-	4	25/50	25/50	100

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course, In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: - The course introduces Brick, Stone and Wood as primary building construction materials and develops a comprehensive understanding about design of buildings based on material property, size and shape. The focus is to understand wall masonry and wood frame construction techniques. The pragmatic relationship between spatial planning, materials choices and construction technology is to be emphasized by recognizing climate as a major determinant of overall building design and form.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Brick and Brick Construction** • **Brick as a building material:** Types of bricks based on constituent materials and its manufacturing process, physical and chemical properties of different types of bricks • **Brick Masonry Construction**: Sizes of bricks, Types of bricks, bats and closers etc., classification and terminologies, standard bond construction (English & Flemish), significance of mortars, stopped ends, quoins, piers, Junctions, jambs for various thicknesses, cavity walls, brick piers, brick paving methods and techniques of masonry construction • **Finishing details:** Jointing, pointing, plastering. • **Exposed brick work:** challenges	20
Unit 2	**Construction with Stone** • **Stone Masonry Construction**: Types of stone masonry like Random Rubble, Coursed Rubble, Ashlar, etc., significance of mortars, stone piers, stone paving. • **Finishing details:** stone as a cladding material, jointing, pointing.	16

	• **Exposed stone work:** challenges	
Unit 3	**Wood Construction** • Understanding of various components of wooden construction for all building elements like floors, pitched roofs, partitions, opening, staircases, column & beam • Detail: Wooden joinery.	16
Unit 4	**ENVIRONMENT & HABITAT** • **Effect of climate on habitat, shelter and environment.** Introduction to concept of climate, weather & season, elements of climate, study of climatic zones and their effect on building design, understanding Macroclimate and Microclimate • **Climate responsive building design:** building orientation with respect to site, sun path and wind movement, role of materials and construction system, importance of horizontal and vertical shading devices & their directions, built form evolution with respect to climatic considerations, effect of landscape elements for creating micro climate.	12

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
30%	30%	20%	5%	5%	10%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr. No.	Title of Book / Article	Author(s)	Publisher Details & ISBN	Year of Publication	Publication Edition
1	Building Construction Illustrated	Frank (Francis D.K.) Ching	John Wiley & Sons, Inc., Hoboken, New Jersey. ISBN: 9781118458341	2014	5th Edition
2	Building Structures Illustrated: Patterns, Systems, and Design	Frank (Francis D.K.) Ching, Barry S. Onouye, Douglas Zuberbuhler	John Wiley & Sons, Inc., Hoboken, New Jersey. ISBN: 9780470187857	2009	1st Edition
3	Building Construction, Volume 1 to 5	R. Barry	Blackwell Science Ltd., Oxford. ISBN: Varies by volume (e.g., 0632040341 for Volume 1)	1999	Multiple Editions

4	Mitchell's Elementary Building Construction	R. Moxley	B. T. Batsford Ltd., London. ISBN: Not available	1961	-
5	Building Construction	Sushil Kumar	Standard Publishers. Delhi. ISBN: 9788180141191 (approx.)	2003	-
6	Civil Engineering Construction Materials	S.K. Sharma	Khanna Publishing. New Delhi. ISBN: 9788174092314 (approx.)	-	-
7	Manual of Tropical Housing and Building – Part 1 – Climatic Design	Otto H. Koenigsberger	Universities Press. India. ISBN: 9788173713372	1975	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand different types of bricks, stones and wood, their physical and structural properties and application as a construction material.	40%
CO-2	Learn about techniques of dealing with brick, stone and wood for various purposes including joinery and finishing details.	40%
CO-3	Understand various parameters of designing climate responsive buildings and its relationship with interior space planning and design.	20%

List of Open learning website: NA
List of Open Source Software:
Climate Consultant
EnergyPlus weather

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Prepare different types of brick closures and brick bond models/sheets .
2	Prepare different types of stone masonry models/sheets
3	Draw labeled/Model of different parts of a wooden floor, roof, staircase, column-beam system, partition and wooden joinery details.
4	Case study/book review - documentation of building and its architecture (vernacular or contemporary) per climatic zone, including sketches, climate data, building section, and analysis of form and envelope response.

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	2.0	
Semester	II			Effective From	June 2025	
Course Code	BRAR22202	Course Name		Structure II		
Course Type	Minor					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

The minimum passing head is 50%. it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: - This course aims to establish a strong foundational understanding of structural behavior in architectural elements by introducing key concepts of mechanics and their practical applications in building design.Concepts of stress, strain and basic structural analysis are to be understood with reference to properties of materials.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Simple Stresses and Strains:** • Basics of stress and strain. Normal (axial) stresses and strains – tensile, compressive, and shear. Hooke's Law and modulus of elasticity. Applications of stress and strain.	2
Unit 2	• **Analysis of Beams:** • **Flexural Stresses:** Theory of simple bending – assumptions, neutral axis, determination of bending stresses. Section modulus for various cross-sections including rectangular, circular (solid and hollow), I-section, T-section, angle, and channel sections. • **Shear stresses** :Shear stress distribution across different beam sections such as rectangular, circular, triangular, I-section, T-section, and angle sections.	18

	• **Deflection:** Introduction to deflection of simply supported & cantiliver beams using basic formulas.	
Unit 3	**Analysis of Columns:** • **Columns and Struts:** Behaviour of columns under axial and lateral loading. Different boundary conditions, slenderness ratio, buckling of columns. Euler's and Rankine's formulas for critical load determination. • **Columns Subjected to Eccentric Loads:** Behaviour of columns under eccentric loading. The middle third rule and its significance for structural elements such as columns, retaining walls, dams, etc.	8
Unit 4	Analysis of continuous & fixed beams : Introduction to the moment distribution method for analysing simple continuous and fixed beams.	4

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
0%	34.4 %	12.5%	53 .1%	0%	0%

Legends: R: Remembrance, U: Understanding: A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Mechanics of structures - Vol -I & Vol- Ii	Junarkar & H.J.Shah	Charotar Publishing House Pvt. Ltd., Anand; ISBN: 978-8185594290 (combined reference, may vary by volume)	2017	-
2	Mechanics Of Material	E.P. Popov	Pearson Education / Prentice Hall of India; , ISBN: 978-0135713569	2001	-
3	A text book of Strength of Materials	R.K.Bansal	Laxmi Publications (P) Ltd., New Delhi; ISBN: 978-8131808144	2010	-
4.	Strength of Material	R.S. Khurmi	S. Chand Publishing, New Delhi; ISBN: 978-8121926179	2005	-
5	Strength of Material	S. Ramamrutham	Dhanpat Rai Publishing Company, New Delhi; ISBN: 978-8187433924	2011	-

6	Analysis of Structure	B.C.Punamia	Laxmi Publications (P) Ltd., New Delhi; ISBN: 978-8131804283	2004	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	To understand the behaviour of beams as structural elements, the various stresses induced (such as bending, shear, and deflection), and the relationship between stress and different materials.	62.5 %
CO-2	To understand the behaviour of short and long columns and calculate their load-carrying capacity under various boundary conditions.	25%
CO-3	To understand the behaviour of fixed and continuous beams under different loading conditions.	12.5%

List of Open learning website: NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Calculate & draw Bending stress distribution diagram for a cantilever & simply supported beam for different types of load like point load & uniformly distributed load & different types of cross section area of a beam. .
2	Calculate & draw Shear stress distribution diagram for given supports & loads for various cross sections of a beam. Calculate maximum deflection for cantilever beam using direct method of analysis.
3	For the given eccentric load on a column , calculate net stress at various points . For the given data calculate Load carrying capacity of a column using Euler's & Rankine's formula for various types of boundary condition, material & cross section area.
4	For the given data of a continuous fixed beam calculate & draw bending moment distribution diagram using Moment distribution method.

SARVAJANIK UNIVERSITY

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	2.0	
Semester	II			Effective From	June 2025	
Course Code	BRAR22203	Course Name		Graphics & Visual Representation-II		
Course Type	Minor					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
4	-	4	4	25/50	25/50	100

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: - The course focuses on **"Volumetric Understanding, Rendering and Diagrams"** which enables students to represent ideas in the third dimension. This course introduces students to the fundamental techniques of architectural drawing and develops appropriate manual and computer skills for visualization and technical representation of built forms in different types of drawings. The course also helps in building cognitive and motor coordination skills. The course also enables students to represent designs in 2D and 3D rendered drawings.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Technical Drawing Set** - Drafting plans, sections, elevations. (Manual)	8
Unit 2	Understanding Concepts of perspective	8
Unit 3	**Adobe Illustrator** • Introduction to Adobe Illustrator tools and its application • Explore rendering, diagram making and sheet/panel composition	16
Unit 4	**Manual Rendering:** • Exploring various mediums of rendering and its Techniques. (Inking, Colours, Stippling, Hatching, Scribbling etc.)	16
Unit 5	**Google Sketch Up** • Introduction to Google Sketchup tools and its application • Explore 3D modelling with shadow patterns.	16

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
5%	20%	20%	20%	0	35%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of Book / Article	Author(s)	Publisher and Details	ISBN	Year of Publication	Publication Edition
1	Rendering in Pen and Ink	Arthur L. Guptill	Watson-Guptill Publications	–	2011	–
2	Adobe Illustrator Classroom in a Book	Adobe	–	–	2007	–
3	Form, Space and Order	Francis D. K. Ching	John Wiley & Sons	–	2014	–
4	Architectural Graphic Standards	Dennis J. Hall, Nina M. Giglio	John Wiley & Sons	–	2015	–

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	**Manual Skills:** • Draw technically correct Plans, Sections, Elevations with understanding of scale and proportion. • Understand concept of perspective in design & architecture • Understand, explore and apply various rendering techniques for drawings and sheet compositions.	50%
CO-2	**Computer Skills:** • Understand and apply Software – Adobe Illustrator, Sketch Up and its application in the field of design	50%

	• Render architectural 2D and 3D drawings as per global standards respecting technicality of drawings along with understanding of panel/sheet composition concepts.	

List of Open learning website: NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Exercises related to various point perspectives.
2	Drafting of plan section elevation of a small unit and rendering of the prepared drawing set
3	3D modelling and rendering
4	Panel composition.

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	1.0	
Semester	II			Effective From	June 2025	
Course Code	BFGN12201	Course Name		Society & Culture II		
Course Type	Minor					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%. it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course, In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: - Studying the *Society and Culture course* lays a foundational understanding of the values, beliefs, social systems, political ideologies, technological advancements, and artistic expressions of past societies. Since all design is not created in isolation but is a response to the cultural, religious, economic, and political context of its time, understanding the broader civilizational framework helps students interpret design and architectural developments more meaningfully.

Content:

Sr. No.	Description	No. of Hours
Unit 1	Early Christian art, Rise and Fall of Byzantine empire, Coming of Islam and its political consequences, Contribution of Islamic caliphates to knowledge systems	6
Unit 2	The Gupta period, the Sultanate and Mughal period in India	6
Unit 3	Age of Conflicts – Medieval period in Europe, Renaissance in Europe	4
Unit 4	The Period of Enlightenment and progress of Scientific Thought, Age of Revolutions	6
Unit 5	Age of Industry, Social Reforms and Social Thinkers, Colonialism and Imperialism, resultant upheavals in society.	4
Unit 6	The 20th century World Wars, Movements- Feminism, Environmental, Modern and Post- modern Thought	6

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	20%	20%	15%	15%	20%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Complete History of the World.	Overy, Richard.	Harper Collins Publishers. London	2009	-
2	The Penguin History of the World	Roberts. J. M, Westad Odd Arne	Penguin Books Ltd.	2014	6th edition
3	The Silk Roads: A New History of the World	Frankopan, Peter.	Bloomsbury Paperbacks	2016	-
4	The Swerve: How the World Became Modern	Greenblatt, Stephen	W. W. Norton & Company	2012	-
5	Guns, Germs, and Steel: The Fates of Human Societies.	Diamond, Jared	Vintage	1998	-
6	The Pursuit of Power: Europe 1815-1914,	Evans, Richard	Penguin Books Ltd	2016	-
7	The Age of Extremes: A History of the World, 1914-1991	Hobsbawm, Eric	Abacus Publishing House	1995	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CC-1	Analyse historical processes that shape individuals, societies and communities from 1st to 20th century CE	30%

CO-2	To describe the influence of political ideology, social structures, cultural articulations, and dominant thought and natural environment on events and narratives from which styles, movements and innovations have emerged.	30%
CO-3	To place events, built forms, important persons and historical developments in the space-time continuum.	20%
CO-4	To analyse the built environment as the product of culture and in relation to the special problems of design with an urbanist perspective that stresses the cultural and political context from which built forms arise. It considers both western and eastern traditions	20%

List of Open learning website: NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises /Suggestive Assignments for CCE
1	Create a collage using any medium on a given topic
2	Create a design using tessellation from any culture studied
3	Prepare a newspaper based on any assigned date from the past
4	Prepare a diorama or streetscape from a city in a particular assigned period
5.	Prepare a powerpoint presentation on the assigned topic.

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	1.0	
Semester	II			Effective From	June 2025	
Course Code	BFGN13202	Course Name		Liberal Studies & Life Skills II (Psychosocial skills II)		
Course Type	Multidisciplinary/Interdisciplinary					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%, it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.
SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: -This course focuses to build empathy, social awareness, and respect for manual work as well as students explore community dynamics, inequality, and human behavior. Emphasis on professional ethics and collaborative engagement prepares them to approach real-world challenges with responsibility, inclusivity, and integrity.

The topics under Liberal Studies & Life Skills IV are subject to change under the availability of resource persons.However the domain for this course will remain 'Cognitive Skill'.

Following is the list of tentative modules.

Liberal Studies & Life Skills II (Psychosocial skills II)

- **Psychology**
- **Social & Cultural Etiquette**

Additional potential topics can be offered time to time

Description of course

Psychology

This Liberal Studies & Life Skills module introduces basic concepts of psychology to help students understand human behaviour, emotions, motivation, and perception in everyday and design-related contexts.

It familiarizes learners with key ideas such as personality, learning, memory, stress, and group behaviour, with simple examples drawn from, peer interactions, and user experiences of spaces and visuals. Through short activities, case discussions, and reflective exercises, students explore how thoughts and feelings influence decision-making, creativity, collaboration, and well-being. The course aims to build self-awareness and empathy so that students can relate more thoughtfully to themselves, their peers, and the communities they will engage with as emerging design professionals.

Social & Cultural Etiquette

This Liberal Studies & Life Skills module focuses on social and cultural etiquette as an important psychosocial competence for functioning in diverse academic, professional, and community settings. Students are introduced to norms of respectful behaviour, verbal and non-verbal communication, digital etiquette, and inclusive practices across different social and cultural contexts. Through role plays, scenario-based discussions, and simple protocol exercises (meetings, studio reviews, emails, visits, and public events), they learn how to present themselves appropriately, manage first impressions, and navigate differences in background and hierarchy with sensitivity. The course encourages students to recognize and challenge stereotypes, practice regard for diversity, and cultivate responsible conduct as future professionals representing their disciplines and institutions.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…:		
Unit 1	The Self: Perception & Personality Introduction to how we see the world and ourselves. Exploring personality traits, motivation, and how emotions influence creativity and decision-making in the studio.	8
Unit 2	Cognition: Learning & Stress Management Understanding how we learn, the role of memory in design, and practical psychosocial tools for managing academic stress and maintaining well-being.	8
Unit 3	Social Norms & Professional Etiquette Focus on first impressions, verbal/non-verbal cues, and formal protocols for meetings, emails, and studio reviews. Mastering digital and physical presence.	8
Unit 4	Cultural Sensitivity & Inclusive Practice Navigating diversity, hierarchy, and community interactions. Challenging stereotypes and practicing empathy to work respectfully in global and local contexts.	8

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	U Level	A Level	N Level	E Level	C Level
10%	20%	40%	5%	15%	10%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
The respective course faculty will determine and recommend reference materials according to the specific requirements of the course content.					

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to explain basic psychosocial concepts related to self, others, and groups, and apply this understanding to interpret everyday academic, studio, and community interactions more thoughtfully.	50%
CO 2	Students will be able to demonstrate respectful, culturally sensitive, and responsible behaviour in face-to-face and digital settings, contributing to inclusive and emotionally safe learning and working environments.	50%

List of Open learning website: NA
List of Open Source Software: NA
List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
The respective course faculty will determine the exercises/assignments based on the topics offered and will convey the same to the students.	

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title. Mention will be made of the domain acquired after completion of the course in the semester end results issued by the Sarvajanik University.

- Evaluation of Liberal Studies and Life Skills shall be **developmental and formative in nature**, aligned with the objectives of the component.

Assessment methods may include:

- Participation and engagement
- Reflective journals or submissions
- Group activities and exercises
- Demonstrated competencies or behaviours

Quantitative grading shall be used only where appropriate and approved. Emphasis shall be placed on meaningful feedback rather than comparative ranking.

- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding Liberal Studies and Life skills will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings.
- For further details refer Standard Operating Manual (SOM) for Special Academic Components prepared for programs of MS-IDPT

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	1.0	
Semester	II			Effective From	June 2025	
Course Code	BFGN14203	Course Name		Communication Skills & Personality Development		
Course Type	Ability Enhancement Courses (AEC)					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%. it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: - Learning communication skills helps individuals express ideas clearly, listen actively, and build strong relationships. It enhances teamwork, reduces misunderstandings, and increases confidence in public speaking and interpersonal interactions.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Self-Exploration & Interpersonal Relationships** • Confidence Building & Credibility • Assertiveness and Self Confidence Training- Master techniques to overcome nervousness and speak with confidence • Emotional Intelligence (EQ) -Articulate emotions using the right language	12
Unit 2	**Group Dynamics & Team Building** • Types of listening & good listening practices - Summarize Spoken Text / Dictation • Conversations, Dialogues, and Debates • Group Discussions - Leading & Motivating	10

	• Relate emotional intelligence to the workplace. Use the concepts and techniques in the workplace	
Unit 3	**Communication Skills** • Active Listening Training • Inter Cultural Communication & Public Speaking - The art of persuasion, situational dialogues & role play. • Effective use of tone & method for speaking on the spot • Creative Writing - Technical proposals, business writings, reports, resumes etc.	10

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
5%	10%	20%	20%	20%	25%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Communication Skills.	Kumar, Sanjay, LataPushp	Oxford University Press, New Delhi	January 1, 2015	Second Edition
2	The Communication Book: 44 Ideas for Better Conversations Every Day	Mikael Krogerus & Roman Tschäppeler	W.W. Norton & Company **ISBN**: 978-1324001980	March 24, 2020	Illustrated Edition
3	Effective Communication Skills	Kul Bhushan Kumar & R.S. Salaria	**Khanna Publishers** **ISBN**: 978-9382609940	2016	first edition

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Distinguish among various levels of organisational communication and communication barriers while developing an understanding of the communication process.	30%
CO-2	Stimulate critical thinking by developing lucid writing skills and build positive self - esteem	20%

CO-3	Demonstrate improved interpersonal skills by identifying and developing a repertoire of strategies for improved communication effectiveness and demonstrate strategies in oral and written contexts.	30%
CO-4	Demonstrate positive group communication exchanges and apply appropriate communication skills across settings, purposes, and audiences, also inculcate qualities of a good team member as well as function as a team leader	20%

List of Open learning website: (only suggestive)

- www.buildofy
- www.archdaily.com

List of Open Source Software:

- Grammarly for script writing
- VN app for video editing

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Debate on contemporary issues
2	Voiceover narration video exercise
3	Peer to Peer interview
4	Real world selling challenge

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	**FADPT**			Programme	**B.Arch.**	
Year	**I**			Version	1.0	
Semester	**II**			Effective From	June 2025	
Course Code	**BFEL15201**		Course Name	**Professional Elective 2 A** (Craft Skills II)		
Course Type	**Skill Enhancement (Elective) Course (SEC)**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%. it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: - Craft Skills II is conceived as a domain that strengthens the learner's ability to translate ideas into tangible, visual, and experiential forms. In disciplines such as architecture, interior design, and visual arts, the ability to *make, document, and represent* is as critical as the ability to conceptualize. This elective builds upon foundational craft exposure and extends it into more applied, communicative, and context-sensitive practices.

The domain integrates five complementary approaches—model making, architectural photography, interior photography, wall mural creation, and traditional & contemporary crafts within an Indian Knowledge Systems (IKS) context—to offer a holistic understanding of craft as both process and medium of expression.

At its core, Craft Skills II emphasizes:

- Material intelligence and hands-on learning, enabling students to understand form, scale, structure, and detailing through physical engagement.
- Visual literacy and documentation skills, where photography becomes a tool for critical observation, analysis, and professional communication of built environments.

- Collaborative and site-responsive creation, particularly through wall murals, fostering teamwork, contextual sensitivity, and public engagement.
- Cultural grounding through IKS, encouraging students to recognize the value of traditional crafts, indigenous knowledge, and sustainable practices, and to reinterpret them within contemporary design contexts.

This course responds to the growing need for designers who are not only digitally proficient but also tactilely skilled, visually articulate, and culturally aware. It bridges the gap between making and meaning, helping students develop precision, creativity, and narrative ability across different mediums. Ultimately, Craft Skills II nurtures a well-rounded creative practitioner who can move seamlessly between concept, craft, and communication—an essential competency in today's interdisciplinary design environment.

Following is the list of tentative electives.

Professional Elective 2A (Craft Skills II)

- **Model Making**
- **Architectural Photography**
- **Interior Photography**
- **Wall Mural**
- **Traditional & Contemporary Craft - IKS Context**

Description of course

Model Making

This elective introduces model making as a key medium for exploring and communicating form, space, and structure across architecture, interiors, and visual arts. Students work with basic materials such as card, foam, clay, wire, and found objects to construct volumetric, sectional, and conceptual models at different scales. Exercises move from simple massing and abstract form studies to small spatial or compositional models, emphasizing accuracy, cutting and joining techniques, and neat finishing. The course builds on earlier craft experience to develop greater control, planning, and visualization, helping learners understand how physical models can support design thinking, presentation, and dialogue with clients or peers.

Architectural Photography

This elective familiarizes students with architectural photography as a way of observing, recording, and interpreting built form, light, and space. Learners are introduced to basic camera handling (including phone cameras), framing, exposure, and focus, with specific attention to viewpoints, perspective, and the relationship between buildings and their surroundings. Assignments include documenting facades, details, sequences of movement, and atmosphere at different times of day, encouraging students to notice proportion, texture, shadow, and human use of space. The course emphasizes ethical and respectful on-site behaviour, while helping students build a visual library and photographic skills that support studio work, portfolios, and research documentation.

Interior Photography

This elective focuses on photographing interior spaces, furniture, and details to understand and communicate spatial quality, light, and materiality. Students learn to work with available light, basic artificial lighting options, and simple supports, while exploring composition, lens choice (or digital equivalents), and vantage points appropriate to confined spaces. Exercises include documenting room layouts, corners, focal points, textures, and user activity, with attention to verticals, reflections, colour balance, and clutter control. The course helps learners develop sensitivity to how interiors are perceived and represented in design communication, enabling them to create clear, expressive images for presentations, portfolios, and client communication.

Wall Mural

This elective introduces wall mural making as a collaborative and site-responsive form of visual expression. Students learn the basics of concept development, scaling up from sketches to large surfaces, surface preparation, selection of paints and tools, and safe working practices. Through group projects on interior or exterior walls (or large panels), they explore composition, colour, typography or motifs, and the relationship between imagery, architecture, and public perception. Emphasis is placed on teamwork, respect for context and community, and the role of murals in storytelling, place-making, and identity, allowing learners from architecture, interiors, and visual arts to co-create impactful visual interventions.

Traditional & Contemporary Craft (IKS Context)

This elective familiarizes students with selected traditional and contemporary craft practices in India, situated within an Indian Knowledge Systems (IKS) perspective. Through illustrated lectures, demonstrations, videos, and where possible interactions with artisans or visits (physical or virtual), learners explore how crafts embody local materials, techniques, aesthetics, and cultural meanings. Hands-on exercises introduce basic techniques or motifs from one or more crafts (such as pottery, weaving, woodwork, metal, or folk painting), while also encouraging reflection on issues of livelihoods, sustainability, and cultural continuity. The course aims to deepen appreciation for craft intelligence and its relevance to contemporary architecture, interiors, and visual communication, inspiring students to draw from IKS-based practices in responsible and respectful ways.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	Understanding Craft, Material & Visual Language	8

Unit 2	Exploration through Techniques & Practice / Material Handling	8
Unit 3	Interpretation & Refinement of various techniques	8
Unit 4	Application, Integration & Creative Expression	8

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
5%	15%	25%	15%	10%	30%

Legends: R: Remembrance, U: Understanding, A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the final evaluation may vary slightly from the above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
The respective course faculty will determine and recommend reference materials according to the specific requirements of the course content.					

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to apply intermediate craft and visual communication skills to observe, represent, and interpret form, space, material, and context with improved precision and intentionality compared to the 1st semester level.	50%
CO 2	Students will be able to connect hands-on craft or image-making processes with design thinking by using these skills to explore ideas, document built and interior environments, and engage meaningfully with cultural and contextual narratives	50%

List of open learning websites:
List of Open Source Software:
List of Exercises:

Sr. No.	Studio Exercises/Assignments for CCE
Exercises/assignments may vary periodically as per availability of resource person / subject expert.	

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title with domain. No specification or mention will be made of the specific skill/ ability/ competence acquired after completion of the elective in the semester end results issued by the Sarvajanik University.
- Evaluation of Professional Electives shall be conducted by the designated faculty member or subject expert or the designated panel appointed as examiner by the Institute
- The evaluation framework may include, as appropriate:
    - Continuous assessment
    - Studio or workshop outputs
    - Reports, portfolios, or presentations
    - Applied projects or assignments
- The academic judgement of the evaluator and coordinator shall be final and binding. subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding electives, will remain the prerogative of the institute and appropriate decisions for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings.
- For further details refer Standard Operating Manual (SOM) for Special Academic Components prepared for programs of MS-IDPT.

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	**FADPT**			Programme	**B.Arch.**	
Year	**I**			Version	1.0	
Semester	**II**			Effective From	June 2025	
Course Code	**BFEL16202**		Course Name	**Transdisciplinary Open Elective 2 B** (IKS and Health Science)		
Course Type	**Common Value Added (Elective) Courses (VAC)**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
The minimum passing head is 50%. it is rounded to 13 marks to avoid "E&O" (Errors & Omissions) arising due to decimal value.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - NA

List of Courses where this course will be prerequisite: - NA

Rationale: - Transdisciplinary Open Elective 2B (IKS & Health Science) is designed as a holistic learning domain that integrates principles of Indian Knowledge Systems (IKS) with contemporary understandings of health and wellbeing. The course recognizes health not merely as the absence of illness, but as a multidimensional state encompassing physical, mental, emotional, social, and spiritual balance—especially relevant for students engaged in demanding creative disciplines such as architecture, interior design, and visual arts.

Positioned at the intersection of traditional wisdom and modern lifestyle challenges, this elective introduces students to practical, experience-based learning across five interconnected areas: self-defence, Indian yoga practices, health awareness, wellness and nutrition, and outreach of IKS. Each component contributes to building a comprehensive understanding of personal safety, body awareness, preventive healthcare, and sustainable living habits.

The domain emphasizes experiential and reflective pedagogy, where students actively engage through demonstrations, guided practices, discussions, and small-scale design interventions. It encourages learners to observe and analyze their own routines, environments, and behaviours, and to make informed decisions that improve their overall wellbeing. By linking concepts such as posture, ergonomics, food habits, stress

management, and spatial awareness to studio-based learning, the course ensures direct relevance to their academic and professional contexts.

A key aspect of this elective is its transdisciplinary nature, enabling students to connect knowledge from health sciences with design thinking and creative expression. Through outreach activities, students further extend their learning beyond the classroom, translating IKS concepts into meaningful communication strategies, campaigns, and community-oriented initiatives.

Aligned with the course outcomes, the elective fosters the ability to understand, interpret, and apply IKS-based health principles in everyday life. It aims to cultivate responsible, self-aware individuals who can maintain personal wellbeing while contributing positively to society. Ultimately, the course supports the development of resilience, discipline, empathy, and culturally rooted awareness, forming a strong foundation for lifelong learning and professional practice.

Following is the list of tentative electives..

Transdisciplinary Open Elective 2B (IKS & Health Science)

- Self Defence
- Indian Yoga Practices
- Health Awareness (Mental, Dental, Ayurveda, Physical, Spiritual)
- Wellness & Nutrition
- Outreach of Indian Knowledge System

Description of course

Self Defence

This elective introduces basic self defence principles as part of holistic health within the domain of IKS and health science for design students. It covers body awareness, situational awareness, boundary setting, and simple, practical techniques to respond to common threats in everyday environments, with emphasis on prevention and de-escalation rather than aggression. Through demonstrations, guided drills, and reflective discussions, students learn to read space, distance, and movement, and to understand how environment, lighting, and crowd dynamics affect safety. The course aims to build confidence, discipline, and responsibility, helping second semester students internalize personal safety as a prerequisite for effective learning, professional practice, and community engagement.

Indian Yoga Practices

This elective introduces Indian yoga practices as an integrated system of physical postures, breath control, and mental focus rooted in indigenous knowledge traditions under IKS and health science. Students learn basic asanas, pranayama, and simple mindfulness techniques along with their physiological and psychological benefits, including posture, concentration, and stress management. Short lectures connect yogic concepts such as balance, alignment, and prana with daily routines, studio work pressures, and

ergonomic concerns in creative disciplines. The course encourages students to cultivate a regular, safe practice that supports resilience, sustained attention, and a healthier relationship with their bodies and workloads.

Health Awareness (Mental, Dental, Ayurveda, Physical, Spiritual)

This elective offers a broad health awareness foundation framed within IKS and health science, emphasizing interconnected dimensions of wellbeing. Students are introduced to basics of mental health, stress and anxiety management, dental hygiene, physical fitness, Ayurveda's perspectives on body types and daily routines, and spiritual wellbeing through values, reflection, and meaning making. Sessions combine expert talks, interactive discussions, self assessment exercises, and simple lifestyle planning activities that students can adapt to hostel, home, and studio contexts. The course helps students recognize early warning signs, seek appropriate support, and design healthier daily habits that sustain long term academic and professional life.

Wellness and Nutrition

This elective focuses on everyday wellness and nutrition practices as understood within IKS and health science, with relevance to student life in design and art disciplines. It introduces fundamentals of balanced diets, traditional Indian food wisdom, seasonal and regional eating, hydration, and the impact of food choices on energy, concentration, and mood. Through food diaries, simple meal planning tasks, and discussions on processed foods, screen time, and sleep, students examine their own lifestyles and identify realistic improvements. The course encourages students to see nutrition as a designable system affecting their physical performance, creativity, and resilience during intensive studio work.

Outreach of Indian Knowledge System

This elective explores how concepts from IKS and health science can be communicated and shared with wider communities through creative outreach. Students are introduced to key ideas from yoga, Ayurveda inspired lifestyles, traditional games, local healing practices, and community health initiatives, and examine how these can be interpreted responsibly for contemporary audiences. Through group projects, they may design simple campaigns, visual narratives, small events, or installations that promote health literacy and respect for indigenous knowledge in campus and neighbourhood contexts. The course invites students to connect their emerging design and visual skills with social responsibility, empathy, and culturally sensitive communication.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	Conceptual Understanding	8

Unit 2	Experiential Practice	8
Unit 3	Critical Analysis & Improvement	8
Unit 4	Application & Creation	8

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
15%	25%	20%	15%	10%	15%

Legends: R: Remembrance, U: Understanding, A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the final evaluation may vary slighily from the above table as per the elective opted by the student.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
Note: The respective course faculty/instructor/expert will determine and recommend reference materials according to the specific requirements of the course content.					

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to explain key concepts from Indian knowledge systems related to personal and community health, and relate them to their own habits, learning environments, and future professional roles.	50%
CO 2	Students will be able to apply selected practices or principles from IKS and health science to simple, actionable strategies that enhance their physical, mental, and social wellbeing as design and art students.	50%

List of open learning websites :NA

List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises/Assignments for CCE
The exercises of transdisciplinary electives may be subject to periodic revision based on the availability of elective options, institutional priorities, and the academic or professional expertise of the faculty offering the course.	

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title along with domain. No specification or mention will be made of the specific skill/ ability/ competence acquired after completion of the elective in the semester end results issued by the Sarvajanik University.
- Evaluation of Transdisciplinary Open Electives shall be conducted by the designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- Evaluation may include reflective assignments, participation, projects, presentations, or other suitable assessment tools aligned with learning objectives.
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding electives will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings
- For further details refer Standard Operating Manual (SOM) for Special Academic Components prepared for programs of MS-IDPT.

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch I (Semester II)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	I			Version	1.0	
Semester	II			Effective From	June 2025	
Course Code	BFGN16204		Course Name	Related Study Program (Mandatary non auditable credit)		
Course Type	Common Value Added (Elective) Courses (VAC)					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	-	-	-	-	-

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/Viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite: - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: Related Study Programmes (RSPs) are conceived as integral academic components that extend learning beyond the boundaries of conventional classroom and studio pedagogy.

The primary rationale of incorporating RSPs into the curriculum is to bridge the gap between theoretical understanding and practical application. While core and elective courses establish foundational knowledge and disciplinary frameworks, RSPs enable students to test, apply, and expand these learnings in diverse contexts such as field studies, workshops, competitions, conferences, and industry-linked engagements. This ensures that learning remains dynamic, relevant, and aligned with contemporary professional practices.

RSPs are designed to foster self-managed & directed learning, critical thinking, and adaptive skills by exposing students to varied modes of knowledge delivery, including hands-on training, peer learning, digital platforms, and global academic interactions. The inclusion pre-approved workshops, and offline certifications further ensures that students remain updated with evolving technologies, tools, and methodologies relevant to their domain.

Another key rationale lies in promoting academic flexibility while maintaining institutional rigor. Through a structured approval, supervision, and evaluation mechanism, RSPs ensure that all activities undertaken by students meet defined standards of academic relevance, quality, and outcome alignment. This prevents dilution of academic intent while encouraging exploration and innovation.

RSPs also support the development of holistic competencies such as communication, collaboration, professional ethics, and cultural awareness. Participation in national and international seminars, CoA (Council of Architecture) competitions, exchange programmes, and cultural or sports representations

contributes to the overall personality development of students, preparing them for diverse professional and societal roles.

Importantly, RSPs are not treated as extracurricular engagements but as formally recognised academic components with defined workload, evaluation criteria, and credit acknowledgement. This reinforces their significance within the curriculum and ensures accountability in terms of participation, documentation, and performance.

In summary, the rationale of RSPs lies in enriching the academic ecosystem by integrating experiential, flexible, and context-driven learning opportunities, thereby producing graduates who are not only academically competent but also professionally agile and socially responsive.

Important Note:

- Field based academic studies/documentation.
- The implementation and approval of RSP should be done as per the SOM (Standard operating manual) dated 9th January 2026 attached as annexure approved in BOS & Faculty meeting held on 17th March 2026.

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester III)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**III**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BRAR21301	Course Name		Environmental Design Studio		
Course Type	**Major**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
10	-	10	10	63/125	63/125	250

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 63 marks to avoid "E & O" (Errors & Omissions) arising due to decimal value.

Prerequisite: - As per semester progression rule of Sarvajanik University / promotion eligibility.

List of Courses where this course will be prerequisite: -NA

Rationale: The studio looks at the inter-relationship of architecture and environment, emphasis is on carrying forward the understanding of vernacular architecture and fundamental principles of climatology in the design of spaces. This may be in continuation with the Related Study Programme (RSP) carried out at the end of the previous semester and the emphasis of the design studio will be to respond to the climatic concerns, local material, construction technology and arts and craft. Understanding of local material and construction techniques as well as thorough application of the knowledge of climatology forms the core of the studio. The focus shall be on understanding the variety and significance of traditional architecture, and look at the design process as a holistic approach in terms of culture, technology, value systems as well as art integration during the design process. It will also enable the understanding of basic principles of structural systems, Building Materials and Construction Technology, Water Management & Sanitation Facility in the Vernacular Architecture under study.

Content:

Sr. No.	Description	No. of Hours
Unit I	Creating a basic understanding about the climate and its impact on the building. Understanding how climatic elements like sun, wind, and rain influence architectural design for comfort, energy efficiency, and sustainability. Study of temperature, humidity, precipitation, solar radiation, and wind—how they vary and affect building performance and comfort levels.	10

Unit 2	Understanding Tools to graphically represent solar movement; useful in analyzing site-specific sun angles and designing responsive built forms. Understanding the sun's path, altitude, and azimuth to inform building orientation, shading design, and daylight planning. Calculation of horizontal and vertical shadow angles; designing shading devices for windows, courtyards, and facades for thermal comfort.	10
Unit 3	Learning to use the materials in natural forms, to create spaces and objects of use, First take on sustainable development by learning to reuse commonly available material & technology.	20
Unit 4	Introduction to Surveying and Leveling techniques for measuring land and representing terrain accurately. Topics include plane table survey for direct plotting on-site, dumpy level for establishing ground levels, and contour analysis for understanding topography. These tools help in site planning, drainage design, and assessing land suitability for architectural projects. Introduction to prevalent revenue documents to understand the aspects of transaction of land / plot as a premise for subsequent development approval process.	20
Unit 5	DESIGNING WITH CLIMATE This unit shall address the following aspects: • Creating a deeper understanding of climatology, and fundamentals of passive architectural design in design of a singular function building / space. • Provide avenues and opportunities for the students to unleash the power of imagination, emerging out of rational and innovative premises and ideas. • Learning about the Vernacular Architecture, and attempting to apply the fundamentals into design 8 week long design exercise with necessary understanding of developing a concept, design development, technical drawing, model, sketches,3D etc	80
Unit 6	Technical Drawing Delivery of the design exercise to depict the understanding of the student as well as the translation of ideas and concepts into technically correct drawings.	20

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
0%	15%	15%	20%	10%	40%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of Book/Article	Author(s)	Publisher and Details	Year of Publication	Publication Edition
1	Architecture without Architects	Bernard Rudofsky	Museum of Modern Art, New York	1964	-
2	Architecture: Form, Space and Order	F. D. K. Ching	Hoboken: John Wiley & Sons	2012	3rd Ed.
3	Design with Nature	Ian McHarg	Natural History Press, New York	1969	-
4	Natural Design-Organic Architecture	Alan Hess, Frank Lloyd Wright	Rizzoli	2012	-
5	Elements of Spacemaking	Yatin Pandya	Mapin Publishing, Ahmedabad	2007	-
6	Climate Responsive Architecture: A Design Handbook for Energy Efficient Buildings	Arvind Krishnan, Nick Baker, Simos Yannas, S. Szokolay	Tata McGraw Hill Education	2001	-
7	Manual of Tropical Housing & Building – Climatic Design	O.H. Koenigsberger & Others	Universities Press, London	1974	-
8	Energy Efficient Buildings in India	Mili Majumdar	Ministry of Non-Conventional Energy Sources & TERI, New Delhi	2009	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	In-depth understanding of climatic analysis and its application in design	15%
CO-2	Introduction to Surveying and leveling and understanding of land, terrain, contour analysis, land record documents, etc.	15%

CO-3	Analyse Vernacular architecture / region based architecture and its representation in form of drawings.	20%
CO-4	Identify local (regional) material, their properties and application in building design and construction.	35%
CO-5	Integrate regional (Local) Arts and Crafts of the region and application of the knowledge in creating a visually pleasing built environment.	15%

List of Open learning website:NA

List of Open Source Software:

a. LibreCAD
b. Sketchup
c. Climate consultant/sun calc

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	**Climate Analysis Exercise** Analyze climate data of your identified city and Create Temperature charts, Wind rose diagrams, Identify comfort strategies. Outcome: Climate-based design decisions
2	**Survey & Contour Mapping Exercise** Conduct a simple site survey, Draw Contour map, Site plan with levels and create understanding of contour by identification of valleys, ridges and mitigation of the same in design approach. Outcome: Understanding real terrain
3	**Vernacular Architecture Study** To understand how traditional Indian architecture responds to climate, materials, and local culture—and apply those principles in design. Suggested Examples: Kutch – Bhunga houses (circular, dust to heat & earthquakes) Rajasthan – Haveli & desert architecture (thick walls, courtyards) Kerala – sloped roofs, rain response, wood construction Ladakh – mud houses for cold desert climate Assam – stilt houses for flood-prone areas Other examples can also be taken as seen appropriate as per the project given.
4	**Design Case study**

	Study of projects done by Indian / Foreign Masters from design and climate response perspective, the idea is to introduce them to the design philosophy, design approach adapted, influence of regional architecture and how sensible designs are created.
5	**Design of a small building (preferably single use)** Include: Concept sketches, Climate analysis diagrams, Final drawings (plan, section, elevation, model) Outcome: Complete architectural drawing set with presentation and understanding of drawing a building with model.

Year: B. Arch II (Semester III)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**III**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BRAR21302	Course Name		Building Technology I – Construction & Services		
Course Type	**Major**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
4	4	-	4	25/50	25/50	100

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.
SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.
Prerequisite (if any): -As per semester progression rule of Sarvajanik University 'promotion eligibility.
List of Courses where this course will be prerequisite: -NA

Rationale: -This course introduces "Construction with concrete" as a versatile construction material and develops a comprehensive understanding of its multiple application in building design and construction. The emphasis is **"to learn to design with concrete"** by knowing its physical properties. Understanding of RCC grids, for various floor systems, along with its construction methods and technology. The course also focuses on understanding various aspects of plumbing and sanitation as basic service systems of the building.

Content:

Sr. No.	Description	No. of Hours
Unit I	**CONCRETE AS A BUILDING MATERIAL:** • Understanding Plain Cement Concrete (PCC) and Reinforced Cement Concrete (RCC), their composition, material grades, role of reinforcement in enhancing strength and durability, and their application. Introduction to various types of concrete such as cast-in-situ, precast, prestressed concrete, their structural behaviour. • Role and integration of key structural elements such as footings, columns, beams, slabs, and different floor systems in the overall structural assembly of a building. Understanding the construction process of a typical concrete frame structure, including an understanding of materials, methods, and the stages involved in concrete construction across all phases of a project, from concept to execution.	08

	• This includes pre-construction planning, on-site construction activities, and post-construction phases such as project closure, handover, and maintenance • Techniques for working with concrete, emphasizing the selection and properties of ingredients, mix preparation, transportation, placement, compaction, finishing, and curing processes, along with the installation, and removal of formwork and shuttering systems.	
Unit 2	**CONSTRUCTION WITH CONCRETE:** • Construction process of typical elements of a concrete frame structure i.e. footing, beams, columns, slabs, staircase, construction of specialized elements like arches, vaults, doms, role of formwork in concrete construction. • Introduction to different types of concrete floor construction by defining the floor as a structural member and explaining its systems, including key terminologies, components, functions, and characteristics. It covers various types of ground floors and upper floors, flat slab construction, waffle slab construction, folded plates construction, conceptualizing and detailing their construction methods and performance aspects. • Study of finishing techniques for concrete surfaces, including plastering, pointing, and cladding. Introduction to various flooring materials used over concrete floors, along with the application of concrete itself as a finished flooring material, focusing on its properties, performance, and aesthetic potential	18
Unit 3	**PRECAST CONCRETE:** • Introduction to precast concrete, its advantages and disadvantages, modularity of precast construction, use and application. Various types of precast concrete components and their connections and assembly.	06
Unit 4	**EXPLORATIONS WITH CONCRETE** • Explores the creative potential of concrete in design through case studies, emphasizing its versatility in shaping innovative architectural expressions. It introduces exposed concrete and monolithic construction, along with various types of walls and roof structures, highlighting both their structural performance and aesthetic possibilities.	08
Unit 5	**PLUMBING AND SANITATION DESIGN:**	24

	• Introduction to Plumbing and Sanitation
	  ○ General overview of plumbing and sanitation
	  ○ Water supply systems at different levels:
	• City-level: sourcing, treatment, storage, and distribution
	• Building-level: treatment, storage, and internal distribution
	• Rural-level: treatment, storage, and distribution.
	• Plumbing and Sanitation in Buildings
	• Types of building plumbing and drainage systems
	• Plumbing and drainage materials:
	  ○ Pipes and valves
	  ○ Accessories: traps, faucets, bends, sanitary wares
	• Preparation of Service Layouts
	  ○ Planning and layout of toilets and kitchens
	  ○ Service ducts, fittings, and fixtures
	  ○ Preparation of comprehensive service layouts for buildings
	  ○ Design of underground and overhead water storage systems (UG tanks and OHTs), including capacity calculation, placement, and integration with distribution systems
	• Water-Efficient Design
	  ○ Water conservation techniques in buildings
	  ○ Rainwater harvesting: principles and applications	

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	30%	30%	-	10%	20%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of Book/Article	Author(s)	Publisher and Details	Year of Publication	Publication Edition
1	Building Construction Illustrated	Frank (Francis D.K.) Ching	John Wiley & Sons, Inc., Hoboken, New Jersey	2014	-

2	Building Structures Illustrated: Patterns, Systems, and Design	Frank (Francis D.K.) Ching, Barry S. Onouye, Douglas Zuberburhler	John Wiley & Sons, Inc., Hoboken, New Jersey	2009	-
3	Fundamentals of Building Construction	Edward Allen	John Wiley and Sons Incorporation, New York	1999	-
4	Architecture of Building Services	Nelson Gordon	B.T. Batsford	1995	-
5	Elements of Public Health Engineering	K.N. Dugaal K.N.	S. Chand & Company, Delhi	1995	-
6	Handbook of Designing and Installation of Services in High Rise Building Complexes	V.K.Jain	Khanna Publishers	2000	

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand properties and types of concrete as building material and relate its use and application in building design	10%
CO -2	Understand different concrete components, such as footings, columns, beams, slabs, and floor systems, their types and casting methods and the integration of structural components for efficient and durable building assembly.	20%
CO-3	Understand concrete structural systems, including their structural behavior, construction methods, and application for various types of structures	20%
CO-4	Understand and explore the creative potential of concrete in design through case studies, including exposed and monolithic construction, for their structural performance and architectural expression.	10%
CO-5	Understand the fundamentals of plumbing and sanitation systems at city, building, and rural levels and to prepare them to evaluate water-efficient strategies, including rainwater harvesting, in building design.	40%

List of Open learning websites: Archdaily, Dezeen Daily, etc.

List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	**On site study:** Understanding process of constructing a typical concrete frame structure through real ground projects
2	**Literature Case Study:** A detailed case study of a project constructed with concrete as a material focusing on exploration of concrete for innovative Design. The case study should be detailed up on Understanding types of RCC systems. Role and techniques used in concrete construction along with its details and finishes.
3	**Drafting/ Sketching/ model preparation, for floor construction systems.** Students are required to prepare basic drafting/sketches/simple physical models illustrating details for the given design exercise.
4	**Market Survey:** study of various finishing and flooring materials specifically for concrete surfaces and their suitability for different application.
5	Students are required to prepare a detailed plumbing and sanitation layout for a **2BHK residential unit.** Students are required to prepare toilet and kitchen layouts showing all fixtures, design water supply (hot and cold) and drainage systems with proper slopes, indicate locations of traps, inspection chambers, and manholes, and provide a schematic (isometric/diagrammatic) representation of the system.
6	Students are required to design a **water storage and rainwater harvesting system** for a small residential building. Students are required to calculate daily water demand, design the capacity and location of underground and overhead tanks, prepare a schematic of the water supply system, and develop a basic rainwater harvesting system including catchment, filtration, and storage/recharge.

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester III)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**III**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	**BRAR22303**	Course Name		**Structure III**		
Course Type	**Minor**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite: - As per semester progression rule of Sarvajanik University/promotion eligibility.

List of Courses where this course will be prerequisite: -NA

Rationale: This course introduces the fundamentals of Reinforced Cement Concrete (RCC) design as per relevant IS codes, including material properties , different grades and loading standards. It develops an understanding of RCC behaviour and design methods, covering structural members such as beams, slabs, columns, and footings, including reinforcement. Students learn basic RCC design through practical approaches and gain exposure to RCC grid systems for effective application in design studio work.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**CONCRETE: A Versatile Building Material** • Structural properties of concrete, Characteristic strength of concrete, Factors affecting strength of concrete, mainly water- cement ratio, Curing & its importance, IS code for concrete, tests for concrete, Casting of concrete, Grades of concrete mix as per Indian Standard Code, • RCC: Introduction to RCC, Role of reinforcement and Materials used for it. Types of steel reinforcements, Characteristic strength, Cover etc.	3
Unit 2	**RCC Design Philosophies & methods** • Design Philosophies for Reinforced Concrete - Working Stress Method, Ultimate Load Method, Limit State Method. • Limit state design of RC elements: Limit state of collapse & serviceability, Partial safety factors for material & loading.	6

	• Stress-strain characteristics of concrete & reinforcing steel, Type of section-under reinforced, over reinforced & balance section, Neutral Axis depth, Moment of Resistance for singly reinforced, doubly reinforced sections. Introduction to Bond & Anchorage, Development length, splices etc.	
Unit 3	**RCC Design for Flexural Member:** • Design of Beams: Simply supported, and cantilever beams including Design of Shear reinforcement • Design of Slabs: One-way, two-ways simply supported.	13
Unit 4	**RCC Design of Axial Compression Member and Isolated Sloped footing.** • Design of Columns: Classifications, Assumptions, Design of Short Columns under axial load. • Design of Foundations: Design of isolated sloped footing under axial load, Introduction to combined & raft footing.	10

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
12.5%	22 %	NA	37.5 %	NA	28%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of Book / Article	Author(s)	Publisher and Details (ISBN if available)	Year of Publication	Publication Edition
1	Limit State Design of Reinforced Concrete	B.C. Punmia, Ashok Jain & Arun Jain	Laxmi ISBN- 10 .ISBN-13	1/1/2026	-
2	RC Limit state Design	A.K. Jain	Nemchand & Brothers , Roorkee ISBN- 10. ISBN-13	1/1/2012	-
3	Reinforced Concrete Design	Pillai & Menon	Mcgrawhill ISBN-10.ISBN-13	29/10/2021	4th

4	Design of Reinforced Concrete Structures	N. Subramanian	Oxford University press , New Delhi ISBN-9780198086949	26/12/2013	-
5	Design of Reinforced Concrete Structures	S. Ramamrutham	Dhanpatrai Publishing Company Pvt. Ltd. ISBN-10, ISBN-13	1/1/2013	7th
6	Reinforced Concrete (Vol 1 & 2)	H.J. Shah	Charotar Publishing House Pvt. Ltd. Volume -1 ISBN -9789385039478 Volume -2 ISBN-9789385039485	31/5/2021	12th
	Important IS Codes				
1	IS 456:2000	Main RCC design IS code	BIS - Bureau Of Indian standard	Refer to Latest revision of IS code	-
2	IS 875 part-I,II,III	IS Codes for dead load, live load and wind load	BIS - Bureau Of Indian standard	Refer to Latest revision of IS code	-
3	IS 13920	IS code of Ductile detailing	BIS - Bureau Of Indian standard	Refer to Latest revision of IS code	-
4	SP-34 and SP-16	Reinforcement detailing and Design aids	BIS - Bureau Of Indian standard	Refer to Latest revision of IS code	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	• Students will be able to understand the basics of concrete properties, tests, grades, and reinforcement basics. • apply RCC design principles to calculate the moment of resistance of flexural members using the Limit State Method as per IS codes.	34.25 %

CO-2	Students will be able to analyse & design, steel detailing of flexural members (including shear) as per relevant IS codes for simply supported and cantilever beams, and one-way and two-way slabs.	34.5%
CO-3	Students will be able to understand and design RCC short columns under axial load and isolated footings (including cross-section sizing and reinforcement detailing) as per IS 456. They will also understand the behaviour of combined and raft footings.	31.25%

List of Open learning website: NA

List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	• Study of factors affecting strength of concrete- w/c ratio, materials, admixtures, curing, compaction etc. Study of tests of concrete & properties of concrete. • Calculation of Moment of Resistance for flexural section – under reinforced, over reinforced etc.
2	Design of Beam: For a given building plan, calculate loads on beams and design the beam for flexure and shear as per IS codes , including reinforcement detailing and drawing of design details.
3	Design of Slab: For a given building plan, identify one-way and two-way slabs, calculate loads, and design the slab for flexure as per IS codes, including steel detailing and cross-sectional drawings.
4	Design of Column: For given data, design a short axially loaded column as per IS codes, including cross-sectional dimensions and longitudinal & lateral reinforcement detailing.
5	Design of Isolated Sloped Footing: For given data, design an isolated sloped footing, including cross-section, size, and reinforcement detailing as per IS code. Prepare detailed drawings.
6	For the design studio project, develop a structural grid system, including slab, beam, and column layout based on the architectural plan. (This exercise will be considered as part of the Design Studio.)

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester III)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**III**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	**BRAR 22304**		Course Name	**History & Theory of Architecture I**		
Course Type	**Minor**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%. it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite: -As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: -NA

Rationale: The course aims to develop a comprehensive understanding of the evolution of architecture in the ancient world through an interdisciplinary lens. It emphasizes the relationship between architecture and its cultural, social, political, environmental, and technological contexts. Moving beyond a strictly chronological approach, the course adopts a thematic framework to examine key civilizations including Buddhist India, China, Greece, and Rome.

Students are introduced to methods of architectural analysis focusing on form, function, spatial hierarchy, construction systems, and symbolism. The course also integrates theoretical perspectives related to aesthetics, light, silence, and monumentality. This approach equips learners with critical thinking skills necessary to interpret historical architecture and relate it to contemporary design understanding.

Content:

Sr. No.	Description	No. of Hours
Unit 1	Introduction to material and non-material culture including political systems, religion, geography, climate, and socio-economic structures. Methods of architectural analysis: form, function, spatial hierarchy, typology, materials, and construction systems.	2

Unit 2	Inception and dispersal of Buddhism. Early Buddhist architecture in India included stupas, viharas, and chaityas. Study of cave and rock-cut architecture (Ajanta, Ellora, Karla).	6
Unit 3	Characteristics of Chinese architecture Study of architectural types such as temples, palaces, houses, and cities. Concepts of modularity, timber construction, symmetry, and cosmological planning principles.	6
Unit 4	Survey of development of Greek architecture and its socio-political context. Study of orders (Doric, Ionic, Corinthian), temple architecture, and public spaces such as agora and theatre. Emphasis on proportion, harmony, and visual perception.	8
Unit 5	Survey of Roman architecture and engineering achievements. Building types including amphitheatres, basilicas, baths, and infrastructure such as aqueducts. Urban planning and civic systems.	8
Unit 6	Theoretical aspects of architecture through the works of Louis Kahn, focusing on concepts of light, silence, monumentality, and structural expression. Interpretation of historical architecture through experiential and philosophical lenses.	2

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
20%	20%	5%	20%	15%	20%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of Book / Article	Author(s)	Publisher and Details (ISBN if available)	Year of Publication	Publication Edition
1	World Architecture: An Illustrated History	Copplestone, T. & Lloyd, S.	Verona Printed, London	1971	-

2	History of Architecture: Stonehenge to Skyscrapers	Crouch, Dora P.	McGraw Hill, London	1985	-
3	A World History of Architecture	Fazio, Michael; Moffet, Marian	Laurence King Publishing, London	2008	-
4	Cities of Vesuvius	Grant, Michael	Penguin, Harmondsworth	1976	-
5	Greek Architecture	Lawrence, Arnold Walter	Yale University Press, New Haven CT	1996	-
6	Ancient Greece: From Prehistoric to Hellenistic Times	Martin, Thomas	Yale University Press, New Haven CT	2013	2nd Edition
7	A History of Western Architecture	Watkin, David	Laurence King Publishing, London	2005	4th Edition

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand the historical and socio-cultural context of architectural developments	20%
CO-2	Analyze architectural forms, spatial organization, and typologies	20%
CO-3	Interpret the influence of cultural, environmental, and political factors on architecture	20%
CO-4	Represent architectural examples through drawings and models	20%
CO-5	Evaluate architectural works using theoretical and experiential frameworks	20%

List of Open learning website:

- MIT Open Courseware
- Coursera
- Archdaily - For Project Case studies

List of Open Source Software:

- Sketchup

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Presentation on assigned monument/civilization focusing on context, form, and spatial hierarchy
2	Analytical drawings (plans, sections, elevations, and diagrammatic analysis)
3	Comparative study between two architectural traditions or typologies
4	Physical model of a selected monument emphasizing structure or spatial experience
5	Short theoretical write-up linking historical examples with concepts like light, silence, and monumentality

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Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester III)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	1.0	
Semester	**III**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BFGN13301	Course Name		**Liberal Studies & Life Skills III (Psychomotor Skills)**		
Course Type	**Multidisciplinary/Interdisciplinary**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): -As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: -NA

Rationale: - This course focuses on developing essential survival and self-help skills through hands-on and demonstration-based learning. It includes practical exposure to areas such as water safety (swimming/sailing), fire safety and basic firefighting, first aid including CPR and basic nursing care, simple maintenance and repairing, and life-saving techniques during trekking or outdoor situations, depending on available facilities and expertise. The course emphasizes physical coordination, situational awareness, risk assessment, and the ability to respond calmly and effectively in emergencies, while promoting personal safety, teamwork, responsible behaviour, and practical problem-solving skills for real-life situations.

This domain based structure is intended to encourage cross disciplinary engagement, and thematic continuity beyond core disciplinary boundaries.

The topics under Liberal Studies & Life Skills III are subject to change under the availability of resource persons.However the domain for this course will remain 'Psychomotor Skills'.

Following is the list of tentative modules.

Liberal Studies & Life Skills III (Psychomotor Skill)

- Survival Skills - Self Help Skills
  (Swimming /Sailing / Firefighting / Health - CPR - Nursing / Maintenance & Repairing / Life saving during trekking)
  Additional potential topics can be offered time to time

Description of course

This Liberal Studies & Life Skills module develops basic survival and self-help skills through hands-on practice and demonstration-based learning, building students' physical coordination, situational awareness, and confidence in managing emergencies. Depending on institutional facilities/availability of resource person / expert, the course may cover selected modules such as swimming or sailing for water safety, fire safety and basic fire-fighting, health-related first aid including CPR and simple nursing care, basic maintenance and repairing of everyday tools and equipment, and life-saving practices during trekking or outdoor activities. Students learn how to assess risk, respond calmly, and execute simple procedures correctly, with emphasis on personal safety, safe use of equipment, teamwork, and following instructions. The course aims to cultivate responsible attitudes towards one's own well-being and that of others, while reinforcing the value of preparedness and practical problem solving in real-life situations.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	Survival Basics & Risk Awareness	4
Unit 2	First Aid, CPR & Basic Care	4
Unit 3	Basic tools, simple repairs, safe handling	12
Unit 4	Emergency handling, teamwork	12

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	20%	40%	15%	15%	-

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	*The respective course faculty will determine and recommend reference materials according to the specific requirements of the course content.*				

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to perform selected survival and self-help tasks safely and competently, demonstrating appropriate use of tools, equipment, and body coordination in simulated real-life situations.	50%
CO 2	Students will be able to apply basic safety protocols and emergency response procedures in individual and group contexts, showing responsibility for personal and others' well-being during routine activities and unexpected events.	50%

List of Open learning website: NA
List of Open Source Software: NA
List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	*The respective course faculty will determine the exercises/assignments based on the topics offered and will convey the same to the students.*

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title. Mention will be made of the domain acquired after completion of the course in the semester end results issued by the Sarvajanik University.
- Evaluation of Liberal Studies and Life Skills shall be developmental and formative in nature, aligned with the objectives of the component.
  Assessment methods may include:
  - Participation and engagement
  - Reflective journals or submissions
  - Group activities and exercises
  - Demonstrated competencies or behaviours

  Quantitative grading shall be used only where appropriate and approved. Emphasis shall be placed on meaningful feedback rather than comparative ranking.
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding Liberal Studies & Life Skills, will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / MS IDPT I & R meetings/ACC meetings
- For further details, refer Standard Operating Manual(SOM) for Special Academic Components prepared for the programmes of MS-IDPT

Year: B. Arch II (Semester III)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	II			Version	2.0	
Semester	III			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BRAR24305	Course Name		Building Information Modelling -I		
Course Type	Ability Enhancement Course (AEC)					
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude:solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course, In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%. it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): -As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: -NA

Rationale: - The course focuses on "3D Modelling and Building Information Modelling" which enables students to represent ideas in third dimension and study Building Simulation.

This course introduces students to the fundamental techniques of creating 3D models with all relevant technical data. The course also enables students to analyse technical data, understand estimation, energy consumption, wind analysis, etc. The course develops appropriate computer aided skills for visualization and technical representation of built forms in different types of drawings.

Content:

Sr. No.	Description	No. of Hours
Unit I	**Exploring Software** • Understanding applicability of software • Learning tools and its application • Learn to analyse site features like topography, generate topographical site model, etc	6

Unit 2	**Building modelling** • Learning to create floor plans with all required technical inputs like material, structural system, and all building elements • Understand volumetric explorations, massing considering architectural design.	10
Unit 3	**Technical Output** • Learn to extract technical data like estimation, material quantity, construction phases, etc. • Learn to generate working drawings • Learn to set sheets, panels in different scales	6
Unit 4	**Rendering** • Learn to set views • Learn to render animation	4
Unit 5	**Building Simulation** • Introduction various building simulations like Performing Energy Analysis, Analytical Assessment of Building envelope and other building elements.	6

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	20%	20%	10%	10%	30%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Mastering Autodesk Revit	Lance Kirby, Eddy Krygiel, Marcus Kim	Wiley, New York	2017	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Visualise and explore architecture in volume, built mass, materiality simultaneously.	30%

CO-2	Understand the life cycle of a building/project from planning, design, construction to operations.	30%
CO-3	Generate technical drawings – Working drawings.	40%

List of Open learning website:

- Autodesk Learning Platform – https://learn.autodesk.com
  Official Autodesk tutorials, certification pathways, and learning resources for software like Revit, AutoCAD, and other BIM tools.
- YouTube Educational Channels (Balkan Architect, Revit Pure, TheRevitKid)
  Practical demonstrations of modelling techniques, rendering workflows, and BIM coordination.

List of Open Source Software:

- FreeCAD: Parametric 3D modelling software suitable for engineering and architectural design exploration.
- SketchUp Free (Web Version): Cloud-based modelling platform useful for conceptual massing and spatial studies.

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	• Create G+1 Model (G+1 Minimum and You can create High-rise also) Requirement • Use all Command Like (Levels, Wall, Wall Opening, Curtain wall, Door, Window, Floor, Slab, Roof, Stairs.. etc.) • Compound wall • Model should be create proportion
2	• Import CAD plan of your studio model. • Create wall, floor, roof, openings, staircase and all learned objects. • Elevation designs use components.
3	• Model parametric building • Add floor, wall, curtain wall, roof etc

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Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester III)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	1.0	
Semester	**III**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BFEL15301	Course Name		Professional Elective 3A **(Art Theory and Practices I)**		
Course Type	**Skill Enhancement (Elective) Course (SEC)**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: -

This course focuses on developing practical and creative skills through hands-on, studio-based learning. While elective topics may vary, the core aim is to strengthen students' ability to translate ideas into tangible outcomes using diverse materials, techniques, and processes.

Through varied electives, students engage in making, experimentation, and visual analysis, enhancing skills in form-making, material handling, storytelling, and design articulation. The domain bridges conceptual thinking with execution, supporting applications in architecture, interior design, and visual arts. Overall, it aims to build adaptable, skilled, and reflective practitioners through experiential learning.

For all electives offered under the domain *Professional Elective 3A (Skill Enhancement)*, the above prescribed course code and course title shall remain common.

If the suggested elective course content overlaps with the core course of any bachelor programme, the expert/resource person shall design exercises or tasks that emphasize complementary and distinct aspects beyond those covered in the core course syllabus.

The topics under professional electives are subject to change depending on the availability of resource persons.However the domain for this elective will remain 'Skill Enhancement'.

Following is the list of tentative electives.

Professional Elective 3A (Skill Enhancement)

- **Assemblage Art**
- **History of Civilisation/Art/Style**
- **Relief Printing**
- **Basics of Animation**
- **Paper Sculpture**

Description of course

Assemblage Art

This elective introduces students to assemblage as a creative process of composing three dimensional works from found objects, discarded materials, and everyday artefacts, encouraging them to see design potential in the ordinary. Through studio based explorations, learners experiment with material juxtaposition, scale, texture, and narrative to construct conceptual and spatial compositions relevant to interiors, architecture, and visual art. The course emphasizes hands-on making, quick prototyping, and critical reflection so that students develop confidence in translating abstract ideas into tangible form. By the end of the semester, students will have produced a series of small and medium scale assemblages that demonstrate sensitivity to composition, context, and meaning in built and visual environments.

History of Civilisation / Art / Style

This elective offers an overview of key civilisations and their artistic and stylistic expressions, tracing how social, cultural, technological, and spiritual forces have shaped visual and spatial forms over time. Students engage with selected case studies from ancient to modern periods, examining architecture, interiors, visual arts, and design objects as interconnected cultural artefacts rather than isolated works. Classroom discussions and visual analyses train students to identify major styles, motifs, and compositional principles, and to relate them to contemporary design practice. The course builds a foundational visual vocabulary and historical awareness that enriches creative decision making in architecture, interior design, and visual arts.

Relief Printing

This elective introduces the fundamentals of relief printing as a process based art and design technique, focusing on carving, inking, and printing from raised surfaces such as linoleum, wood, or experimental materials. Students learn to translate their drawings and design ideas into graphic prints, exploring positive negative relationships, repetition, pattern, and texture for application in spatial graphics, surface design, and visual communication. Through iterative exercises and small projects, they develop control over tools and materials, understand registration and editioning, and experiment with colour layering. The course strengthens hand skills, visualisation, and patience, while demonstrating how a traditional craft process can inform contemporary architectural, interior, and visual art practices.

Basics of Animation

This elective familiarizes students with the fundamental principles of animation, including timing, spacing, squash and stretch, anticipation, and basic storytelling through moving images. Using simple analog and digital tools, learners create short sequences that explore motion, transformation, and narrative in relation to characters, objects, and spaces. The focus is on visual thinking, storyboarding, and iterative experimentation rather than software mastery, allowing students from architecture, interior design, and visual arts to apply animation as a tool for communicating atmosphere, user experience, and conceptual ideas. By the end of the course, students will have produced brief animated clips that demonstrate control of movement, rhythm, and visual expression.

Paper Sculpture

This elective explores paper as a versatile medium for three dimensional thinking, structural experimentation, and rapid prototyping. Students engage with techniques such as folding, cutting, scoring, layering, and modular construction to create sculptural forms, surface systems, and small scale spatial models. The course emphasizes understanding of form structure, light and shadow, and transformation from 2D to 3D, encouraging applications ranging from conceptual art pieces to exploratory models for interiors and architectural components. Through a series of progressively complex exercises, students enhance their manual dexterity, material sensitivity, and ability to communicate ideas through physical models.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines...		
Unit 1	Concept Development / Ideation	6
Unit 2	Process Work / Exploration (Studio Work, Iterations, Experimentation)	10
Unit 3	Skill / Technique / Material Handling	6
Unit 4	Final Outcome / Product / Prototype / Presentation (Verbal / Visual / Documentation)	10

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
5%	15%	25%	15%	10%	30%

Legends: R: Remembrance, U: Understanding, A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the final evaluation may vary slightly from the above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
Note:	*The respective course faculty will determine and recommend reference materials according to the specific requirements of the course content.*				

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will demonstrate enhanced hands-on skills and material or media proficiency by creating resolved works or prototypes that translate conceptual ideas into tangible outcomes appropriate to their disciplinary context.	50%
CO 2	Students will apply creative and critical thinking to explore, experiment, and refine visual or spatial compositions, articulating their processes and decisions through basic verbal, written, or visual presentations.	50%

Use the same CO 1 and CO 2 for all five electives; intensity levels can be adjusted if needed at programme level.

List of Exercises:

Sr. No.	Studio Exercises/Assignments for CCE
1	*Exercises/assignments may vary periodically as per availability of resource person / subject expert.*

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title with domain. No specification or mention will be made of the specific skill/ ability/ competence acquired after completion of the elective in the semester end results issued by the Sarvajanik University.
- Evaluation of Professional Electives shall be conducted by the designated faculty member or subject expert or the designated panel appointed as examiner by the Institute
- The evaluation framework may include, as appropriate:
    - Continuous assessment
    - Studio or workshop outputs
    - Reports, portfolios, or presentations
    - Applied projects or assignments
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding electives, will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings
- For further details, refer Standard Operating Manual(SOM) for Special Academic Components prepared for the programmes of MS-IDPT

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester III)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	B.Arch.	
Year	II			Version	1.0	
Semester	III			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BFEL16302		Course Name	Transdisciplinary Open Elective 3B (Financial Literacy)		
Course Type	Common Value Added (Elective) Course (VAC)			-		
Teaching Scheme				Examination Scheme		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course, In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: Transdisciplinary electives in design education are designed to integrate knowledge across multiple disciplines, recognising that contemporary design challenges are influenced by interconnected factors. The Financial Literacy domain introduces students to essential financial knowledge and practical skills required for managing personal finances and navigating early professional practice. It integrates core areas such as banking, accounting, taxation, and insurance to build a holistic understanding of how financial systems function in everyday life and within creative and design-based careers.

The domain enables students to understand banking operations, savings, loans, and digital transactions; develop basic accounting skills for managing income, expenses, and project budgets; gain awareness of taxation, compliance, and financial documentation; and recognize insurance as a tool for managing risk and ensuring financial security. Through contextual examples from architecture, interior design, and visual arts practices, students learn how financial decisions impact cash flow, project management, and long-term stability.

Overall, the domain aims to develop financially aware, responsible, and self-reliant learners who can make informed decisions, handle basic financial processes, and integrate financial thinking into their personal lives and emerging professional roles.
For all electives offered under the domain Transdisciplinary Open Elective 3B (Financial Literacy), the above prescribed course code and course title shall remain common.
If the suggested elective course content overlaps with the core course of any bachelor programme, the expert/resource person shall design exercises or tasks that emphasize complementary and distinct aspects beyond those covered in the core course syllabus.
The topics under Transdisciplinary Open Elective are subject to change depending on the availability of resource persons.However the domain for this elective will remain 'Financial Literacy'.

Following is the list of tentative electives.

Transdisciplinary Open Elective 3B (Financial Literacy)

- **Banking**
- **Basics of Accounting**
- **Basics of Taxation**
- **Insurance**

Description of course

Banking

This elective introduces the role of the banking system in everyday life and professional practice under the broad domain of financial literacy for design and art students. It covers types of bank accounts, deposits, loans, digital banking, interest, basic documentation, and the relationship between individuals, businesses, and banks. Students learn how to plan simple savings strategies, understand education and housing loans, and interpret basic bank statements and charges relevant to student and early career contexts. Short case examples from architectural practice, interior projects, and creative freelancing highlight how banking choices impact cash flow, payments, and financial security for learners.

Basics of Accounting

This elective introduces fundamental accounting concepts needed to understand and manage small scale finances within the financial literacy domain. Students learn ideas such as assets, liabilities, income, expenses, profit, loss, and simple bookkeeping using examples of freelance work, studio projects, and small design or art practices. The course familiarizes them with basic financial statements, cash books, invoices, and receipts, and demonstrates how to track project related costs and earnings. By the end, students will be better prepared to read simple accounts, make informed decisions about project budgets, and appreciate the financial dimension of professional practice.

Basics of Taxation

This elective familiarizes students with the essentials of personal and small business taxation as part of financial literacy for emerging professionals. It introduces the idea of taxable income, basic slabs, common deductions, and the importance of maintaining records for salary, freelance fees, and small project earnings. Students gain an overview of indirect taxes in everyday transactions, and the compliance responsibilities that may arise when they work as independent designers or artists, or start small firms. Practical discussions and simplified examples show learners how to read basic tax related documents, avoid common mistakes, and understand the link between taxation, public services, and ethical citizenship.

Insurance

This elective introduces insurance as a tool for managing risk within the framework of financial literacy that is relevant to personal life and professional practice. It explains basic principles of risk. premium, coverage, and claim, and provides an overview of health, life. vehicle, property, and professional liability insurance. Through relatable scenarios, students examine how unexpected events can impact individuals, project sites, studios, or offices, and how appropriate insurance choices can reduce financial stress. The course helps students begin to plan for future security, understand policy documents at a basic level, and appreciate risk management as part of responsible professional practice.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	Basics of Financial Systems	8
Unit 2	Important financial Documents & Instruments, Transactions & Records	8
Unit 3	Financial Planning & Application	8
Unit 4	Financial Risk & Responsibility	8

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	U Level	A Level	N Level	E Level	C Level
15%	25%	25%	15%	10%	10%

Legends: R: Remembrance, U: Understanding, A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the final evaluation may vary slightly from the above table as per the elective opted by the student.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1.	*Note: The respective course faculty/instructor/expert will determine and recommend reference materials according to the specific requirements of the course content.*				

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to explain key concepts of financial literacy such as saving, budgeting, risk, and basic compliance, and relate them to their personal lives and future professional roles in design and visual arts.	50%
CO 2	Students will be able to apply fundamental financial literacy principles to simple scenarios involving personal finance or small design and art projects, making basic decisions about banking, accounting, taxation, or insurance.	50%

Use the same CO 1 and CO 2 for all five electives: intensity levels can be adjusted if needed at programme level.

List of Exercises:

Sr. No.	Studio Exercises/Assignments for CCE
1.	*Note: The exercises of transdisciplinary electives may be subject to periodic revision based on the availability of elective options, institutional priorities, and the academic or professional expertise of the faculty offering the course.*

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title along with the domain. No specification or mention will be made of the specific skill/ ability/ competence acquired after completion of the elective in the semester end results issued by the Sarvajanik University.
- Evaluation of Transdisciplinary Open Electives shall be conducted by the designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- Evaluation may include reflective assignments, participation, projects, presentations, or other suitable assessment tools aligned with learning objectives.
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding electives will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings
- For further details, refer Standard Operating Manual(SOM) for Special Academic Components prepared for the programmes of MS-IDPT

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**IV**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BRAR21401	Course Name		Habitat Design Studio		
Course Type	**Major**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
10	-	10	10	63/125	63/125	250

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course, In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 63 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: - The emphasis is on learning architecture with an emphasis on social behaviour, culture, and the varying needs of institutionalising places for society at large. It aims to promote research and analysis of societal values and culture; along with understanding traditional and emerging typologies of house and housing along with creating an understanding from making choices for typology or evolving new ones. It focuses on exploration of the sensitive socio-cultural issues that need institutional and organisational solutions and study of traditional and contemporary settlements to understand the basis of formation of settlement and study various social and cultural systems prevalent in the community. It examines community and culture as an important aspect of habitat studies and introduction to the terms like typology, prototype and community spaces to understand various attributes of settlement patterns.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**DESIGNING A HOUSE** Part one shall address the following aspects: • Developing an overall understanding about designing an individual house. • To learn the process of developing design brief, site analysis, climate study, and space planning. • Understand the history of Modern Architecture, and seek inspiration from the master architects in their individual design.	80

	• Provide avenues and opportunities for the students to communicate their ideas through speech, writing and graphics. • Learning basics of Electrification and Lighting, and create opportunities for students to exhibit this learning • Basic understanding about the rules and laws governing design of the house	
Unit 2	**FROM HOUSE TO HOUSES** Part two shall address the following aspects. • Developing an overall understanding about designing a cluster of houses • (about 20-50 units). • To learn the process of developing design briefs, site analysis and climate study. • Understanding the fundamentals of Site Planning, Landscape, Open Space Network, Circulation Movement, Parking and Pedestrian-Automobile Segregation. • Learn about the two way relationship between the Dwelling Unit Design and layout Design. • Learning about good mass housing from Modern Architecture history, and applying those ideas/ principles into the design. • Provide avenues and opportunities for the students to communicate their ideas through speech, writing and graphics. • Basic understanding about the development control norms governing design of the house.	80

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	10%	20%	30%	0%	30%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of Book / Article	Author(s)	Publisher and Details (ISBN if available)	Year of Publication	Publication Edition
1	House Form & Culture	Amos Rapoport	Foundations of Cultural Geography Series	1969	-
2	Housing& Urbanisation	Charles Correa	Thames & Hudson, New York	1999	-
3	The Concept of Dwellings	Christian Norberg-Schulz	Rizzoli International Inc., New York	1993	-

4	Culture Architecture & Design	Amos Rapoport	Locke Science Publishing Co., Chicago	2005	-
5	Laurie Baker – Life Works & Writings	Gautam Bhatia	Penguin Books, India	1991	-
6	Shigeru Ban – Humanitarian Architecture	Claude Blunderlein & Others	Aspen Art Press / D.A.P., Los Angeles	1994	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Acquire an in-depth understanding of theories behind evolution of housing typology and their transformation.	10%
CO-2	Develop an understanding for the design of 'A House' as a basic module of architecture.	20%
CO-3	Develop skills for documentation and analysis of settlements and decoding its patterns.	30%
CO-4	To explore housing design as an act of dealing with multiple units as a result of a variety of issues including socio-culture, economics, community and regional siting.	40%

List of Open learning website:

- MIT Open Courseware
- Coursera
- Archdaily (For project case studies)

List of Open Source Software:

- Sketchup
- LibreCAD
- Blender or similar softwares for rendering and visualisation.

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	**Case Study of Modern House** Study works of architects like: Le Corbusier, Frank Lloyd Wright Tasks: Analyze plan, concept, materials, Identify design principles, Apply 1–2 ideas in your own design Outcome: Learning from master architects
2	**Individual House Design Exercise** Develop a design brief (family size, needs, budget)

	Perform: Site analysis, Climate study Design: Floor plans, Sections, Basic 3D model Outcome: Space planning + climate response
3	**Housing Cluster Planning Exercise** Design a layout for 20–50 houses Include: Roads & pedestrian paths, Open spaces, Parking areas Outcome: Site planning + circulation
4	**Open Space Design Exercise** Design of Cluster Open Space done by the student as a part of their design with an understanding of soft and hard landscape, outdoor furniture, lighting, etc. Outcome: Landscape Design

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**IV**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BRAR21402	Course Name		Building Technology II – Construction & Services		
Course Type	**Major**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
4	4	-	4	25/50	25/50	100

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course, In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite (if any): - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: This course introduces steel as a widely used and versatile construction material for various types of structures. It aims to develop a comprehensive understanding of steel's extensive potential and its diverse applications in building design and construction. The course emphasizes "learning to design with steel" by understanding its physical and structural properties, along with its advantages and limitations. It also covers fabrication processes, mass production techniques, and common types of steel components, their assembly and connection details for building facades, floors, and roof systems. Further, the course explores both conventional and specialized steel structural systems for temporary as well as permanent structures, and the technologies used in steel construction.

In addition to steel construction, the course highlights electrification as a crucial building service system, enabling students to understand its integration and role in the overall functionality and performance of buildings.

Content:

Sr. No.	Description	No. of Hours

Unit 1	**STEEL: A POPULAR AND VERSATILE BUILDING MATERIAL** • Introduction to steel as a structural building material, properties of steel, various types and grades of steel • Introduction to steel frame construction systems: manufacturing of steel components, prefabrication and mass production , types of steel sections, use and application in building construction, on site assembly, integration and connection methods, execution and construction technologies • Versatility of steel construction, advantages & disadvantages of steel construction, potential of reuse and recycle-sustainability aspects.	4
Unit 2	**CONSTRUCTION WITH STEEL** • Building components in steel: steel wall systems, steel floor systems, steel roof systems, building façade construction in steel frame system, technical details of combining steel and glass/steel and composite panels for envelope systems (curtain wall system, wind braced support systems, spider steel connections with structural glass, simple and complex cable systems), its connection types (bolted, welded and cast connections) • Integration of services in steel frame construction, insulation and cladding systems. • Various finishes and coating of steel, need for corrosion and fire protection. • Steel system as prefab-modular construction, container structures, design details in steel.	20
Unit 3	**SPECIALIZED STRUCTURAL SYSTEMS IN STEEL** a. Specialized Steel Systems and details: • Steel Truss Systems (types steel trusses- simple and complex, typical components of truss systems, ways of fixing and connections). • Space Frame Systems (single, double & triple layered tubular space frames with globe connections). • Diagrid structures • Steel Structures for industrial buildings, warehouse and other building typologies. • Curved Steel Structures • Tensile structures b. Transformations of architectural design through steel structures	12

Unit 4	**ELECTRIFICATION** • Introduction to Electrical Services: Overview of electrification as an essential building service in architectural design. Understanding basic components and accessories such as wires, cables, switches, distribution boards (DBs), miniature circuit breakers (MCBs), and commonly used materials. • Electrical Layout: Preparation of electrical layouts, including design parameters and planning considerations. Execution techniques, installation systems, and materials used. Importance and planning of service ducts and electrical rooms in buildings. • Lighting Design: Fundamentals of natural and artificial lighting in architecture. Importance of lighting in spatial design. Types of lighting fixtures and lighting systems. • Sustainability Parameters: Principles of energy-efficient lighting. Introduction to building automation systems. Overview of electrical energy generation methods and sustainable practices in buildings.	28

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	30%	30%	10%	10%	10%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of Book / Article	Author(s)	Publisher and Details (ISBN if available)	Year of Publication	Publication Edition
1	Building Construction Illustrated	Ching, Frank (Francis D.K.)	John Wiley & Sons, Inc., Hoboken, New Jersey	2014	-
2	Building Structures Illustrated: Patterns, Systems, and Design	Ching, Frank (Francis D.K.), Barry S. Onouye, Douglas Zuberbuhler	John Wiley & Sons, Inc., Hoboken, New Jersey	2009	-
3	Steel Construction Manual	Schultz, Helmut C.	Birkhäuser	2000	-
4	Steel and Beyond: New Strategies for Metals in Architecture	Lecuyer, Annette	Birkhäuser Verlag AG	2003	-

5	Building Services Handbook	Hall. Fred	Elsevier	2009	-
6	Electrical Wiring. Estimating and Costing	Uppal. S.L.	Khanna Publishers. New Delhi	1996	-
7	Design of Electrical Services for Buildings	Barrie Rigby	Routledge	30 July 2005	4th edition

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand properties of steel as a building construction material, its uses and applications in building design	10%
CO-2	Learn the technology and methodology for steel frame construction	20%
CO-3	Explore the potential of steel for designing conventional and specialized structures	40%
CO-4	Understand basic electrification principles and components and prepare and interpret electrical layouts.	20%
CO-5	Apply and integrate the knowledge gained through this course in design studio projects	10%

List of Open learning website: NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	City exploration- identification and observations for steel structures in surroundings (visual documentation)
2	Case Study of various types of Steel Structures (understanding and analysis)
3	Design with steel-independent design exercise or case study based design exercise or integration with Design Studio Project(application)
4	Study and documentation of electrical components.
5	Electrical layout drawing for a residential unit and Lighting design for a given space.
6	Case study of building electrical systems and Proposal for energy-efficient and renewable energy integration

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**IV**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BRAR22403	Course Name		**Structure IV**		
Course Type	**Minor**			-		
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: This course introduces the fundamental concepts of structural steel design as per relevant Indian Standard (IS) codes, primarily IS 800:2007. It covers the properties of structural steel, types of steel sections, and design philosophies based on the Limit State Method. The course focuses on the analysis and design of steel structural members, including tension members, compression members, beams, columns, and footings. It also covers the design of various types of connections required in steel structures. Students will gain an understanding of load transfer mechanisms, structural behaviour, and failure modes in steel structures.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Understanding of Steel as a Design material:** • Properties of steel: Introduction to steel as a structural building material, properties of steel, strength of steel, grades of steel, relevant IS Codes for specifications of structural steel • Philosophy of Limit state design: Limit state of collapse & serviceability, partial safety factor for material and loading, Type & behavior of sections – Plastic, compact, semi-compact, slender.	2
Unit 2	**Design of Simple Roof Truss:** • Introduction to roof truss systems and their applications	6

	• Components of a roof truss, including purlins, cleats, top chord, bottom chord, web members, and joints • Determination of loads acting on a roof truss: o Dead Load (DL): Self-weight of the truss, roofing material, purlins, and accessories o Live Load (LL): As per IS 875 Part 2 o Wind Load (WL): Calculation as per IS 875 Part 3.	
Unit 3	**Member subjected to axial Tensile load: as per IS 800:2007** • Tension member: types of members, behavior, modes of failure. • Load carrying capacity of tension member.	6
Unit 4	**Members Subjected to Axial Compression (as per IS 800:2007)** • Types of compression members: struts and columns, their behaviour under axial load, and classification of cross-sections as per IS code. • Possible modes of failure of compression members, elastic buckling of slender members, and determination of load carrying capacity. • Brief introduction to lacing and battening systems.	8
Unit 5	**Members Subjected to Transverse Loads:** • Types of beam sections and classification of sections as per relevant IS codes. Load Carrying Capacity of laterally restrained beams simply supported beams. ,Deflection criteria and serviceability checks etc.	5
Unit 6	**Design of Steel Footings:** • Introduction to steel footings: Types of base connections, including slab base and gusseted base footings • Design of slab base footing: Determination of base plate size and Design of concrete block (pedestal) • Gusseted base footing: Understanding of behaviour and load transfer mechanism including detailing of gusseted base connections	3
Unit 7	**Introduction to Connections** • Seated and Framed Connections: • Beam-to-beam connections • Beam-to-column connections • Footing Slab - base & Gusseted based footing	2

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	25%	NA	50%	NA	15 %

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Limit State Design of Steel Structures	S.K.Duggal	Tata Mcgrowhill ISBN- 10 9353164877	23/5/2019	3rd
2	Design of Steel Structures	B.C. Punamia , A.K. Jain , Arun kumar jain	Laxmi publication ISBN -10 813806456	1/1/2015	-
3	Design of Steel Structures	K.S. Sai Ram	Pearson education ISBN - 10 9353945216	15/8/2020	3rd
4	Design of Steel Structures (Vol 1 & 2)	Ram chandra	Standard Book house	1/1/2016	vol -1, 18th Vol -2 ,19th
5	Design of Steel Structures (Limit State Method as per IS 800:2007	S.S. Bhavikatti	I K International Publishing house ISBN - 13 9789385909559	2017	5th
6	Design of Steel Structures	N. Subramnian	oxford University press ISBN -10 9780199460915	1/1/2018	-
	Important IS Codes				
1	IS 800:2007	Main steel design code	BIS - Bureau of Indian standard	As per latest IS code	
2	IS 875 part-I,II,III	IS Codes for dead load, live load and wind load	BIS - Bureau of Indian standard	As per latest IS code	
3	Steel Table or SP-6	Steel tables	BIS - Bureau of Indian standard	As per latest IS code	

Course Outcomes:

Sr. No.	CO statement	Marks % weightage

CO-1	Students will be able to understand the properties of steel as a construction material, relevant IS codes, various steel sections, and the use of steel tables. They will also comprehend the design philosophy and behaviour of steel sections, including plastic, compact, semi-compact, and slender sections.	31.25 %
CO-2	Students will be able to analyse and design compression members subjected to axial load, including classification of sections, behaviour, modes of failure, and calculate load carrying capacity of single sections as per relevant IS codes.	
CO-3	Students will be able to understand different types and applications of trusses, determine dead, live, and wind loads with load combinations, analyze load transfer mechanisms, and design truss members as per relevant IS codes.	15.75%
CO-4	To understand failure mode of tension member & to design Tension member, as per IS code Students will be able to understand the failure modes of tension members and calculate load carrying capacity of tension members as per relevant IS codes.	18.75%
CO-5	Students will be able to analyse laterally restrained beams for shear, deflection, and web buckling, considering failure modes and section types, as per relevant IS codes.	18.75%
CO-6	Students will be able to understand and design slab base footings, and analyse the behaviour and load transfer of gusseted base footings. Students will be able to understand various steel connections with drawings, including beam-to-beam, beam-to-column, and different-footings.	15.5%

List of Open learning website: NA
List of Open Source Software: NA

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	a. To understand steel tables, relevant IS codes, and design philosophy. b. For given data, design a column (single sections) subjected to axial load as per relevant IS codes using steel tables.
2	For given plan dimensions and location, design a roof truss considering span and height. Calculate dead load, live load, wind load, and load combinations as per IS codes.
3	For given data, calculate the load-carrying capacity of a tension member as per relevant IS codes using a steel table.
4	Calculate the load carrying capacity of laterally restrained beam as per IS code using steel tables.

5	Design a slab base footing as per IS code for given data. Also, explain and draw plan and section for: • Gusseted base footing • Beam-to-beam connection (framed & Seated) • Beam-to-column connections (Framed, stiffened and unstiffened) • Column-to-footing connections
6	Design Studio Exercise : For the design studio project, develop the structural system using slab–beam grid layouts for various floor plans, including location and size of columns. *(This exercise will be considered as part of the Design Studio.)*

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**IV**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BRAR22404	Course Name		History & Theory of Architecture II		
Course Type	**Minor**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: -The course focuses on understanding the development of architectural form as a complex and evolving dialogue between the needs of a given period and the influences of past traditions, stylistic trajectories, technological advancements, climatic conditions, and cultural aspirations. A central concern of the course is the role of religion as a primary determinant in shaping architectural expression, particularly within the contexts of Europe and India. It introduces learners to a comprehensive interdisciplinary methodology for analyzing historical architecture, encompassing both material culture (form, structure, materials, construction techniques) and non-material culture (political narratives, geography, climate, social structures, religious ideologies, and philosophical thought).

Content:

Sr. No.	Description	No. of Hours
Unit 1	Overview of political, economic, social, and cultural conditions of the medieval period in Europe. Introduction to Christianity as a dominant socio-cultural force shaping institutions, visual arts, and built environments. Understanding material and non-material determinants of architecture.	2
Unit 2	Early Christian and Byzantine architecture: evolution, characteristics, planning principles, and symbolism. Study of church layouts, basilican forms, centralized plans, domes, and structural systems.	7

Unit 3	Romanesque and Gothic architecture: development, stylistic features, structural innovations (arches, vaults, flying buttresses), and spatial experience. Study of cathedrals and their urban significance.	7
Unit 4	Inception and development of Hindu temple architecture in India. Study of planning principles including mandala, axiality, and spatial hierarchy. Symbolism and cosmological basis of temple design.	7
Unit 5	Development of regional styles of Hindu temple architecture: Nagara, Dravida, and Vesara. Study of variations in form, elevation, ornamentation, and construction techniques across regions.	9

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
20%	20%	5%	20%	15%	20%

Legends: R: Remembrance, U: Understanding: A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of Book / Article	Author(s)	Publisher and Details (ISBN if available)	Year of Publication	Publication Edition
1	Indian Architecture: Buddhist and Hindu Period	Brown. Percy	DB Taraporevala & Sons	2010	-
2	A Global History of Architecture	Ching, Francis	John Wiley & Sons, New Jersey	Originally 1943 (likely updated edition used)	-
3	Early Christian and Byzantine Architecture	Richard Krautheimer	Yale University Press	2002	-
4	A History of Architecture	Fletcher, Sir Banister; Ed. by Cruikshank, D.	CBS Publishers, New Delhi	2012	-
5	Buddhist and Hindu Architecture in India	Grover, Satish	CBS Publishers, New Delhi	2003	-

6	The Hindu Temple	Kramrisch, Stella	Motilal Banarsidass Publishers, New Delhi	1976	-
7	Complete History of the World	Overy, Richard	HarperCollins Publishers, London	2009	-

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand socio-cultural and religious determinants of medieval architecture	20
CO-2	Analyze architectural forms, spatial organization, and structural systems	20
CO-3	Interpret the evolution of styles across European and Indian traditions	20
CO-4	Represent architectural examples through drawings and models	20
CO-5	Evaluate architectural works within their cultural and contextual frameworks	20

List of Open learning website:

List of Open Source Software:

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Presentation on assigned medieval European or Hindu temple example
2	Analytical drawings (plans, sections, elevations, diagrams) of selected buildings
3	Comparative analysis between two architectural styles or regions
4	Physical model focusing on structure, form, or spatial hierarchy

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Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	1.0	
Semester	**IV**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BFGN13401	Course Name		**Liberal Studies & Life Skills IV (Cognitive Skill)**		
Course Type	**Multidisciplinary/Interdisciplinary**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	2	-	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course, In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%. it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): -As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: -This course develops essential understanding of Artificial Intelligence and Digital Literacy for contemporary learners. It introduces basic AI concepts such as data, algorithms, machine learning, and automation through simple, design-related examples, while also addressing applications, limitations, and ethical concerns like bias, privacy, and authorship. Alongside, it builds practical digital skills including effective use of digital platforms, file and data management, cloud collaboration, cybersecurity awareness, and critical evaluation of online information. The course emphasizes responsible use of technology, organized digital workflows, and the application of digital tools for research, communication, and portfolio development in academic and professional contexts

This domain based structure is intended to encourage cross disciplinary engagement, and thematic continuity beyond core disciplinary boundaries.

The topics under Liberal Studies & Life Skills IV are subject to change under the availability of resource persons.However the domain for this course will remain 'Cognitive Skill'.

Following is the list of tentative modules.

Liberal Studies & Life Skills IV (Cognitive Skills)

- Fundamental of Artificial Intelligence
- Digital Literacy

Additional potential topics can be offered time to time

Description of course

Fundamentals of Artificial Intelligence (Cognitive domain)
This Liberal Studies & Life Skills module introduces the fundamental ideas of Artificial Intelligence and how they shape everyday digital tools, creative work, and design processes. Students explore basic concepts such as data, algorithms, machine learning, pattern recognition, and automation through simple, non-technical examples relevant to architecture, interiors, and visual arts. The course discusses opportunities and limitations of AI in areas like image generation, form-finding, analysis, and decision support, alongside concerns of bias, privacy, authorship, and ethics. Through short activities, demonstrations, and reflective tasks, learners develop informed curiosity about AI, learning to question, interpret, and responsibly use AI-enabled tools in their academic and professional life.

Digital Literacy (Cognitive domain)
This Liberal Studies & Life Skills module focuses on building practical digital literacy as a core cognitive and life skill for contemporary learners and professionals. Students learn to navigate digital platforms effectively, manage files and data, use cloud and collaboration tools, and practice safe and responsible behaviour online. The course includes critical reading of online information, basic understanding of digital footprints and cybersecurity hygiene, and thoughtful use of social media and communication apps in academic and professional contexts. Emphasis is placed on organizing digital work, backing up and sharing content, and using digital tools to support research, visual communication, and portfolio development.
Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	**Foundations and Applications of AI** Introduction to AI, core concepts (data, algorithms, machine learning, pattern recognition, automation), and applications in architecture, interiors, and visual arts such as image generation, generative design, and decision support.	8
Unit 2	**Critical Understanding and Responsible Use of AI** Opportunities and limitations of AI; human-AI interaction; issues of bias, privacy, authorship, intellectual property, and ethical use in academic and professional contexts with reflective engagement.	8
Unit 3	**Digital Tools, Platforms, and Information Literacy** Digital ecosystems, file management, cloud tools, collaboration platforms, communication tools, and critical evaluation of online information.	8
Unit 4	**Digital Responsibility and Application in Academic Work** Cybersecurity, digital footprints, safe online behaviour, ethical practices, and application of digital tools for research, organization, collaboration, and portfolio development.	8

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	U Level	A Level	N Level	E Level	C Level
10%	25%	20%	15%	15%	15%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	*The respective course faculty will determine and recommend reference materials according to the specific requirements of the course content.*				

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to explain key concepts related to contemporary digital technologies and information, and apply them to make more informed, critical, and efficient use of digital tools in their academic work.	50%
CO 2	Students will be able to demonstrate responsible and effective digital practices, including safe online behaviour, organized management of digital resources, and thoughtful use of technology to support learning, creativity, and collaboration.	50%

List of Open learning website: NA
List of Open Source Software: NA
List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	*The respective course faculty will determine the exercises/assignments based on the topics offered and will convey the same to the students.*

Important Note:

a. For evaluation purposes the ERP will only contain the course code and course title. Mention will be made of the domain acquired after completion of the course in the semester end results issued by the Sarvajanik University.
b. Evaluation of Liberal Studies and Life Skills shall be developmental and formative in nature, aligned with the objectives of the component.
   Assessment methods may include:
   - Participation and engagement
   - Reflective journals or submissions

- Group activities and exercises
- Demonstrated competencies or behaviours

Quantitative grading shall be used only where appropriate and approved. Emphasis shall be placed on meaningful feedback rather than comparative ranking.

- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding Liberal Studies & Life Skills, will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / MS IDPT I & R meetings/ACC meetings
- For further details, refer Standard Operating Manual(SOM) for Special Academic Components prepared for the programmes of MS-IDPT

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	2.0	
Semester	**IV**			Effective From	June 2026 (For all batc hes admitted 2025 onwards)	
Course Code	BRAR24405		Course Name	Building Information Modelling -II -		
Course Type	**Ability Enhancement Courses (AEC)**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: - The course focuses on "Parametric and Computational Design" which enables students to represent complex forms and ideas in third dimension.

This course introduces students to the fundamental techniques of creating complex 3D models with all relevant technical data and convert ideas into reality to execute the building. This course enables students to overcome limitations in representing fluid or parametric architecture.

Content:

Sr. No.	Description	No. of Hours
Unit 1	**Exploring Software** • The unit focuses on exploration, understanding potential and applicability of Rhinoceros (latest version). Understanding user interface, tools and its application in developing complex 3D models and its complex form.	12
Unit 2	**Building modelling** • The unit focuses on developing 3D models through small exercise(s). Understanding of editing tools, its applicability in modifying the model. • The 3D model focuses on resolving complex structural systems in accordance with materials.	6

Unit 3	**Technical Output** • Design relies on technical illustration and 2D drawing to concisely communicate ideas, specifications, and instructions to people in design, development, and fabrication. It focuses on using Rhino to create 2D drawings and illustrations across disciplines, incorporating various notation systems and visual styles. Annotation elements include arrows, dots, dimensions, text, and notes. • Annotation objects include arrows, dots, dimensions, text, dimensions and notes.	6
Unit 4	**Rendering** • The unit focuses on output of the model generated in rendered manner. Setting up views, scaling of materials according to scale of drawings, setting up layouts and rendering animation as outcome.	4
Unit 5	**Inspection and Analysis** • This unit focuses on inspecting and analysing form, geometry and its stability. Rhino & Grasshopper has a highly optimized plug-in for day lighting and energy modelling. Various plug-ins allow users to carry out a series of environmental performance evaluations of individual buildings and urban landscapes. • Introduction to Grasshopper and is application with Rhino	4

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
10%	10%	20%	20%	10%	30%

Legends: R: Remembrance, U: Understanding; A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)
Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the Final Evaluation may vary slightly from above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Architectural Design with Rhinoceros and Grasshopper	Arturo Tedeschi	Le Penseur Publisher, ISBN: 978-8895315300	2014	1st Edition
2	Rhino 3D Modeling Guide	Kyle Houchens	SDC Publications, ISBN: 978-1630570361	2016	1st Edition
3	Inside Rhinoceros 5	Ron Cheng	Delmar Cengage Learning, ISBN: 978-1111129194	2013	1st Edition

4	Parametric Design for Architecture	Wassim Jabi	Laurence King Publishing, ISBN: 978-1780675367	2017	1st Edition
5	AAD Algorithms-Aided Design: Parametric Strategies Using Grasshopper	Arturo Tedeschi	Le Penseur Publisher. ISBN: 978-8895315300	2014	1st Edition

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand the principles of parametric and computational architecture and their application in design.	30%
CO-2	Explore and develop complex 3D forms using Rhinoceros and Grasshopper tools.	20%
CO-3	Analyze and evaluate design through inspection. environmental analysis, and performance parameters.	30%
CO-4	Apply technical representation methods including 2D drawings, annotations, and visual outputs for effective communication of design.	20%

List of Open learning website: (only suggestive)

- McNeel Rhino Learn – https://www.rhino3d.com/learn
  Official learning resources and tutorials for Rhinoceros software.
- Grasshopper Primer – https://grasshopperprimer.com
  A comprehensive beginner's guide to understanding Grasshopper for parametric design.
- Autodesk Design Academy – https://academy.autodesk.com
  Provides learning resources related to digital design, modelling, and architectural workflows.
- YouTube Educational Channels (e.g., RhinoCentre, Balkan Architect, Designalyze)
  Provide tutorials on Rhino modelling, parametric design, and visualization workflows.

List of Open Source Software: (only suggestive)

- Blender – Open-source software for 3D modelling, rendering, and animation used widely in design visualization.
- FreeCAD – Parametric open-source 3D modelling software suitable for product design and engineering modelling.
- SketchUp Free (Web Version) – A browser-based modelling tool useful for conceptual massing and spatial studies.
- OpenStudio – Open-source platform used for building energy modelling and environmental performance analysis.

List of Exercises:

Sr. No.	Studio Exercises / Assignments for CCE
1	Students have to create models of 10 objects from everyday use using Rhinoceros. The exercise focuses on understanding and applying the modelling commands learned during the course such as BlendSrf, FilletSrf, EdgeSrf, Revolve, RailRevolve, Shell, TweenCurves, TweenSurfaces, and Extrude Curve/Surface. The models should demonstrate correct proportions, clean geometry, and proper surface creation.
2	Students have to design a café based on a selected theme by applying the modelling commands learned in the course. The design should include basic architectural elements along with furniture and interior components. Students should apply basic materials and textures to the model and may also design custom furniture elements as part of the café space. The evaluation will be based on design quality, creativity, and application of modelling tools.
3	Students must develop a set of parametric design elements such as parametric furniture, façade systems, or building forms using Rhinoceros. The exercise requires the application of multiple commands including ExtrudeSrf, OffsetSrf, Sweep1, Sweep2, FilletSrf, BlendSrf, Revolve, RailRevolve, FlowAlongSrf, TweenCurves, Loft, TweenSurfaces, Rebuild, Split, ExtractIsocurve, CutPlane, BooleanDifference, ExtractWireframe, Twist, Bend, and SubD. A minimum of 10 objects should be developed within a single Rhino file, with appropriate materials applied to the models.

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Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	1.0	
Semester	**IV**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BFEL15401	Course Name		**Professional Elective 4 A** *(Art Theory and Practices II)*		
Course Type	**Skill Enhancement (Elective) Course (SEC)**					
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

Prerequisite (if any): -As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: - Professional electives are structured to provide students with the opportunity to explore specialised areas of interest beyond the core curriculum, focusing on skill enhancement, thereby deepening their knowledge and competency in targeted domains. These electives emphasise flexibility and individual choice, allowing students to align their academic journey with personal career aspirations and evolving industry dynamics. By engaging with advanced topics, emerging trends and technologies, and real-world applications, students enhance their creative thinking, technical proficiency, and professional preparedness. The rationale for integrating professional electives lies in fostering a learner-centered approach that promotes adaptability, innovation, learner autonomy, skill enhancing engagements, and the integration of academic inquiry with evolving industry standards, practices and expectations

For all electives offered under the domain *Professional Elective 4A* **(Art Theory and Practices II)**, the above prescribed course code and course title shall remain common.

If the suggested elective course content overlaps with the core course of any bachelor programme, the expert/resource person shall design exercises or tasks that emphasize complementary and distinct aspects beyond those covered in the core course syllabus.

The topics under professional electives are subject to change depending on the availability of resource persons.However the domain for this elective will remain **(Art Theory and Practices II)**'.

Following is the list of tentative electives.

Professional Elective 4A (Skill Enhancement)

- **3D Printing**
- **Puppetry**
- **3D Animation**
- **Synergy with Structure from Architecture**
- **Film Making & Visual Effects**

Description of course

3D Printing

This elective introduces students to three dimensional digital fabrication as a bridge between conceptual design and physical prototyping. Learners move from basic 3D modelling workflows to preparing print ready files, understanding scale, tolerance, material behaviour, and simple assembly strategies. The course emphasizes iterative making, where students refine their models based on print outcomes, structural performance, and tactile feedback. Applications span from product and furniture components to small architectural or interior elements and sculptural visual art pieces, strengthening students' ability to think and communicate through precise three dimensional artefacts.

Puppetry

This elective explores puppetry as a powerful medium that combines form making, articulation, narrative, and performance. Students design and construct different kinds of puppets using accessible materials, learning basic mechanisms for movement and expression along with fundamentals of character development and storytelling. Sessions integrate drawing, model making, and simple staging to connect visual form with gesture, voice, and audience engagement. The course helps students translate spatial and visual ideas into time based experiences, useful for communicating design intent, community engagement, and narrative driven visual art.

3D Animation

This elective builds on foundational visual skills to introduce students to three dimensional animation as a tool for representing spaces, objects, and stories. Learners work with simple 3D assets to understand basic modelling, lighting, camera movement, and keyframe based animation, focusing on clarity of idea rather than software complexity. Short exercises guide them through creating animated sequences that communicate form, material, movement, and atmosphere, relevant to architectural walkthroughs, interior experience, and visual art narratives. The course strengthens spatial imagination, timing, and visual storytelling, and encourages students to integrate sound and editing for coherent outputs.

Synergy with Structure from Architecture

This elective focuses on understanding structure as an integral part of spatial and visual expression rather than a separate technical layer. Through simple models, diagrams, and case studies, students investigate how structural systems such as frames, shells, trusses, and tensile forms can inform proportion, rhythm, enclosure, and experience. Hands on explorations with basic materials help learners intuit load paths, stiffness, and stability, while also discovering poetic and expressive potentials of structure. The course

nurtures sensitivity to the dialogue between form and force, relevant to architectural design, interior elements, and sculptural visual arts.

Film Making & Visual Effects

This elective introduces the fundamentals of visual storytelling through moving image, including framing, composition, shot types, sound, and basic editing. Students plan and produce short films or video pieces that may document spaces, interpret narratives, or communicate design concepts, and then enhance them with simple visual effects to reinforce mood, scale, and atmosphere. Emphasis is placed on storyboarding, collaborative production, and clear visual intention rather than technical complexity. The course equips learners to use film as a medium for critique, documentation, and presentation in architecture, interior design, and visual arts.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	Concept Development / Ideation	6
Unit 2	Process Work / Exploration (Studio Work, Iterations, Experimentation)	10
Unit 3	Skill / Technique / Material Handling	6
Unit 4	Final Outcome / Product / Prototype / Presentation (Verbal / Visual / Documentation)	10

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
5%	15%	25%	15%	10%	30%

Legends: R: Remembrance, U: Understanding, A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the final evaluation may vary slightly from the above table.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition

Note:	*The respective course faculty will determine and recommend reference materials according to the specific requirements of the course content.*

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will demonstrate advanced hands-on and digital skills by conceiving and producing resolved artefacts or media outputs that translate design or artistic intentions into coherent, testable outcomes.	50%
CO 2	Students will integrate creative, analytical, and communicative abilities to plan, iterate, and present visual or spatial works, articulating their conceptual frameworks and technical decisions through appropriate visual and verbal means.	50%

Use the same CO 1 and CO 2 for all five electives; intensity levels can be adjusted if needed at programme level.

List of Exercises:

Sr. No.	Studio Exercises/Assignments for CCE
1	*Exercises/assignments may vary periodically as per availability of resource person / subject expert.*

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title with domain. No specification or mention will be made of the specific skill/ ability/ competence acquired after completion of the elective in the semester end results issued by the Sarvajanik University.
- Evaluation of Professional Electives shall be conducted by the designated faculty member or subject expert or the designated panel appointed as examiner by the Institute
- The evaluation framework may include, as appropriate:
  - Continuous assessment
  - Studio or workshop outputs
  - Reports, portfolios, or presentations
  - Applied projects or assignments
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding electives, will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings
- For further details, refer Standard Operating Manual(SOM) for Special Academic Components prepared for the programmes of MS-IDPT

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SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	1.0	
Semester	**IV**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BFEL16402		Course Name	Transdisciplinary Open Elective 4B (**Indian Constitution and Legal System**)		
Course Type	**Common Value Added (Elective) Courses (VAC)**			-		
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	2	2	13/25	13/25	50

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

The minimum passing head is 50%, it is rounded to 13 marks to avoid "E &O" (Errors & Omissions) arising due to decimal value.

The Content of the course also includes relevant topics from Indian Knowledge System (IKS) and/ or Value Added Courses (VAC) as per the guidelines of NEP/UGC/KCG along with other recommended module for learning flexibility

Prerequisite (if any): - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: - The domain of *Indian Constitution & Legal System* introduces students to the foundational principles, institutions, and processes that govern democratic life and public decision-making in India. It provides an understanding of the Constitution of India as the supreme framework that defines rights, duties, governance structures, and the relationship between citizens and the state.

The domain covers key aspects such as constitutional values, fundamental rights and duties, the structure and functioning of the legislature, executive, and judiciary, as well as legal mechanisms like judicial review and the Right to Information. It also highlights how laws and legal interpretations influence issues related to land, environment, culture, public spaces, and professional practice.

This domain builds awareness of legal and ethical responsibilities, enabling them to engage with communities, public institutions, and shared environments in a more informed, inclusive, and responsible manner.

For all electives offered under the domain Transdisciplinary Open Elective 4B (India Constitution and Legal System), the above prescribed course code and course title shall remain common.

If the suggested elective course content overlaps with the core course of any bachelor programme, the expert/resource person shall design exercises or tasks that emphasize complementary and distinct aspects beyond those covered in the core course syllabus.

The topics under Transdisciplinary Open Elective are subject to change depending on the availability of resource persons.However the domain for this elective will remain 'India Constitution and Legal System'.

Following is the list of tentative electives..

Transdisciplinary Open Elective 4B (India Constitution and Legal System)

- **Indian Constitution**
- **Indian Judiciary**
- **Fundamental Rights**
- **RTI**

Description of course

Indian Constitution

This elective introduces the historical evolution, philosophy, and basic structure of the Indian Constitution within the domain of India Constitution and Legal System, with a focus on its relevance to citizens and future professionals. Students study key features such as the Preamble, Union and State structure, separation of powers, federalism, directive principles, and constitutional amendments through cases and contemporary examples. Emphasis is placed on how constitutional values like justice, liberty, equality, and fraternity inform public policy, rights based planning, and inclusive development of settlements and cultural spaces. The course helps students relate these foundations to their roles as responsible professionals working with communities, public institutions, and shared environments.

Indian Judiciary

This elective familiarizes students with the structure, functions, and processes of the Indian judiciary as a key pillar of the India Constitution and Legal System. It covers the hierarchy of courts, jurisdiction, judicial review, public interest litigation, and the roles of judges, lawyers, and other legal actors, along with selected landmark judgments that have shaped public life. Discussions highlight how legal interpretations influence land, environment, cultural property, labour, and other issues that intersect with the built and visual environment. The course encourages students to appreciate how judicial processes affect professional responsibilities, project approvals, cultural expressions, and citizens' access to justice.

Fundamental Rights

This elective focuses on fundamental rights and related duties guaranteed by the Constitution as a core component of the India Constitution and Legal System. Students explore key rights such as equality, freedom, protection against exploitation, cultural and educational rights, and constitutional remedies, along with the idea of reasonable restrictions and directive principles. Through case based discussions, they examine how rights questions arise in everyday life, public spaces, media, and cultural production, including issues of expression, identity, accessibility, and non discrimination. The course enables students to

see how awareness of rights and duties informs ethical practice, inclusive design, and responsible artistic and communicative work.

RTI

This elective introduces the Right to Information (RTI) as a tool for transparency and accountability within the India Constitution and Legal System. Students learn the objectives, scope, and basic procedures of RTI, types of public bodies covered, and limitations such as exemptions and privacy concerns. Through simplified examples and draft RTI exercises, they see how information about public projects, planning decisions, budgets, and institutional processes can be accessed and interpreted by citizens. The course equips students with a practical understanding of how RTI can support informed participation, critical inquiry, and socially responsible professional work.

Content:

Sr. No.	Description	No. of Hours
Based on the topic offered the units will be detailed out by the concerned faculty considering following suggestive guidelines…		
Unit 1	Foundations & Framework	8
Unit 2	Structure & Institutions	8
Unit 3	Rights, Duties & Legal Provisions	8
Unit 4	Processes, Applications & Case Studies	8

Suggested Specification table for Evaluation:

Distribution of Evaluation					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
15%	25%	20%	15%	10%	15%

Legends: R: Remembrance, U: Understanding, A: Apply, N: Analyze, E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the final evaluation may vary slightly from the above table as per the elective opted by the student.

Reference Books:

Sr No	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition

1.	*Note: The respective course faculty/instructor/expert will determine and recommend reference materials according to the specific requirements of the course content.*

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO 1	Students will be able to explain key features of the Indian Constitution and legal system, including institutions, rights, and processes, and relate them to their roles as informed citizens and future design and art professionals.	50%
CO 2	Students will be able to analyze simple, real life situations in terms of constitutional values, fundamental rights, and basic legal provisions, and reflect on their implications for ethical and inclusive professional practice.	50%

List of Exercises:

Sr. No.	Studio Exercises/Assignments for CCE
1.	*The exercises of transdisciplinary electives may be subject to periodic revision based on the availability of elective options, institutional priorities, and the academic or professional expertise of the faculty offering the course.*

Important Note:

- For evaluation purposes the ERP will only contain the course code and course title along with domain. No specification or mention will be made of the specific skill/ ability/ competence acquired after completion of the elective in the semester end results issued by the Sarvajanik University.
- Evaluation of Transdisciplinary Open Electives shall be conducted by the designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- Evaluation may include reflective assignments, participation, projects, presentations, or other suitable assessment tools aligned with learning objectives.
- The academic judgement of the evaluator and coordinator shall be final and binding, subject only to verification of procedural compliance. However, the Institute reserves the right to rationalize/neutralize the marks/grades/evaluation in view of fair and relative institutional standards of evaluation through jury/viva/group discussion/performance or any other mode found appropriate/suggested by the concerned designated faculty member or subject expert or the designated panel appointed as examiner by the Institute.
- No standardised question paper shall be mandatory unless specifically prescribed.
- All decisions regarding electives will remain the prerogative of the institute and appropriate decision for the same will be taken after due discussion in the elective committee meetings / IDPT I & R meetings/ACC meetings
- For further details, refer Standard Operating Manual(SOM) for Special Academic Components prepared for the programmes of MS-IDPT

SARVAJANIK UNIVERSITY
INCLUSIVE | INTEGRATED | INNOVATIVE

SARVAJANIK UNIVERSITY

Faculty of Architecture, Design, Planning and Technology

Bachelor of Architecture

Year: B. Arch II (Semester IV)

MITRAJ SARVAJANIK INSTITUTE OF DESIGN, PLANNING & TECHNOLOGY						
Faculty	FADPT			Programme	**B.Arch.**	
Year	**II**			Version	1.0	
Semester	**IV**			Effective From	June 2026 (For all batches admitted 2025 onwards)	
Course Code	BFGN16402		Course Name	Related Study Program (Mandatary non-auditable credit)		
Course Type	**Common Value Added (Elective) Courses (VAC)**			-		
Teaching Scheme				**Examination Scheme**		
Credits	Lecture	Studio	Total	CCE	SEE	Total
2	-	-	-	-	-	-

CCE: Continuous and Comprehensive Evaluation including 20% of Attendance, 80 % of Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems/periodic assessment conducted by institute.

SEE: Sem End Evaluation: Theory Exam or Jury/viva on practical skills learned in course. In case of theory exams the question paper of minimum 50 marks (2hrs) will be drawn for evaluation.

Prerequisite: - As per semester progression rule of Sarvajanik University /promotion eligibility.

List of Courses where this course will be prerequisite: - NA

Rationale: Related Study Programmes (RSPs) are conceived as integral academic components that extend learning beyond the boundaries of conventional classroom and studio pedagogy.

The primary rationale of incorporating RSPs into the curriculum is to bridge the gap between theoretical understanding and practical application. While core and elective courses establish foundational knowledge and disciplinary frameworks, RSPs enable students to test, apply, and expand these learnings in diverse contexts such as field studies, workshops, competitions, conferences, and industry-linked engagements. This ensures that learning remains dynamic, relevant, and aligned with contemporary professional practices.

RSPs are designed to foster self-managed & directed learning, critical thinking, and adaptive skills by exposing students to varied modes of knowledge delivery, including hands-on training, peer learning, digital platforms, and global academic interactions. The inclusion pre-approved workshops, and ooffline certifications further ensures that students remain updated with evolving technologies, tools, and methodologies relevant to their domain.

Another key rationale lies in promoting academic flexibility while maintaining institutional rigor. Through a structured approval, supervision, and evaluation mechanism, RSPs ensure that all activities undertaken by students meet defined standards of academic relevance, quality, and outcome alignment. This prevents dilution of academic intent while encouraging exploration and innovation.

RSPs also support the development of holistic competencies such as communication, collaboration, professional ethics, and cultural awareness. Participation in national and international seminars, CoA

(Council of Architecture) competitions, exchange programmes, and cultural or sports representations contributes to the overall personality development of students, preparing them for diverse professional and societal roles.

Importantly, RSPs are not treated as extracurricular engagements but as formally recognised academic components with defined workload, evaluation criteria, and credit acknowledgement. This reinforces their significance within the curriculum and ensures accountability in terms of participation, documentation, and performance.

In summary, the rationale of RSPs lies in enriching the academic ecosystem by integrating experiential, flexible, and context-driven learning opportunities, thereby producing graduates who are not only academically competent but also professionally agile and socially responsive.

Important Note:

- Field based academic studies/documentation.
- The implementation and approval of RSP should be done as per the SOM (Standard operating manual) dated 9th January 2026 attached as annexure approved in BOS & Faculty meeting held on 17th March 2026.

SARVAJANIK UNIVERSITY
B.ARCH INSTITUTE OF DESIGN PLANNING & TECHNOLOGY (IDPT)-SCET

Bachelor of Architecture (B.Arch)				YEAR 1 (Foundation) SOCIALLY RESPONSIVE				YEAR 2 (Exploration) CRITICALLY EVOLVED				YEAR 3 ([illegible]) INTELLECTUALLY COMPETENT				YEAR 4 ([illegible]) PROFESSIONALLY SKILLED				YEAR 5 (Synthesis) PROGRESSIVE CITIZEN				TOTAL	
	Code Suffix	[illegible]	GROUP	SEM 1	Credits	SEM 2	Credits	SEM 3	Credits	SEM 4	Credits	SEM 5	Credits	SEM 6	Credits	SEM 7	Credits	SEM 8	Credits	SEM 9	Credits	SEM 10	Credits	T. Credits	%
Major (Core) (Disciplinary/ Interdisciplinary Major)	1	1	Design Major	Foundation Studio I	6	Foundation Studio II	6	Environmental Design Studio (IKS)	10	Habitat Design Studio (IKS)	10	Design Realisation Studio	12	Master Planning & Architecture Design Studio	12	Advanced Architectural Design Studio	14	-	-	Specialization Studio - Tectonics Studio	12	Thesis (Design/ Research Project)	16	130	50.0
	2	1	Building Science	Basics of Building Materials & Components	4	Building Materials, Construction and Environmental Studies	4	Building Technology - I - Construction & Services	4	Building Technology - II Construction & Services	4	Building Technology - III - Advanced Construction & Services	4	Building Technology - IV - Advanced Construction & Services	4	-	-	-	-	Research Seminar	4				
Minor Stream (Disciplinary/ Interdisciplinary Minor) (ELECTIVE)	3	3	Applied Engineering	Structure Design I	2	Structure Design II	2	Structure Design III	2	Structure Design IV	2	Structure Design V	2	Structure Design VI	2	High-Tech Structures & Performance Analysis	6	-	-	Urban Design	4	-	-	40	15.4
	4	3	Design Minor	Graphics & Visual Representation I	4	Graphics & Visual Representation II	4	History & Theory of Architecture I	2	History & Theory of Architecture II	2	History and Theory of Architecture III	2	History and Theory of Architecture IV	2	Human Settlement Planning (Housing Theories)	2	-	-	Building Economics & Construction Management	2	Urban Anthropology & Ethics	2		
	5	3	Humanities	Society & Culture I	2	Society & Culture II	2											-	-	-	-	-	-		
Multidisciplinary / Interdisciplinary	6	2	Liberal Studies and Life Skills	LSLS I (Psychosocial Skills I) 1. Public speaking 2. Team building	2	LSLS II (Psychosocial Skills II) • Psychology • Social & Cultural Etiquette	2	LSLS III (Psychomotor Skills) Survival Skills - Self-Help Skills (Swimming/ Rafting/ Firefighting/ Health - CPR • Handling/ Maintenance & Repairing/ Life saving during trekking)	2	LSLS IV (Cognitive Skills) • Fundamental of Artificial Intelligence • Digital Literacy	2	LSLS V (Affective I) • Voluntary Actions • Environmental Awareness	2	LSLS VI (Affective II) 1. Art appreciation 2. Film appreciation	2	-	-	-	-	-	-	-	-	12	4.6
Ability Enhancement Courses (AEC)	7	4	Professional Ability Enhancement Courses (PAEC)	Communication Skills	2	Communication Skills and Personality Development	2	Building Information Modelling - I	2	Building Information Modelling - II	2	Site Planning & Landscape	2	Research Methods	2	Research Skills	2	Professional Training	18	-	-	Professional Practice	4	36	13.8
Skill Enhancement (Elective) Courses (SEC) (ELECTIVE)	8	9	Professional Electives	PE 1A (Craft Skills I) • Paper Mache • Print Making • Textile Dyeing & Printing • Origami & Kirigami • Calligraphy	2	PE 2A (Craft Skills II) • Model Making • Architectural Photography • Interior Photography • Wall Mural • Traditional & Contemporary Craft - IKS Context	2	PE 3A (Art Theory and Practices I) • Assemblage Art • History of Civilization/Art/Style • Relief Printing • Basics of Animation • Paper Sculpture	2	PE 4A (Art Theory and Practices II) • 3D Printing • Puppetry • 3D Animation • Synergy with Structure from Architecture • Film Making & Visual effects	2	PE 5A (Professional Competence I) • Disaster Management • Furniture & Product Design • Lighting Design of HVAC • Building Envelope Design • Miniature Painting • Museology	2	PE 6A (Professional Competence II) • Universal Design • Street Design • Pre approved courses*	2	PE 7A (Career Advancement I) • Earthquake Resistance Architecture • Green Building Rating System • Pre approved courses*	2	PE 8A (Career Advancement II) • NPTEL / Swayam / MOOC (Pre Approval mandatory)*	2	PE 9A (Career Advancement III) • Architecture Conservation • Healthcare Architecture • Pre approved courses*	2	PE 10 (Career Advancement IV) • Climate Change & Resilience • Built Environment & Humanities • Pre approved courses*	2	20	7.7
Common Value Added (Elective) Courses (VAEC) (VAC/IKS)	8	6	Trans-disciplinary Open Elective	TOE 1B (Indian Performing Arts) 1. Dance - IKS Context • Drama • Music (Instrumental) - IKS Context • Music (Vocal) - IKS Context	2	TOE 2B (IKS and Health Science) • Self Defence • Indian Yoga Practices • Health Awareness (Mental, Social, Ayurveda, Physical, Spiritual) • Wellness & Nutrition • Outreach of Indian Knowledge System	2	TOE 3B (Financial Literacy) • Banking • Basics of Accounting • Basics of Taxation • Insurance	2	TOE 4B (Indian Constitution and Legal System) Indian Constitution • Indian Judiciary • Fundamental Rights • RTI	2													14	5.4
Applied Study Programme	10						2				2				2										
Credits / Contact Hours					26		28		26		28		26		28		26		20		26		26	260	
No. of Subjects																									

Note: Minimum 03 Nos. of RSP will have to be completed by a student during the entire study duration to become eligible for graduation certificate. Each RSP will carry a weightage of 2 Credits and every year 1 RSP will be granted. Students will have to earn All the 3 mandatory RSP before registering for Final Year. RSP credits are non-audited credits but the earning of these credits is mandatory for granting the Final year term end award of Final degree certificate.
*All PEs are based on IKS...

Liberal Studies & Life Skills Topics

Semester	Course Code	Course Type	Course Name	Domain	offered to	courses offered	Suggested resource persons for consideration / or in advisory capacity
Semester 1	BFGN13102	Multidisciplinary /Interdisciplinary (MDC)	Liberal Studies & Life Skills I	Psychosocial Skills I	BARCH BID BVA	• Public Speaking • Team Building	• Ms. Maharukh Chichgar • Dr. Parinaz Bharucha
Semester 2	BFGN13202	Multidisciplinary /Interdisciplinary (MDC)	Liberal Studies & Life Skills II	Psychosocial Skills II	BARCH BID BVA	• Psychology • Social & Cultural Etiquette	• Mr. Murtuza Railwaywala • Ms. Maharukh Chichgar
Semester 3	BFGN13301	Multidisciplinary /Interdisciplinary (MDC)	Liberal Studies & Life Skills III	Psychomotor Skills	BARCH BID BVA	• Survival Skills - Self Help Skills (Swimming /Sailing / Firefighting / Health - CPR - Nursing / Maintenance & Repairing / Life saving during trekking)	• External Experts from each category.
Semester 4	BFGN13401	Multidisciplinary /Interdisciplinary (MDC)	Liberal Studies & Life Skills IV	Cognitive Skills	BARCH BID BVA	• Fundamental of Artificial Intelligence • Digital Literacy	• Expert from SCET • Expert from SCET
Semester 5	BFGN13501	Multidisciplinary /Interdisciplinary (MDC)	Liberal Studies & Life Skills V	Affective Skills I	BARCH BID BVA	• Voluntary Actions • Environmental Awareness	• Aakash Bansal • Aakash Bansal
Semester 6	BFGN13601	Multidisciplinary /Interdisciplinary (MDC)	Liberal Studies & Life Skills V	Affective Skills II	BARCH BID BVA	• Art Appreciation • Film Appreciation	• Prof. Naishadh Jani • Mr. Janantik Shukla
Additional potential topics can be offered time to time						• Self-exploration & Personality Building • Sociology • Fundamental of Economics	

Professional Electives

Semester	Course Code	Course Type	Course Name	Domain	offered to	courses offered	Suggested resource persons for consideration / or in advisory capacity
Semester 1	BFEL15101	Skill Enhancement Course (SEC)	Professional Elective 1A	Craft Skills I	BARCH BID BVA	• Paper Mache • Print Making • Textile Dyeing & Printing • Origami & Kirigami • Calligraphy	• Prof. Abhishek Mandala • Prof. Rajashri Smart • Ar. Prathma Desai • Prof. Krunal Zaveri • Mr. Vipul Sondagar
Semester 2	BFEL15201	Skill Enhancement Course (SEC)	Professional Elective 2A	Craft Skills II	BARCH BID BVA	• Model Making • Architectural Photography • Interior Photography • Wall Mural • Traditional & Contemporary Craft - IKS Context	• Prof. Krunal Zaveri • Mr. Advait Pandya • Ar. Setu Chhaya • Prof. Dr. Jasmin Kaur • Prof. Krushnapriya
Semester 3	BFEL15301	Skill Enhancement Course (SEC)	Professional Elective 3A	Art Theory & Practices I	BARCH BID BVA	• Assemblage Art • History of Civilisation/Art/Style • Relief Printing • Basics of Animation • Paper Sculpture	• Prof. Abhishek Mandala • Prof. Naishadh Jani • Prof. Kuanjan Goswami • Prof. Yogendra Patel • Prof. Krunal Zaveri
Semester 4	BFEL15401	Skill Enhancement Course (SEC)	Professional Elective 4A	Art Theory & Practices II	BARCH BID BVA	• 3D Printing • Puppetry • 3D Animation • Synergy with Structure from Architecture • Film Making & Visual Effects	• Mr. Aniket Tandel • Prof. Krushnapriya • Prof. Yogendra Patel • Prof. Nehal Desai • Mr. Janantik Shukla
Semester 5	BFEL15501	Skill Enhancement Course (SEC)	Professional Elective 5A	Professional Competence I	BARCH BID BVA	• Disaster Management • Furniture & Product Design • Lighting Design or HVAC • Building Envelope Design • Miniature Painting • Museology	• Prof. Sangita Mohanty • Prof. Priyank Parekh • External Expert • External Expert • Prof. Dr. Jasmin Kaur • Ms. Bhamini Mahida
Semester 6	BFEL15601	Skill Enhancement Course (SEC)	Professional Elective 6A	Professional Competence II	BARCH	• Universal Design • Street Design • Pre approved courses*	• Prof. Sarupa Dave + Prof. Tejas Patel • Prof. Dr. Jasmin Kaur
Semester 7	BFEL15701	Skill Enhancement	Professional Elective 7A	Career Advancement	BARCH	• Earthquake Resistance Architecture • Green Building Rating System	• Prof. Dr. Nehal Desai • Prof. Chintan Shah + Mr.

		Course (SEC)		I		• Pre approved courses*	Gaurav Jain
Semester 8	BFEL15801	Skill Enhancement Course (SEC)	Professional Elective 8A	Career Advancement II	BARCH	• NPTEL / Swayam / MOOC (Pre Approval mandatory)*	• Prof. Alpa Pandya
Semester 9	BFEL15901	Skill Enhancement Course (SEC)	Professional Elective 9A	Career Advancement III	BARCH	• Architecture Conservation • Healthcare Architecture • Pre approved courses*	• Prof. Alpa Pandya • Prof. Mahesh Nagecha
Semester 10	BFEL15001	Skill Enhancement Course (SEC)	Professional Elective 10A	Career Advancement IV	BARCH	• Climate Change & Resilience • Built Environment & Humanities • Pre approved courses*	• Prof. Sangita Mohanty • Prof. Vahbiz Engineer + Prof. Niraj Naik

Trans-Disciplinary Open Electives

Semester	Course Code	Course Type	Course Name	Area/Domain	offered to	All Bachelor Programme	Suggested resource persons for consideration / or in advisory capacity
Semester 1	BFEL16102	Common Value Added (Elective) Course (VAC)	Transdisciplinary Open Elective 1B	Indian Performing Arts	BARCH BID BVA	• Dance - IKS Context • Drama • Music (Instrumental) - IKS Context • Music (Vocal) - IKS Context	• Ms. Rajvi Vyas • External Expert • External Expert • External Expert
Semester 2	BFEL16202	Common Value Added (Elective) Course (VAC)	Transdisciplinary Open Elective 2B	IKS & Health Science	BARCH BID BVA	• Self Defence • Indian Yoga Practices • Health Awareness (Mental, Dental, Ayurveda, Physical, Spiritual) • Wellness & nutrition • Outreach of Indian Knowledge System	• Mr. Visphy Kharradi • Ms. Shail Vakil • External experts • Ms. Farzana Kharradi • Dr. Aanand Pandya
Semester 3	BFEL16302	Common Value Added (Elective) Course (VAC)	Transdisciplinary Open Elective 3B	Financial Literacy	BARCH BID BVA	• Banking • Basics of Accounting • Basics of Taxation • Insurance	• Expert from NJ • Prof. Roshni • External Expert • Expert from NJ
Semester 4	BFEL16402	Common Value Added (Elective) Course (VAC)	Transdisciplinary Open Elective 4B	India Constitution and Legal System	BARCH BID BVA	• Indian Constitution • Indian Judiciary • Fundamental Rights • RTI	All Four courses will be conducted by • Prof. Nikunj Rathod + External Expert
Additional potential topics can be offered time to time					BARCH BID BVA	• Early Indian Culture/ Literature/ Mythology - IKS Context • Cyber Security • Branding & Marketing • Artificial Intelligence in Design	

SARVAJANIK UNIVERSITY
B.ARCH. INSTITUTE OF DESIGN PLANNING & TECHNOLOGY (IDPT)-SCET

Bachelor of Architecture (B.Arch)				YEAR 1 (Foundation) SOCIALLY RESPONSIVE				YEAR 2 (Exploration) CRITICALLY EVOLVED				YEAR 3 (Exploration) INTELLECTUALLY COMPETENT				YEAR 4 (Ideation) PROFESSIONALLY SKILLED				YEAR 5 (Synthesis) PROGRESSIVE CITIZEN				TOTAL		Credits distribution as per KCG (4 Years)	IKS weightage (in credits)	as per KCG (4 years)	% weightage proposed
	Code Suffix	NEW (NEP)	GROUP	SEM 1	Credits	SEM 2	Credits	SEM 3	Credits	SEM 4	Credits	SEM 5	Credits	SEM 6	Credits	SEM 7	Credits	SEM 8	Credits	SEM 9	Credits	SEM 10	Credits	T. Credits	%				
Major (Core) (Disciplinary/ Interdisciplinary Major)	1	1	Design Major	Foundation Studio I	6	Foundation Studio II	6	Environmental Design Studio (IKS)	10	Habitat Design Studio (IKS)	10	Design Realisation Studio	12	Master Planning & Architecture Design Studio	12	Advanced Architectural Design Studio	14	-	-	Specialization Studio - TectonicsStudio	12	Thesis (Design/ Research Project)	18	130	50.0				
	2	1	Building Science	Basics of Building Materials & Components	4	Building Materials, Construction and Environmental Studies	4	Building Technology - I - Construction & Services	4	Building Technology - II Construction & Services	4	Building Technology - III - Advanced Construction & Services	4	Building Technology - IV - dvanced Construction & Services	4	-	-	-	-	Research Seminar	6								
Minor Stream (Disciplinary/ Interdisciplinary Minor) (ELECTIVE)	3	2	Applied Engineering	Structure Design I	2	Structure Design II	2	Structure Design III	2	Structure Design IV	2	Structure Design V	2	Structure Design VI	2	High-Tech Structures & Performance Analysis	6	-	-	Urban Design	4	-	-	48	18.5				
	4	2	Design Minor	Graphics & Visual Representation I	4	Graphics & Visual Representation II	4	History & Theory of Architecture I	2	History & Theory of Architecture II	2	History and Theory of Architecture III	2	History and Theory of Architecture IV	2	Human Settlement Planning (Housing Theories)	2	-	-	Building Economics & Construction Managment	2	Urban Anthropology & Ekistics	2						
	5	2	Humanities	Society & Culture I	2	Society & Culture II	2											-	-	-	-	-	-						
Multidisciplinary / Interdisciplinary	6	3	Liberal Studies and Life Skills	LSLS I (Psychosocial Skills I) 1. Public speaking 2.Team building	2	LSLS II (Psychosocial Skills II) • Psychology • Social & Cultural Etiquette	2	LSLS III (Psychomotor Skills) Survival Skills - Self Help Skills (Swimming /Sailing / Firefighting / Health - CPR - Nursing / Maintenance & Repairing / Life saving during trekking)	2	LSLS IV (Cognitive Skills) • Fundamental of Artificial Intelligence • Digital Literacy	2	LSLS V (Affective Skills I) • Voluntary Actions • Environmental Awareness	2	LSLS VI (Affective Skills II) 1.Art appreciation 2.Film appreciation	2	-	-	-	-	-	-	-	-	12	4.6				
Ability Enhancement Courses (AEC)	7	4	Professional Ability Enhancement Courses (PAEC)	Communication Skills	2	Communication Skills and Personality Development	2	Building Information Modelling - I	2	Building Information Modelling - II	2	Site Planning & Landscape	2	Research Methods	2	Research Skills	2	Professional Training	18	-	-	Professional Practice	4	36	13.8				
Skill Enhancement (Elective) Courses (SEEC) (ELECTIVE)	8	5	Professional Electives	PE 1 A (Craft Skills I) • Paper Mache • Print Making • Textile Dyeing & Printing • Origami & Kirigami • Calligraphy	2	PE 2 A (Craft Skills II) • Model Making • Architectural Photography • Interior Photography • Wall Mural • Traditional & Contemporary Craft - IKS Context	2	PE 3 A (Art Theory and Practices I) • Assemblage Art • History of Civilisation/Art/Style • Relief Printing • Basics of Animation • Paper Sculpture	2	PE 4 A (Art Theory and Practices II) • 3D Printing • Puppetry • 3D Animation • Synergy with Structure from Architecture • Film Making & Visual effects	2	PE 5 A (Professional Competence I) • Disaster Management • Furniture & Product Design • Lighting Design or HVAC • Building Envelope Design • Miniature Painting • Museology	2	PE 6 A (Professional Competence II) • Universal Design • Street Design • Pre approved courses*	2	PE 7A (Career Advancement I) • Earthquake Resistance Architecture • Green Building Rating System • Pre approved courses*	2	PE 8A (Career Advancement II) • NPTEL / Swayam / MOOC (Pre Approval mandatory)*	2	PE 9A (Career Advancement III) • Architecture Conservation • Healthcare Architecture • Pre approved courses*	2	PE 10 (Career Advancement IV) • Climate Change & Resilience • Built Environment & Humanities • Pre approved courses*	2	20	7.7				
Common Value Added (Elective) Courses (VAEC) (VAC/IKS)	9	6	Trans-disciplinary Open Elective	TOE 1 B (Indian Performing Arts) 1. Dance - IKS Context • Drama • Music (Instrumental) - IKS Context • Music (Vocal) - IKS Context	2	TOE 2 B (IKS and Health Science) • Self Defence • Indian Yoga Practices • Health Awareness (Mental, Dental, Ayurveda, Physical, Spiritual) • Wellness & Nutrition • Outreach of Indian Knowledge System	2	TOE 3 B (Financial Literacy) • Banking • Basics of Accounting • Basics of Taxation • Insurance	2	TOE 4 B (Indian Constitution and Legal System) Indian Constitution • Indian Judiciary • Fundamental Rights • RTI	2											14	5.4				
Related Study Programme	10						2				2				2								260					
Credits / Contact Hours					26		26		26		28		26		28		28		20		26		26						
No. of Subjects																													

Note: Minimum 03 Nos. of RSP will have to be completed by a student during the entire study duration to become eligible for graduation certificate. Each RSP will carry a weightage of 2 Credits and every year 1 RSP will be granted. Students will have to earn All the 3 mandatory RSP before registering for Final Year. RSP credits are non-audited credits but the earning of these credits is mandatory for grinding the Final year term and award of Final degree certificate.
All RSP are based on IKS