



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav institute of Architecture
Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
1ST YEAR / II Semester

Barch Curriculum-2026



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav Institute of Architecture
Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
Barch Curriculum-2026

Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore

Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 201: Architectural Design – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers' Assessment* 50%					
PC	AR	STUDIO	ARCH 201	ARCHITECTURAL DESIGN I	Max				250	250	500			10	10
					Min				113	113	226				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

ARCH 201: Architectural Design – I

Course Educational Objectives (CEOs):

S. No.	CEO	Bloom's Level	Domain
CE01	To introduce architectural design as a process of transforming space into place	Understand (L2)	Cognitive
CE02	To develop an understanding of spatial organisation, form, scale, and hierarchy	Understand / Analyse (L2–L4)	Cognitive
CE03	To integrate knowledge from allied subjects into design problems	Apply (L3)	Cognitive + Psychomotor
CE04	To cultivate observation, analysis, and design expression skills	Analyse (L4)	Cognitive

Course Alignment with UNSDG

This course contributes to SDG 11: Sustainable Cities and Communities, SDG 4: Quality Education, and SDG 13: Climate Action by promoting human-centred, context-responsive, and environmentally conscious design approaches.

Course Alignment with IKS and AI:

This course promotes awareness of indigenous architectural knowledge by studying vernacular spatial principles, traditional settlement patterns, climate-responsive design strategies, and culturally rooted approaches to spatial organisation. Students are encouraged to learn from traditional building practices, local wisdom, human-scale environments, and craft-based methods of representation, all of which contribute to context-sensitive and sustainable architectural design.

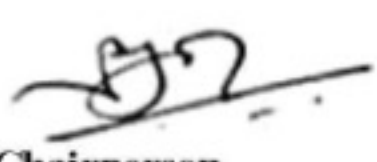
This course introduces students to the responsible use of AI-assisted and digital tools for design exploration, spatial analysis, visualisation, diagramming, and architectural representation. It builds awareness of emerging technologies that support understanding of scale, user behaviour, site context, and design communication, while reinforcing critical thinking, creativity, ethical AI use, and informed decision-making in the design process.

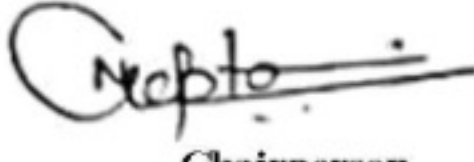
Course outcomes (COs):

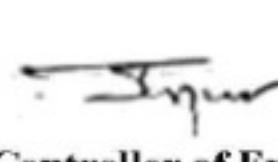
At the end of the course, students will be able to:

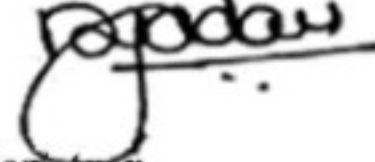
CO	Outcome	Bloom	SDG
CO1	Apply fundamental architectural design concepts in studio exercises	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO2	Interpret spatial organisation, hierarchy, and scale	L2–L4 L4 (Understand) Cognitive (Analyse) Cognitive	SDG 11
CO3	Develop contextual design solutions for small-scale programs	L3 (Apply) Cognitive + Psychomotor	SDG 11, 13
CO4	Integrate site, anthropometry, and user behaviour into design	L4 (Analyse) Cognitive	SDG 11
CO5	Communicate design ideas through drawings, models, and diagrams	L3 (Apply) Cognitive + Psychomotor	SDG 4

Course Focus	Space to Place Transformation: Understanding how abstract space becomes a meaningful architectural place through design. Space → Place transformation Fundamentals of Spatial Organisation: Exploration of scale, proportion, hierarchy, enclosure, and spatial relationships. Basic spatial organisation and hierarchy Human-Centred Design: Integration of anthropometrics, user behaviour, and activity patterns into design.
---------------------	--


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 201: Architectural Design – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers' Assessment* 50%					
PC	AR	STUDIO	ARCH 201	ARCHITECTURAL DESIGN I	Max				250	250	500				
					Min				113	113	226			10	10

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

	Contextual Response: Sensitivity to site, climate, and surroundings in small-scale design interventions. Design Process & Iteration: Emphasis on observation, analysis, concept development, and iterative refinement. Integration of Knowledge: Linking design with construction, structures, environmental studies, and graphics. Integration of site + user + form Representation & Communication: Development of skills in drawings, diagrams, models, and visual presentation.
Experiential Learning:	The course adopts a learning-by-doing approach through site observations, behavioural studies, anthropometric exercises, spatial installations, model making, design charrettes, iterative studio explorations, peer reviews, and jury-based evaluations to develop an understanding of space, place, and architectural design processes.
Course Overview:	This course develops a foundational understanding of space, form, and place-making through studio-based design exercises. Beginning with small spatial compositions, students progressively engage with functional groupings of spaces, contextual responses, and iterative design development.

Teaching Pedagogy

Code	Method
T1	Studio-based experiential learning
T2	Demonstrations & design workshops
T3	Interactive lectures
T4	Desk critiques & mentoring
T5	Site observation & analysis
T6	Jury-based evaluation

Assessment Tools

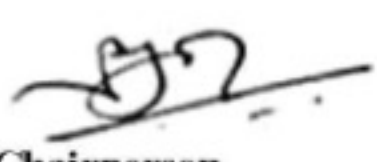
Code	Tool
AT2-1	Design exercises & studio work
AT2-2	Process drawings & sketchbook
AT2-3	Physical models
AT2-4	Mid jury
AT2-5	Final jury
AT2-6	Portfolio & viva

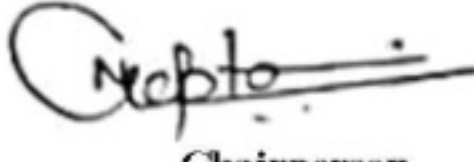
Course Information

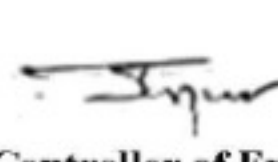
Component	Details
Prerequisites	Basic Design & Visual Arts (ARCH 101)
Mode of Delivery	Studio-based (Design Studio + Workshops + Site Exposure)

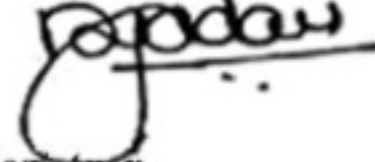
Course Contents:

Unit	Syllabus: Topic	Subtopic	Teaching Hours:	Assessment Tools
DESIGN :				
Examine the immediate built environment, understand its fundamental components, and assess their impact on the surroundings. Exercises relating personal experiences to behavioural needs and translating them into documented information that can serve as a basis for design. Problems focused on drafting and presentation skills in 2-D format. A systematic introduction to issues related to design, its components and space standards; design of a basic shelter; an architectural form with a specific function				


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 201: Architectural Design – I

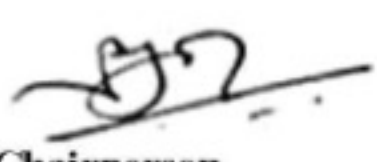
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers' Assessment* 50%					
PC	AR	STUDIO	ARCH 201	ARCHITECTURAL DESIGN I	Max				250	250	500				
					Min				113	113	226			10	10

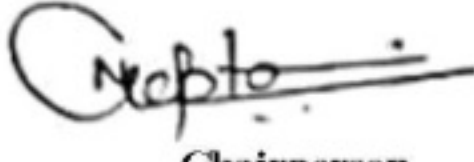
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

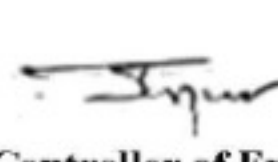
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

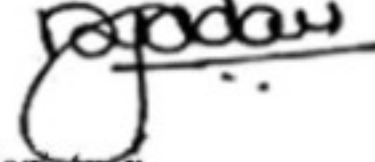
The concept of space & place; Placemaking through space, surfaces, envelopes, symbols, exploration with colours, textures, light, shades & darkness in response to culture, technology, time-place-human; Man- Nature Interface for generating space, and place.

I	Introduction to Design Studio	- Fundamentals of architectural design process - User activity analysis and anthropometrics - Study of building components - Behavioural and functional aspects - Introduction to form development through sketches and models - Case studies - Understanding space and place through vernacular and everyday environments - Observation and documentation of traditional settlement patterns - Introductory awareness of digital and AI-assisted visual references for design exploration	25hrs	AT2-1, AT2-2 (Design Exercises & Studio Work; Process Drawings & Sketchbook)
II	Exploratory Exercises (Learning by Doing)	- Study of natural and man-made environments - Human activity and spatial behaviour - Exploration of spatial qualities: enclosure, depth, orientation, volume - Tectonic characteristics: material, texture, form, surfaces - Understanding concepts and design principles - Exploration of spatial qualities through vernacular built examples - Study of climate-responsive traditional spaces - Comparative understanding of manual and AI-generated conceptual explorations	35hrs	AT2-1, AT2-2 (Design Exercises & Studio Work; Process Drawings & Sketchbook)
III	Studio-Based Iterative Design Process	- Introduction to program and site analysis - Built-up area, activity patterns, open space planning - Landscape, orientation, and climate response - Concept development and diagramming - Space-making exercises - Relationship between part and whole - Integration of site, structure, use, and concept. - Context analysis through site mapping and behavioural observation - Understanding traditional responses to climate, orientation, and open space - Introductory use of digital tools for site analysis, diagramming, and concept development	35hrs	AT2-2, AT2-3 (Process Drawings & Sketchbook; Physical Models)
IV	Design Resolution & Synthesis	- Hierarchy of spaces - Spatial quality and enclosure - Integration of form, function, and site response - Development of architectural language - Context-sensitive and culturally responsive design approaches	35hrs	AT2-3, AT2-4 (Physical Models; Mid Jury)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 201: Architectural Design – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment" 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment" 50%					
PC	AR	STUDIO	ARCH 201	ARCHITECTURAL DESIGN I	Max				250	250	500				
					Min				113	113	226			10	10

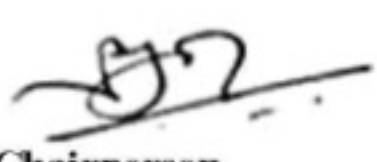
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

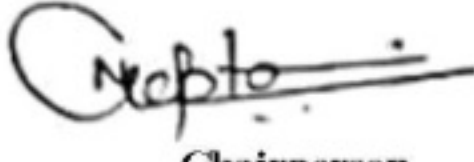
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

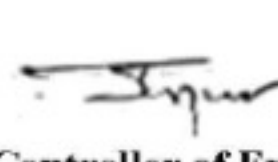
		- Integration of environmental considerations and passive design strategies - Evaluation of alternative design options through digital visualisation techniques - Refinement of design proposal		
V	Representation & Communication	- Plans, sections, elevations - Concept diagrams - Analytical drawings - Physical models - Graphic and technical presentation skills - Hybrid representation techniques (manual + digital) - Portfolio preparation and visual storytelling - Responsible use of AI-assisted tools in architectural communication and presentation	30hrs	AT2-4, AT2-5, AT2-6 (Mid Jury; Final Jury; Portfolio & Viva)
	Design Exercises (Indicative)	- Site: Level site up to 100 m² - DESIGN EXERCISE: Small-Scale Kiosk - Typology: Security cabin, ticket booth, milk booth, food stall, photocopy shop, flower/gift shop, book / Newspaper Stall, Food Stall, etc. - Complexity: Single/double user space - Focus: Functional planning, spatial hierarchy, human scale, context response - Human behaviour and activity mapping - Climate-responsive design considerations - Site-context integration - Exploration through sketches, diagrams, and physical models - Optional use of digital visualisation tools during concept development Emphasis: Transition from abstract design (ARCH 101) to functional architectural space-making.		

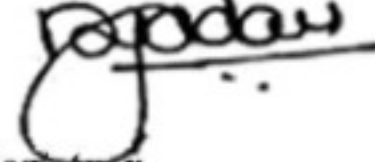
Course Delivery Framework

S. No.	Category	Component	Description
1	Sessional Work	Major Design Project	One comprehensive design problem
		Minor Exercises	Exploratory and time-bound exercises
		Studio Work	Continuous design development
		Physical Models	Mandatory model for a major project
		Portfolio	Compilation of all works
		External Evaluation	Jury + viva voce
2	Teaching Methodology	Studio Learning	Hands-on design exploration
		Critiques	Continuous feedback
		Workshops	Skill development
		Site Learning	Context understanding
3	Skills & Knowledge Transfer	Spatial Thinking	Understanding of space & hierarchy
		Design Thinking	Problem-solving ability
		Representation Skills	Drawings & models
		Contextual Understanding	Site-responsive design
		Integration Skills	Linking theory & design
4	Course Emphasis	Placemaking	Space to place transformation
		Human Scale	Anthropometric design


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 201: Architectural Design – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO		TOTAL MARKS	L	T		S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers' Assessment* 50%					
PC	AR	STUDIO	ARCH 201	ARCHITECTURAL DESIGN I	Max				250	250	500				
					Min				113	113	226			10	10

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

		Contextual Design	Site responsiveness
		Iterative Process	Learning through exploration
		Design Communication	Visual and physical expression

Additional Resources

Value addition to course content/ Skill enhancement content:

Studio-based exercises focusing on architectural form generation, spatial organisation, anthropometry, and design thinking.

- Exposure to design methodologies through case studies, precedent analysis, architectural journals, and interactive discussions.
- Workshops on conceptual sketching, architectural composition, model making, visual communication, and presentation techniques.
- Hands-on learning through space-making exercises, contextual response studies, and human-centred design explorations.
- Learning through design juries, collaborative studio work, site observations, and iterative design development processes.
- Online modules on architectural design, visual thinking, representation techniques, and spatial perception through NPTEL, SWAYAM, and international design platforms.
- Exposure to contemporary and traditional architectural approaches through lectures, documentaries, digital archives, and studio reviews.
- Development of critical thinking, design interpretation, and analytical skills through architectural discourse and reflective learning.

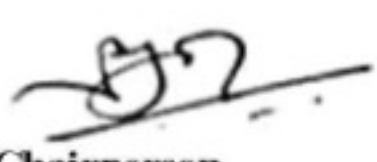
Recommended Online Platforms:

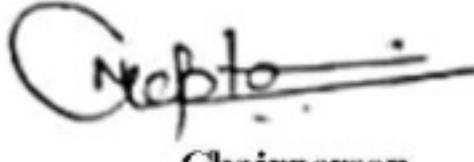
- NPTEL Architecture Courses
- SWAYAM Portal
- MIT OpenCourseWare – Architecture
- ArchDaily
- Dezeen

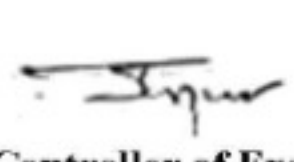
Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.

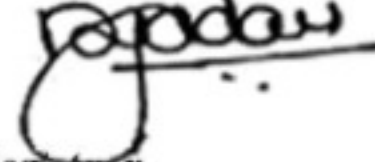
Suggested Readings:

Reference Books	A. Essential Readings Ching, F. D. K. (2007). Architecture: Form, Space, & Order. Wiley. Ching, F. D. K., & Eckler, J. F. (2013). Introduction to Architecture. Wiley. Architects, 2006. Neufert, E., Neufert, P., & Kister, J. (2012). Neufert. Oxford: Wiley-Blackwell. Time-Saver Standards for Building Types by Joseph De Chiara et al. Architectural Composition by Rob Krier Mike W. Lin, Drawing & Designing with Confidence – A step-by-step guide, John Wiley & Sons, USA, 1998. Architects' Sketchbooks by Will Jones B. Recommended Readings (Concept + Thinking Development) Design and Form – Johannes Itten Meiss, Pierre Von. Elements of Architecture: From Form to Place, E and FN Spon, London, 1992.; Mitchell, William R. Summerour: Architecture of Permanence, Scale, and Proportion. Atlanta, GA: Summerour & Associates, Architects, 2006. Neufert, E., Neufert, P., & Kister, J. (2012). Neufert. Oxford: Wiley-Blackwell Towards a New Architecture by Le Corbusier
-----------------	---


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav institute of Architecture
 Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
1ST YEAR / II Semester

ARCH 201: Architectural Design – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS		
						THEORY			STUDIO		TOTAL MARKS	L	T		S	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers' Assessment* 50%						
PC	AR	STUDIO	ARCH 201	ARCHITECTURAL DESIGN I	Max				250	250	500				10	10
					Min				113	113	226					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

	Pallasmaa, Juhani. The Thinking Hand: Existential and Embodied Wisdom in Architecture. Chichester, U.K.: Wiley, 2010. Visual Thinking by Rudolf Arnheim Design Methods by Kari Jormakka et al. C. Technical & Application References Time-Saver Standards for Building Types – Joseph De Chiara D. Representation & Making (Studio Support) Model Making: Conceive, Create and Convince by Annemarie Karssen & Bernhard Otte Design and Form by Johannes Itten How Buildings Work: The Natural Order of Architecture by Edward Allen E. Advanced / Exploratory (Optional for Curious Students) The Theory of Architecture: Concepts, Themes & Practices by Paul-Alan Johnson Kostof, Spiro. A History of Architecture: Settings and Rituals. New York: Oxford UP, 1985. ; Yacobi, Haim. Constructing a Sense of Place: Architecture and the Zionist Discourse. Aldershot, Hants, England: Ashgate, 2004. Transmaterial Next Constructing a Sense of Place
Suggested e-resources (Websites/e-books)	• NPTEL – Contemporary Architecture and Design • NPTEL – Structure Form and Architecture: The Synergy • NPTEL Architecture Courses Portal • SWAYAM Portal • MIT OpenCourseWare – Architecture • ArchDaily • Dezeen • STIRworld • RIBA Insights and Resources • The Architectural Review • Show It Better – Architectural graphics, portfolios, and design communication. • 30X40 Design Workshop – Design process, detailing, studio learning, and architectural thinking. • The Harvard GSD – Lectures, studios, and architectural discourse. • Louisiana Channel – Conversations with architects, artists, and thinkers. • Matter – Indian architecture, culture, and design discourse.

Course Articulation Matrix (Mapping of COs with POs)

Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	2	3	1	2	–	2	–	2	2	–	2	3	2	–
CO2	3	3	3	2	1	–	2	–	2	2	–	2	3	2	–
CO3	3	3	3	2	2	2	2	–	2	2	–	2	3	3	1
CO4	3	3	2	2	2	2	3	–	2	2	–	3	2	3	1
CO5	2	2	3	1	2	–	–	–	2	3	–	2	2	2	–

Assessment Scheme

Component	Method	COs Mapped	Weightage
Assignments	Design exercises	CO1, CO2	10%
Studio Work	Process drawings & models	CO1, CO3, CO4	20%

Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore

Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore

Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore

Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 201: Architectural Design – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	AR	STUDIO	ARCH 201	ARCHITECTURAL DESIGN I	Max				250	250	500				
					Min				113	113	226			10	10

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

Mid Jury	Interim review	CO2, CO3, CO4	20%
Final Jury	Final design evaluation	CO1, CO3, CO4, CO5	30%
Portfolio	Compilation & presentation	CO2, CO5	20%

Evaluation Rubrics (Studio/Design)

Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
Concept Development	Strong, innovative idea	Clear idea	Basic idea	Weak concept
Design Process	Iterative & exploratory	Adequate process	Limited process	No process
Spatial Quality	Strong spatial clarity	Good organisation	Basic understanding	Poor resolution
Representation	Highly expressive	Clear drawings/models	Basic clarity	Poor representation
Innovation	Highly creative	Some creativity	Limited	None

Studio Components & Suggested Work

Component	Studio Work	Output Format
User & Activity Analysis	Anthropometry, a behavioural study	Diagrams + notes (A3/A2)
Site Analysis	Site context, climate, orientation	Site analysis sheet (A2)
Concept Development	Idea generation, zoning	Concept diagrams (A2)
Space Organisation	Functional relationships	Bubble diagrams + plans
Exploratory Models	Form and spatial studies	Study models
Design Development	Iterative drawings	Plans, sections, elevations
Final Design Proposal	Resolved design	A2 sheets + model
Representation	Drawings + graphics	Portfolio sheets
Model Making	Physical model (mandatory)	Final + process models
Review Process	Jury discussions	Stage-wise submissions

Design Exercises (Indicative)

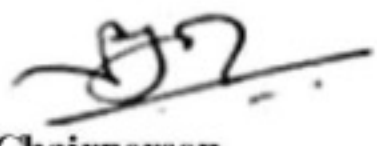
- **Single / Double-user shelter**
- **Small-scale kiosk design** (Security cabin, milk booth, ticket booth, food stall, etc.)
- **Site:** Up to 100 m² (level site)

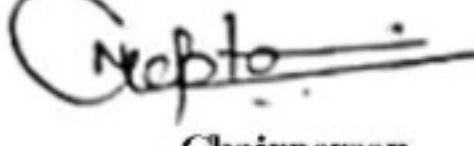
Submission Structure (Studio-Based)

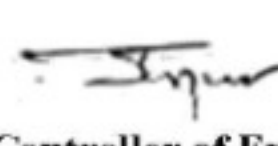
- 1 Major Design Project
- 1 Minor Design Exercise
- Concept + Analysis Sheets (3–5)
- Final Drawings (Plans, Sections, Elevations)
- Process + Final Models (Mandatory)
- Time-bound studio exercises
- Final Portfolio + Jury/Viva

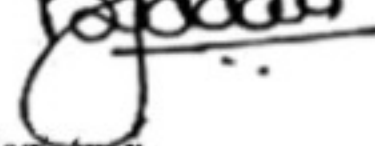
Studio Nature

- Fully **studio-based and process-driven**
- Emphasis on **learning by doing and iteration**


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav institute of Architecture
Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
1ST YEAR / II Semester

ARCH 203: Building Material & Construction – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME						L	T	S	CREDITS	
						THEORY			STUDIO							TOTAL MARKS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%						
BS& AE	TE	THEORY CUM STUDIO	ARCH 203	BUILDING MATERIAL & CONSTRUCTION - II	Max	60	30	30	15	15	150	1		2	3	
					Min	27	14	14	7	7	69					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

ARCH 203: Building Material & Construction – II

Course Educational Objectives (CEOs):

S. No.	CEO	Bloom's Level	Domain
CEO1	To develop an understanding of load-bearing construction systems and structural logic	Understand (L2)	Cognitive
CEO2	To study foundation systems and substructure principles	Understand (L2)	Cognitive
CEO3	To analyse material behaviour (lime, cement, mortar, timber)	Apply (L3)	Cognitive
CEO4	To develop skills in timber construction and joinery detailing	Apply (L3)	Cognitive + Psychomotor

Course Alignment With UNSDG

This course supports:

- SDG 9: Industry, Innovation, and Infrastructure
- SDG 11: Sustainable Cities and Communities
- SDG 12: Responsible Consumption and Production

By promoting efficient construction systems, responsible material use, and durable building practices.

Course Alignment with IKS and AI:

This course promotes awareness of indigenous construction knowledge by studying traditional load-bearing systems, vernacular foundation practices, regional building techniques, traditional carpentry and joinery methods, and the use of locally available materials such as stone, timber, lime, and earth. Students learn how traditional construction systems evolved in response to climate, materials, craftsmanship, and cultural practices, fostering appreciation for sustainable, context-responsive building traditions.

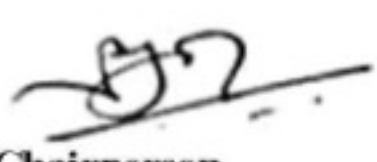
This course introduces students to AI-assisted and digital tools used for structural understanding, material selection, construction detailing, and technical documentation. Students are exposed to emerging technologies that support conceptual structural simulations, material databases, digital drafting, CAD/BIM workflows, and construction visualisation while developing awareness of the responsible and critical use of technology in construction planning and documentation.

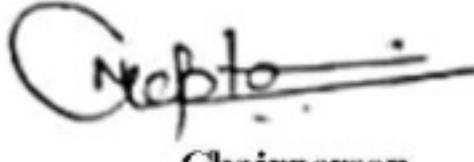
Course outcomes (COs):

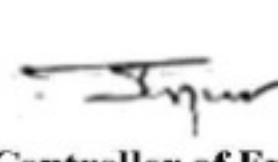
At the end of the course, students will be able to:

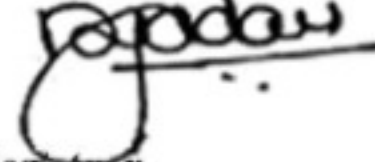
CO	Outcome	Bloom	SDG
CO1	Explain load-bearing construction systems and structural load transfer	L2 (Understand) Cognitive	SDG 9, 11
CO2	Analyse substructure systems, including soil behaviour and foundations	L4 (Analyse) Cognitive	SDG 9
CO3	Evaluate material behaviour (lime, cement, mortar, timber) in construction	L4 (Analyse) Cognitive	SDG 12
CO4	Illustrate carpentry joinery and timber construction systems in detail	L3 (Apply) Cognitive + Psychomotor	SDG 11
CO5	Prepare integrated construction drawings of load-bearing structures	L3 (Apply) Cognitive + Psychomotor	SDG 9, 11

Course Focus	• Load-bearing construction systems and structural logic • Foundations and sub-structure understanding • Material behaviour: lime, cement, mortar, timber • Carpentry and timber joinery basics
---------------------	--


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 203: Building Material & Construction – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO						
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS	L	T	S	CREDITS
BS&AE	TE	THEORY CUM STUDIO	ARCH 203	BUILDING MATERIAL & CONSTRUCTION - II	Max	60	30	30	30		150	1		2	3
					Min	27	14	14	14		69				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	- Construction detailing from foundation to roof - Integration of theory with site practice - Development of technical drawing and execution skills
Experiential Learning:	The course incorporates site visits, construction yard exercises, material handling workshops, masonry and joinery demonstrations, measured documentation, model-making, and technical drawing exercises to develop an understanding of construction systems through direct observation and hands-on learning.
Course Overview:	- This course explores the construction systems of load-bearing structures from foundation to roof. It emphasises substructure systems, material properties, and timber joinery techniques. Students develop an understanding of how materials behave structurally and how construction elements interrelate within a building system. - The course integrates theoretical inputs with site visits, yard exercises, and detailed drafting work.

Teaching Pedagogy

Code	Method
T1	Lectures & interactive teaching
T2	Drawing studio exercises
T3	Demonstrations & workshops
T4	Site visits & field exposure
T5	Case studies & discussions
T6	Viva & review sessions

Assessment Tools

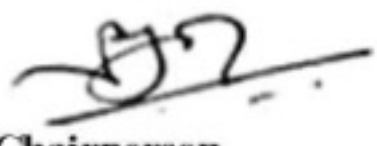
Code	Tool
AT1-1	Written assignments/quizzes
AT1-2	Drawing sheets
AT1-3	Construction yard exercises
AT1-4	Midterm exam
AT1-5	Final exam
AT1-6	Viva voce & site report

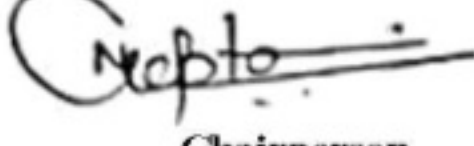
Course Information

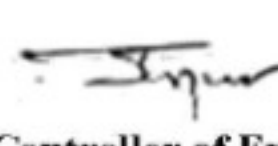
Component	Details
Prerequisites	ARCH 103: Building Materials & Construction – I
Mode of Delivery	Theory cum Studio (Lectures + Drawing Studio + Site Exposure + Yard Work)

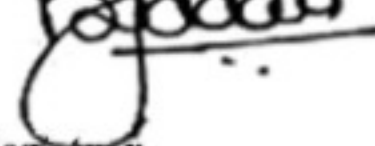
Course Contents:

Unit	Syllabus: Topic	Subtopic	Teaching Hours :	Assessment Tools
I	Load-bearing construction system	- Structural principles of load-bearing buildings - Load transfer mechanism: Roof → Wall → Foundation → Soil - Components: foundations, plinth, walls, openings, lintels, arches, piers - Masonry wall systems and structural stability	12 hrs.	AT1-1, AT1-2 (Written Assignments/ Quizzes)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

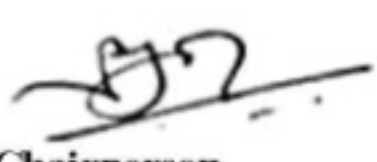
ARCH 203: Building Material & Construction – II

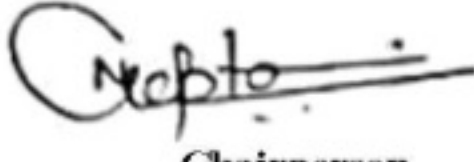
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO			L	T		S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
BS&AE	TE	THEORY CUM STUDIO	ARCH 203	BUILDING MATERIAL & CONSTRUCTION - II	Max	60	30	30	30		150	1		2	3
					Min	27	14	14	14		69				

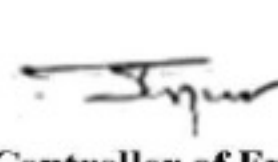
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

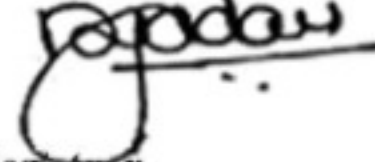
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		• Introduction to foundation types (overview) • Vernacular load-bearing systems • Load-bearing vs framed structures • Masonry behaviour and common defects • Digital visualisation of load transfer		; Drawin g Sheets)
II	Sub-Structure System Foundations: Shallow & Deep	• Soil basics and safe bearing capacity • General principles of foundation design • Shallow foundations: ◦ Strip foundation ◦ Isolated footing ◦ Combined footing ◦ Raft foundation • Introduction to deep foundations: ◦ Pile foundations ◦ Grillage foundations ◦ Caisson foundations • Damp-proof course and plinth protection • Soil investigation and foundation selection • Indigenous foundation practices • Foundation failures and remedial measures • Digital tools for foundation visualisation	16 hrs.	AT1-2, AT1-3 (Drawin g Sheets; Constr uction Yard Exercis es)
III	Building Materials and Properties	• Lime ◦ Types, manufacturing process, properties, uses • Cement ◦ Composition, grades, properties ◦ Manufacturing process (wet & dry methods) ◦ Storage and handling • Mortar ◦ Types: lime, cement, concrete, mud, surkhi ◦ Proportioning and preparation ◦ Selection for different applications • Wood & Timber ◦ Classification and varieties ◦ Defects and decay ◦ Seasoning and preservation ◦ Structural properties and use ◦ The behaviour of wood, woodworking, and tools. • Lime in traditional and heritage construction • Sustainable material selection and embodied energy • Material durability and quality control • Digital material databases	10 hrs.	AT1-1, AT1-2 (Writte n Assign ments/ Quizze s; Drawin g Sheets)
IV	Carpentry Joinery Details	• Behaviour of wood as a structural material • Tools and basic carpentry practices • Carpentry and joinery: Timber joints: ◦ Mortise and tenon ◦ Dovetail ◦ Lap joints ◦ Scarf joints • Joinery under different loading conditions • Frames in masonry openings	7hrs	AT1-2, AT1-3 (Drawing Sheets; Construction Yard Exercises)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 203: Building Material & Construction – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
BS&AE	TE	THEORY CUM STUDIO	ARCH 203	BUILDING MATERIAL & CONSTRUCTION - II	Max	60	30	30	30		150	1		2	3
					Min	27	14	14	14		69				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

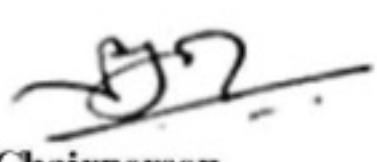
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

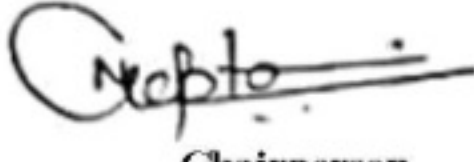
		Understanding of frame structure concerning the specific material – • Traditional Indian timber joinery • Timber frame and truss systems • Joinery behaviour under loading • Digital detailing methods		
V	Carpentry Details	• Timber doors and windows, opening construction • Frames and shutters • Staircase basics (timber stairs) • Timber partitions • Timber floors and floor systems • Timber roof systems and coverings • Traditional timber roofs and floors • Climate-responsive timber construction • CAD/BIM-based detailing awareness • Site documentation of timber construction	7hrs	AT1-2 (Drawing Sheets)

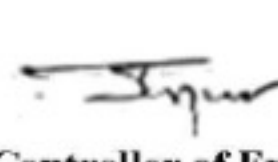
Course Delivery Framework

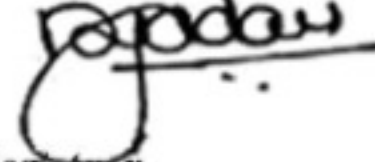
S. No.	Category	Component	Description
1	Sessional Work	Drawing Sheets	12–15 A1 sheets
		Studio Exercises	Regular graphical work
		Perspective Study	Architectural space drawing
		Sciography Work	Shadow studies
		Sketchbook	Continuous freehand work
		Digital Exercise	Basic modelling/view generation
		Portfolio	Compilation of all work
2	Evaluation	Viva	External assessment
3	Teaching	Demonstrations	Guided drawing methods
		Studio Practice	Hands-on work
		Visual Training	Spatial exercises
		Digital Exposure	Intro to tools
4	Skills & Knowledge Transfer	Visualisation	Advanced 3D understanding
		Representation	Perspective and shadow techniques
		Drafting	Accurate graphical construction
		Communication	Spatial expression
		Digital Awareness	Intro to modelling tools
5	Course Emphasis	Spatial Understanding	Depth and perception
		Representation	Perspective and sciography
		Integration	Link with the design studio
		Accuracy	Precision in drawing
		Hybrid Skills	Manual + digital

Additional Resources


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 203: Building Material & Construction – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME						L	T	S	CREDITS
						THEORY			STUDIO		TOTAL MARKS				
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
BS&AE	TE	THEORY CUM STUDIO	ARCH 203	BUILDING MATERIAL & CONSTRUCTION - II	Max	60	30	30	30		150	1		2	3
					Min	27	14	14	14		69				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Value addition to course content/ Skill enhancement content:

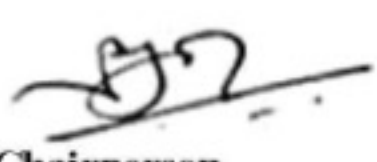
Workshops on traditional and contemporary building materials, construction systems, and material applications in architecture.

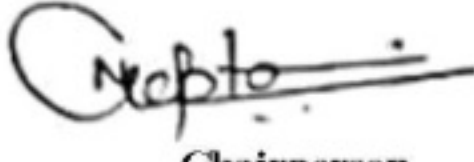
- Exposure to brick masonry, stone construction, mud architecture, timber systems, and alternative building technologies through hands-on exercises and demonstrations.
- Site visits to construction sites, material production units, heritage structures, and vernacular settlements for experiential understanding of materials and construction practices.
- Hands-on exercises in material identification, construction detailing, model making, and preparation of construction drawings.
- Learning through case studies of vernacular architecture, sustainable construction systems, and climate-responsive building techniques.
- Exposure to material innovation, eco-friendly construction systems, and emerging technologies through architectural journals, exhibitions, and digital platforms.
- Online learning modules on building materials, construction technology, structural systems, and sustainable practices through NPTEL, SWAYAM, and technical education portals.
- Integration of indigenous knowledge systems, craftsmanship, and regional building traditions within architectural construction studies.

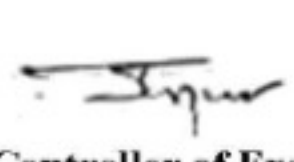
Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.

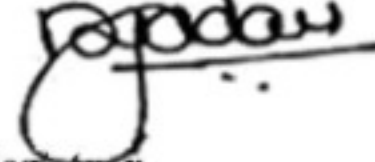
Suggested Readings:

Reference Books	Agarwal, A. (1981). <i>Mud: The potential of earth-based materials for third world housing</i>. International Institute for Environment and Development (IIED). Agrawal, B. K. (2013). <i>Introduction to engineering materials</i>. Tata McGraw-Hill Education. Barry, R. (1999). <i>Construction of buildings</i> (Vol. 1). Affiliated East-West Press. Barry, R. (1999). <i>Construction of buildings</i> (Vol. 2, 5th ed.). Affiliated East-West Press. Beylerian, G. M. (2005). <i>Material connection: The global resource of new and innovative materials for architects, artists and designers</i>. Thames & Hudson. Bhavikatti, S. S. (2013). <i>Building construction</i>. Vikas Publishing House. Bindra, S. P., & Arora, S. P. (2000). <i>Building construction: Planning techniques and methods of construction</i> (19th ed.). Dhanpat Rai Publications. Ching, F. D. K. (2014). <i>Building construction illustrated</i> (5th ed.). John Wiley & Sons. Ching, F. D. K. (2014). <i>Building structures illustrated</i>. John Wiley & Sons. Chudley, R., & Greeno, R. (2010). <i>Building construction handbook</i> (8th ed.). Butterworth-Heinemann. Duggal, S. K. (2012). <i>Building materials</i>. New Age International. Gambhir, M. L. (2011). <i>Building materials: Products, properties and systems</i>. Tata McGraw-Hill. HUDCO. (1989). <i>All you wanted to know about soil-stabilised mud blocks</i>. HUDCO. Parmar, V. S. (2001). <i>Wood carvings of Gujarat</i>. Publications Division, Government of India. Patel, N. (2010). <i>Stone buildings of Gujarat</i>. CEPT University. Punmia, B. C. (2008). <i>Building construction</i>. Laxmi Publications. Rangwala, S. C. (2014). <i>Building construction</i>. Charotar Publishing House. Rangwala, S. C. (2014). <i>Engineering materials: Material science</i>. Charotar Publishing House. Salgado, R. (2011). <i>The engineering of foundations</i>. Tata McGraw-Hill Education. Salvadori, M. (1980). <i>Why buildings stand up: The strength of architecture</i>. W. W. Norton & Company. Schodek, D. L. (2014). <i>Structures</i>. PHI Learning. Singh, G. (2012). <i>Building construction and materials</i>. Standard Book House. Soni, S. K. (2013). <i>Building materials and construction</i>. S. K. Kataria & Sons.
------------------------	---


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 203: Building Material & Construction – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME						L	T	S	CREDITS
						THEORY			STUDIO		TOTAL MARKS				
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
BS&AE	TE	THEORY CUM STUDIO	ARCH 203	BUILDING MATERIAL & CONSTRUCTION - II	Max	60	30	30	30		150	1		2	3
					Min	27	14	14	14		69				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Suggested e- resources (Websites/e-books)	• NPTEL – Building Materials and Construction • NPTEL – Construction Materials and Practices • SWAYAM Portal • National Building Code of India (BIS) • HUDCO Knowledge Resources • ArchDaily – Construction and Materials • Dezeen – Architecture and Construction Technology • Detail Magazine – Architectural detailing, façade systems, and construction assemblies. • The Constructor – Technical articles on construction systems, materials, and site practices. • The B1M – Construction technologies, engineering systems, and global infrastructure projects. • Iris Ceramica Group – Material innovations, surfaces, and architectural applications. • Design Docs – Architecture, material studies, and construction-based storytelling. • Architecture Foundation – Architectural education, public lectures, and discussions on the built environment. • Resources for Students and Teachers of Architecture by Ar. Shrikanth Bhate • Internet Archive – Digital repository of construction manuals, material references, and architectural books.
--	---

Course Articulation Matrix (Mapping of COs with POs)

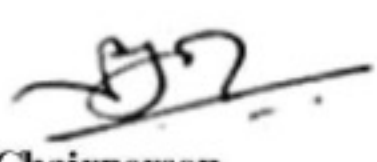
Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	3	2	2	–	–	2	–	1	2	–	1	3	2	–
CO2	3	3	2	2	–	–	2	–	1	2	–	1	3	2	–
CO3	3	2	2	2	–	–	3	–	1	2	–	1	2	3	1
CO4	2	2	2	1	–	–	2	–	1	3	–	1	2	3	1
CO5	3	2	3	1	2	–	2	–	1	3	–	1	3	3	1

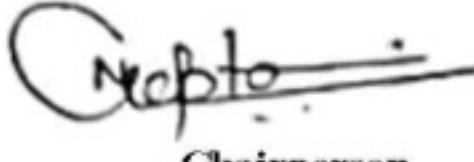
Assessment Scheme

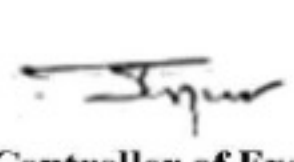
Component	Method	COs Mapped	Weightage
Assignments / Quizzes	Material studies	CO1, CO2, CO3	10%
Drawing Sheets	Construction detailing	CO2, CO4, CO5	30%
Yard Work	Joinery exercises	CO3, CO4	10%
Mid-Sem Exam	Written + drawing	CO1, CO2, CO3	20%
Final Exam / Jury	Comprehensive	CO1–CO5	20%
Field Report	Site documentation	CO2, CO3	10%

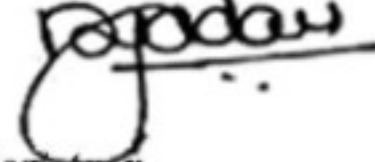
Evaluation Rubrics

Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
Material Understanding	Strong knowledge	Minor gaps	Basic	Weak
Construction Detailing	Accurate & precise	Minor errors	Basic	Incorrect
Drafting Skills	Clear, precise	Good	Acceptable	Poor
Structural Understanding	Clear load logic	General understanding	Limited	No clarity
Practical Skills	Skilled execution	Good	Basic	Poor
Documentation	Complete & organised	Adequate	Partial	Missing


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 203: Building Material & Construction – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
BS&AE	TE	THEORY CUM STUDIO	ARCH 203	BUILDING MATERIAL & CONSTRUCTION - II	Max	60	30	30	30		150	1		2	3
					Min	27	14	14	14		69				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

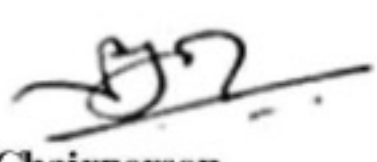
Integration	Strong linkage	Moderate	Limited	None
-------------	----------------	----------	---------	------

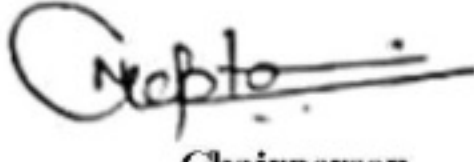
Course Work Components (Condensed)

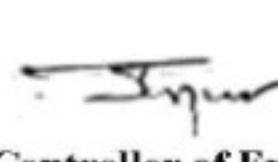
Sr. No.	Component	Description
1	Construction Drawings	12–15 A1 sheets covering foundations, DPC, walls, roofs, and joinery
2	Field Log Book & Site Visits	Detailed documentation of construction stages and systems
3	Material Study & Case Study	Advanced material study (lime, cement, timber) + building case
4	Construction Exercises	Yard work, including masonry and basic carpentry/joinery
5	Measured Drawings & Sketchbook	Detailed measurement + analytical sketches
6	Process Documentation & Rate Analysis	Construction sequencing + basic cost understanding
7	Viva Voce & Reflection	Technical evaluation + critical learning summary

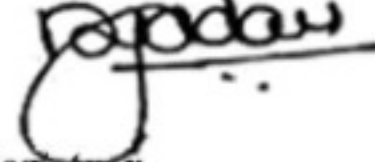
Indicative Construction Drawing Sheets

Sheet No.	Title	Scale	Description
1	Load-Bearing System	NTS	Load transfer diagrams
2	Foundation Systems	1:20	Strip, isolated, combined, raft
3	Deep Foundations (Intro)	NTS / 1:50	Pile, caisson (diagrammatic)
4	Plinth & DPC Details	1:10	Advanced plinth and damp-proofing
5	Wall Sections (Detailed)	1:20	Multi-layered wall systems
6	Openings with Joinery	1:10	Frame, shutter, fixing
7	Lintels & Arches	1:10	RCC lintels and arches
8	Timber Joinery Details	1:5	Mortise-and-tenon, dovetail, etc.
9	Timber Doors & Windows	1:10	Frame and shutter
10	Timber Floors & Partitions	1:20	Floor and partition systems
11	Timber Roof Systems	1:20	Trusses and components
12–15	Complete Building Section	1:50 (section) + 1:20 / 1:10 (details)	Full load-bearing structure


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 204 Architectural Graphics & Drawing – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					TOTAL MARKS
PC	SK	STUDIO	ARCH 204	ARCHITECTURAL GRAPHICS & DRAWING -II	Max				75	75	150				
					Min				34	34	68			3	3

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

ARCH 204 Architectural Graphics & Drawing – II

Course Educational Objectives (CEOs):

S. No.	Course Educational Objective (CEO)	Bloom's Level	Domain
CEO1	Develop advanced skills in three-dimensional visualisation and representation.	L3 (Apply)	Cognitive + Psychomotor
CEO2	Introduce perspective and sciography as architectural communication tools	L3 (Apply)	Cognitive
CEO3	Strengthen manual and digital representation of architectural form and space.	L3 (Apply)	Psychomotor
CEO4	Integrate graphical skills with design studio and construction subjects	L4 (Analyse)	Cognitive

Course Alignment with UNSDG

Supports **SDG 4, SDG 9, and SDG 11** through the development of advanced visualisation, representation skills, and integration with design and built environment understanding.

Course Alignment with IKS and AI:

This course incorporates traditional Indian geometric knowledge systems, proportional canons, indigenous methods of visual representation, and vernacular construction-based drawing practices. Students are introduced to the role of geometry, light, shadow, and perspective in historical architectural traditions, fostering an appreciation of culturally rooted visualisation techniques and spatial understanding.

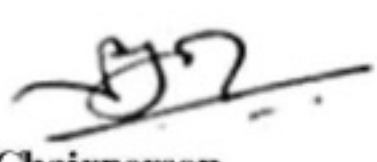
This course provides an introductory exposure to digital and AI-assisted visualisation methods used in architectural graphics and representation. Students develop awareness of contemporary digital modelling, shadow analysis, perspective generation, and visualisation tools while strengthening the relationship between manual drafting skills and emerging computational workflows.

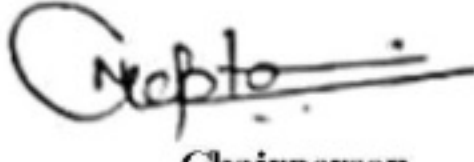
Course outcomes (COs):

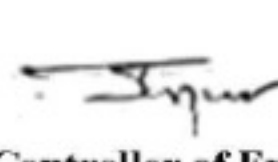
At the end of the course, students will be able to:

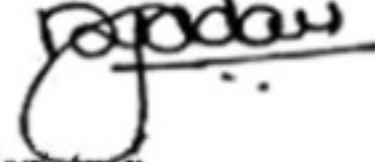
CO	Outcome	Bloom	SDG
CO1	Construct complex solid geometries and surface developments	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO2	Apply sciography principles to architectural elements on flat and curved surfaces.	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO3	Draw one-, two-, and three-point perspectives of architectural forms and spaces using standard methods.	L3 (Apply) Cognitive + Psychomotor	SDG 9
CO4	Demonstrate 3D visualisation through manual drawing	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO5	Use basic digital tools for architectural visualisation	L3 (Apply) Cognitive + Psychomotor	SDG 9

Course Focus	- Advanced spatial visualisation and 3D thinking - Perspective drawing as a communication tool - Understanding light, shadow, and depth - Integration of manual and digital representation
Experiential Learning:	Students engage in hands-on learning through studio-based drawing exercises, measured drawings, outdoor sketching, model-making, shadow observation studies, and constructing architectural forms and spaces in perspective. Learning is reinforced through demonstrations, visualisation exercises, documentation of built environments, graphical analysis, portfolio development, and introductory digital


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 204 Architectural Graphics & Drawing – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	SK	STUDIO	ARCH 204	ARCHITECTURAL GRAPHICS & DRAWING -II	Max				75	75	150				
					Min				34	34	68			3	3

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	representation workflows. The course emphasises learning by doing, enabling students to develop spatial understanding, observational skills, graphical accuracy, and architectural communication through continuous practice, experimentation, and reflection.
Course Overview:	This course advances graphical skills from basic orthographic projection (covered in Graphics I) toward spatial and experiential representation. The course emphasises perspective drawing, sciography, surface development, and three-dimensional visualisation of architectural elements. Students develop the ability to represent both simple and complex geometrical forms and architectural spaces through manual drafting. Students learn to visually interpret and represent architectural forms and spaces through accurate geometric construction and freehand techniques, strengthening their integration with design studio exercises.

Teaching Pedagogy

Code	Method
T1	Demonstration-based teaching
T2	Step-by-step construction methods
T3	Studio-based drawing exercises
T4	Visualisation and spatial training
T5	Sketching workshops & outdoor studies
T6	Digital tool demonstrations

Assessment Tools

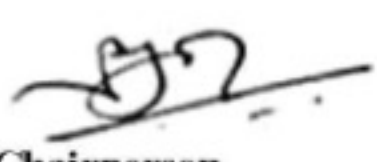
Code	Tool
AT2-1	Surface development sheets
AT2-2	Interpenetration drawings
AT2-3	Sciography sheets
AT2-4	Perspective drawings
AT2-5	Sketchbook
AT2-6	Portfolio submission
AT2-7	Viva voce

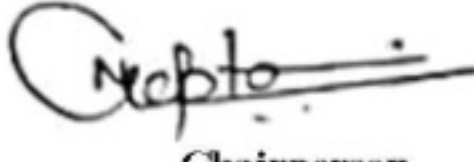
Course Information

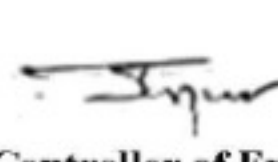
Component	Details
Prerequisites	ARCH 104: Architectural Graphics & Drawing – I
Mode of Delivery	Studio-based (Offline/Blended: demonstrations, drafting sessions, sketching, digital introduction)

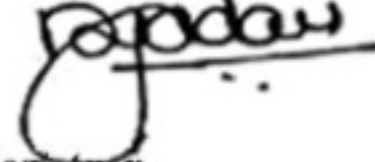
Course Contents:

Unit	Syllabus: Topic	Subtopic	Teaching Hours:	Assessment Tools
I	Development of Surfaces	- Development of prisms, pyramids, cylinders, and cones - Surface unfolding techniques - Application of surface development in architectural components (ducts, roofs, sheet materials) - Introduction to digital surface	10 hrs	AT2-1 (Surface Development Sheets)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

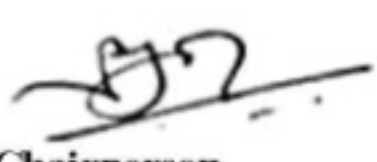
ARCH 204 Architectural Graphics & Drawing – II

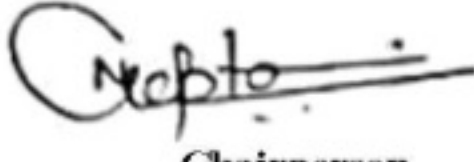
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	SK	STUDIO	ARCH 204	ARCHITECTURAL GRAPHICS & DRAWING -II	Max				75	75	150				
					Min				34	34	68			3	3

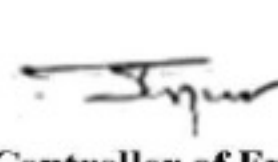
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

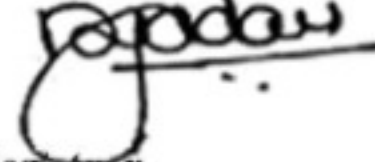
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		unfolding workflows		
II	Interpenetration of Solids	- Intersection of geometric solids - Composite forms - Application in architectural junctions and massing - Architectural applications in skylights, vault intersections, domes, and service junctions - Exploration of complex forms through physical and digital models	8hrs	AT2-2 (Interpenetration Drawings)
III	Sciography (Shades and Shadows)	- Principles of light and shadow - Shadows on horizontal, vertical, and inclined planes - Shadows on curved surfaces - Sciography of architectural elements (walls, steps, projections, roofs) - Geometrical drawing of special curves - Sun-path understanding and architectural relevance of shadows - Introduction to digital shadow studies and environmental visualisation	10 hrs.	AT2-3 (Sciography Sheets)
IV	Perspective Drawing	- Theory of perspective projection - Station point, picture plane, ground line - One-point perspective - Two-point perspective - Three-point perspective - Measured perspective methods - Interior and exterior spatial perspectives - Perspective representation of small architectural spaces and studio projects - Human figures, furniture, landscape elements, and entourage in perspectives - Introduction to digital perspective generation methods	10hrs.	AT2-4 (Perspective Drawings)
V	Allied Representation Techniques	- Freehand sketching for architectural visualisation - Outdoor sketching and spatial studies - Introduction to visualisation software (SketchUp / Rhino or equivalent) - Basic model making for spatial understanding - Measured sketching of built environments - Digital sketching and tablet-based	10 hrs.	AT2-5 (Sketchbook)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 204 Architectural Graphics & Drawing – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	SK	STUDIO	ARCH 204	ARCHITECTURAL GRAPHICS & DRAWING -II	Max				75	75	150				
					Min				34	34	68			3	3

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		representation (introductory level)		
		AI-assisted visualisation awareness and ethical use in architectural representation		

Course Delivery Framework

S. No.	Category	Component	Description
1	Sessional Work	Drawing Sheets	12–15 A1 sheets
		Studio Exercises	Regular graphical work
		Perspective Study	Architectural space drawing
		Sciography Work	Shadow studies
		Sketchbook	Continuous freehand work
		Digital Exercise	Basic modelling/view generation
		Portfolio	Compilation of all work
2	Evaluation	Viva	External assessment
3	Teaching	Demonstrations	Guided drawing methods
		Studio Practice	Hands-on work
		Visual Training	Spatial exercises
		Digital Exposure	Intro to tools
4	Skills & Knowledge Transfer	Visualisation	Advanced 3D understanding
		Representation	Perspective and shadow techniques
		Drafting	Accurate graphical construction
		Communication	Spatial expression
		Digital Awareness	Intro to modelling tools
5	Course Emphasis	Focus Area	Description
		Spatial Understanding	Depth and perception
		Representation	Perspective and sciography
		Integration	Link with the design studio
		Accuracy	Precision in drawing

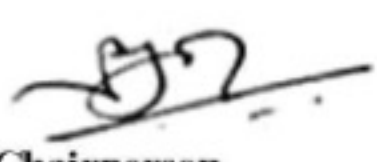
Additional Resources

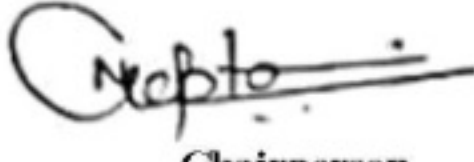
Value addition to course content/ Skill enhancement content:

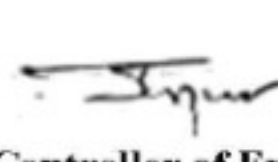
Workshops on architectural drafting, measured drawing, perspective construction, sciography, and visual communication techniques.

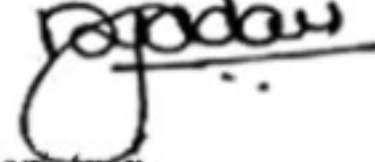
- Exposure to manual and digital representation methods through studio exercises, drafting assignments, and case-study-based learning.
- Hands-on exercises in orthographic projections, building drawings, rendering, lettering, shading, and presentation techniques.
- Learning through measured drawing exercises, live sketching sessions, graphical analysis, and portfolio preparation.
- Training in architectural visualisation through perspective drawing, model interpretation, and spatial representation exercises.
- Exposure to CAD-based drafting workflows, architectural documentation standards, and graphical conventions used in professional practice.
- Online learning modules on architectural graphics, drafting standards, visual representation, and presentation methods through NPTEL, SWAYAM, and digital learning platforms.
- Development of analytical and visual communication skills through studio critiques, design juries, and collaborative exercises.

Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 204 Architectural Graphics & Drawing – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	SK	STUDIO	ARCH 204	ARCHITECTURAL GRAPHICS & DRAWING -II	Max				75	75	150				
					Min				34	34	68			3	3

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Suggested Readings:

Reference Books	Ching, F. D. K. (2015). Architectural graphics (6th ed.). Wiley. Ching, F. D. K., & Juroszek, S. P. (2010). Design drawing (2nd ed.). Wiley. Farrelly, L. (2008). Representational techniques. AVA Publishing. Jefferis, A., & Madsen, D. A. (2017). Architectural drafting and design. Cengage Learning. Jensen, C. (2012). Engineering drawing and design. McGraw-Hill. Mulik, S. (1999). Perspective and sciography. Allied Publishers. Obermeyer, T. (2011). Architectural drafting and design: Residential and commercial. McGraw-Hill. Shah, M. G., Kale, C. M., & Patki, S. Y. (2000). Building drawing: With an integrated approach to the built environment (7th ed.). Tata McGraw-Hill.
Suggested e- resources (Websites/e-books)	• NPTEL – Engineering and Architectural Graphics • NPTEL – Architectural Representation and Drafting Resources • SWAYAM Portal • MIT OpenCourseWare – Architecture and Representation • ArchDaily – Architectural drawings, representation methods, and drafting references. • Dezeen – Contemporary architecture, graphics, and visual communication references. • Show It Better – Architectural graphics, portfolios, rendering, and presentation methods. • 30X40 Design Workshop – Architectural sketching, workflows, detailing, and studio practices. • Arquí9 Visualisation – Architectural visualisation and rendering workflows. • Blessed Arch – Tutorials on drafting, rendering, and architectural visualisation. • James Hamilton Architects – Architectural workflows, detailing, and design communication. • RIBApx – Architectural drawings, archival sketches, and graphic references. • Internet Archive – Digital repository of drafting manuals, drawing references, and architectural books.

Course Articulation Matrix (Mapping of COs with POs)

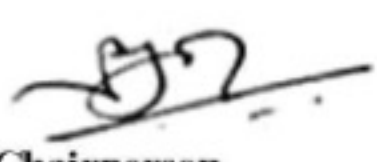
Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	3	2	2	–	–	2	–	1	2	–	1	3	2	–
CO2	3	3	2	2	–	–	2	–	1	2	–	1	3	2	–
CO3	3	2	3	2	–	–	3	–	1	2	–	1	2	3	1
CO4	2	2	2	1	–	–	2	–	1	3	–	1	2	3	1
CO5	3	2	3	1	2	–	2	–	1	3	–	1	3	3	1

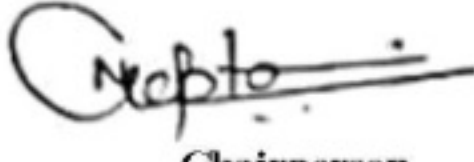
Course Work Components (Condensed)

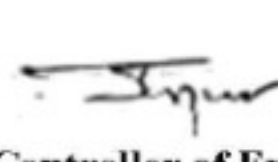
S. No.	Component	Description
1	Drawing Sheets	12–15 A1 sheets
2	Perspective Study	Interior/exterior space
3	Sciography Sheets	Architectural shadow studies
4	Sketchbook	Mandatory
5	Digital Exercise	Basic visualisation
6	Portfolio	Compilation
7	Viva Voce	Final evaluation

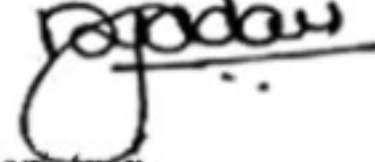
Drawing Sheets with Scales

Sheet No.	Title	Scale	Description
-----------	-------	-------	-------------


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

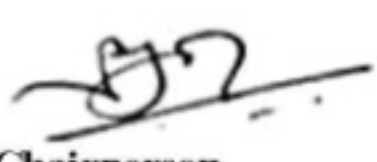
ARCH 204 Architectural Graphics & Drawing – II

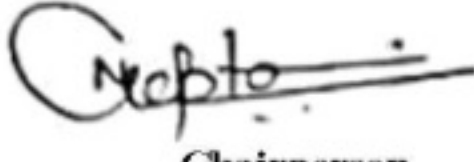
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	SK	STUDIO	ARCH 204	ARCHITECTURAL GRAPHICS & DRAWING -II	Max				75	75	150				
					Min				34	34	68			3	3

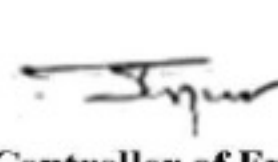
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

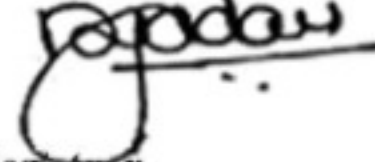
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

1	Surface Development	NTS	Prisms/pyramids
2	Surface Development (Curved)	NTS	Cylinders/cones
3	Interpenetration – Basic	NTS	Solid intersections
4	Interpenetration – Complex	NTS	Composite forms
5	Sciography – Planes	NTS	Horizontal/vertical shadows
6	Sciography – Curved	NTS	Cylindrical shadows
7	Sciography – Architectural	NTS	Building elements
8	Perspective – One Point	NTS	Interior view
9	Perspective – Two Point	NTS	Exterior view
10	Perspective – Three Point	NTS	Advanced view
11	Measured Perspective	1:50	Small space
12	Freehand Sketch Sheet	NTS	Spatial sketches
13	Digital Output	–	Basic model views
14	Composite Sheet	Mixed	Perspective + sciography


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 205: History of Architecture & Culture – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								L	T	S	CREDITS
						THEORY			STUDIO			TOTAL MARKS					
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%							
PC	AR	THEORY	ARCH 205	HISTORY OF ARCHITECTURE & CULTURE - II	Max	50	20	30			100	2				2	
					Min	23	9	14			46						

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

ARCH 205: History of Architecture & Culture – II

Course Educational Objectives (CEOs):

S. No.	Course Educational Objective (CEO)	Bloom's Level	Domain
CEO1	To analyse the evolution of settlements and urban systems across early civilisations	Analyse (L4)	Cognitive
CEO2	To examine cultural, environmental, and technological determinants shaping built form	Understand–Analyse (L2–L4)	Cognitive
CEO3	To interpret classical architectural systems (Greek & Roman) in terms of order, proportion, and structure	Apply–Analyse (L3–L4)	Cognitive
CEO4	To develop comparative and graphical analytical skills in understanding historical architecture	Analyse (L4)	Cognitive + Psychomotor

Course Alignment with UNSDG

This course contributes to:

- **SDG 4** – Quality Education
- **SDG 11** – Sustainable Cities and Communities
- **SDG 12** – Responsible Consumption (through understanding traditional practices) by fostering awareness of cultural heritage, contextual architectural responses, and the relationship between human settlements and environmental conditions across historical periods

Course Alignment with IKS and AI:

This course introduces students to indigenous settlement patterns, traditional planning principles, cultural landscapes, and historic spatial systems that shaped human settlements across civilisations. The course encourages understanding of the relationship between society, culture, environment, and the built environment, while drawing parallels with traditional Indian knowledge systems and settlement practices.

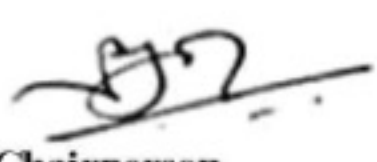
This course provides introductory exposure to digital tools used for historical analysis, mapping, timeline creation, comparative architectural studies, and visual documentation. Students develop awareness of AI-assisted research, data organisation, spatial analysis, and digital visualisation methods that support the study and interpretation of historical architecture and urban development.

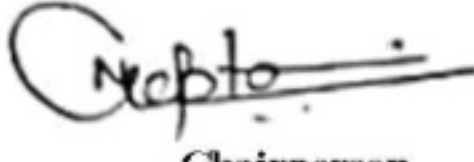
Course outcomes (COs):

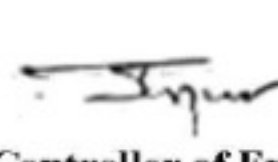
At the end of the course, students will be able to:

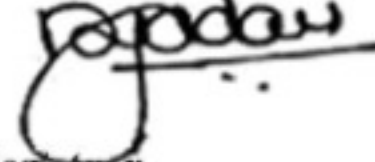
CO	Outcome	Bloom	SDG
CO1	Analyse the evolution of settlement systems and spatial organisation	L4 (Analyse) Cognitive	SDG 11
CO2	Compare the planning principles of early urban civilisations	L4 (Analyse) Cognitive	SDG 11
CO3	Interpret Greek architectural systems and spatial order	L3–L4 (Apply) Cognitive + Psychomotor (Analyse) Cognitive	SDG 11
CO4	Examine Roman construction systems and urban infrastructure	L4 (Analyse) Cognitive	SDG 9, 11
CO5	Critically compare Greek and Roman architecture and their legacy	L4 (Analyse) Cognitive	SDG 11

Course Focus	
	• Evolution of settlement patterns and urban systems • Cultural and environmental determinants of built form • Classical architectural systems (Greek & Roman) • Structural and technological innovations • Comparative and analytical understanding of architecture


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 205: History of Architecture & Culture – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
PC	AR	THEORY	ARCH 205	HISTORY OF ARCHITECTURE & CULTURE - II	Max	50	20	30			100	2				2
					Min	23	9	14			46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Experiential Learning	Students learn through analytical sketching, comparative architectural studies, timeline preparation, settlement mapping, case study analysis, monument documentation, and visual interpretation exercises. Learning is reinforced through diagrammatic analysis of historical settlements, study of architectural elements and urban forms, site visits to heritage environments where feasible, digital mapping exercises, and preparation of comparative sheets that develop observation, analytical thinking, and understanding of the relationship between culture, society, environment, and architecture.
Course Overview:	The course examines the historical evolution of architecture as a response to cultural, social, environmental, and technological factors. It emphasises understanding architectural forms, structural systems, spatial organisation, and settlement patterns of early civilisations. Rather than focusing only on individual monuments, the course explores broader architectural traditions, urban patterns, construction technologies, and cultural contexts that shaped built environments.

Teaching Pedagogy

Code	Method
T1	Analytical lectures (diagram-based)
T2	Comparative case study discussions
T3	Diagramming and mapping exercises
T4	Sketch-based interpretation
T5	Timeline + system analysis
T6	Interactive reviews and critiques

Assessment Tools

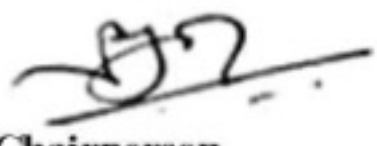
Code	Tool
AT1	Analytical diagrams
AT2	Comparative sheets
AT3	Urban mapping exercises
AT4	Sketch analysis
AT5	Portfolio submission
AT6	Viva voce

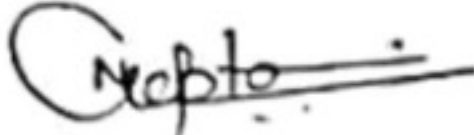
Course Information

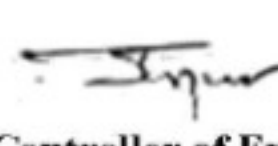
Component	Details
Prerequisites	Basic understanding from ARCH 105: History of Architecture & Culture – I
Mode of Delivery	Theory + Analytical Drawing (Lectures, Visual Presentations, Sketch-based Learning, Case Discussions)

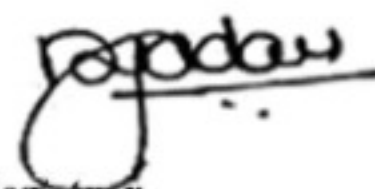
Course Contents:

Unit	Syllabus: Topic	Subtopic	Teaching Hours:	Assessment Tools
I	Prehistoric architecture	Introduction to prehistoric and early human settlements Evolution of primitive shelter forms Megalithic and early structural systems	10 hrs	AT1, AT3 (Analytical diagrams, Urban mapping exercises)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

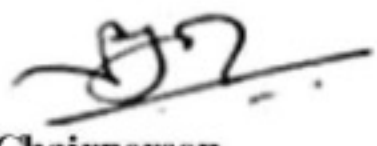
ARCH 205: History of Architecture & Culture – II

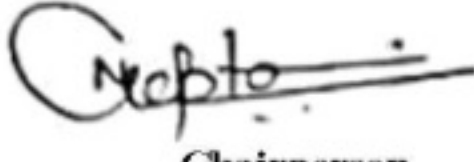
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS		
						THEORY			STUDIO			TOTAL MARKS	L		T	S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
PC	AR	THEORY	ARCH 205	HISTORY OF ARCHITECTURE & CULTURE - II	Max	50	20	30			100	2				2
					Min	23	9	14			46					

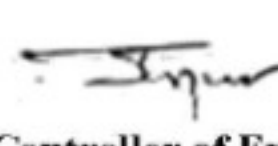
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

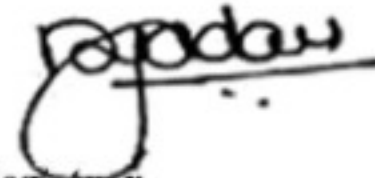
Teachers' Assessment/ sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		Settlement patterns of nomadic and tribal communities Indigenous settlements in India (settlement, dwelling, and community space) as reflections of social and environmental conditions Comparative examples from Africa, Polynesia, and the Americas Logical and structural transformation of the building system Evolution from temporary shelters to permanent settlements Climate, resources, and settlement formation Indigenous settlements in India and comparative global examples		
II	Early civilisations (Mesopotamian, Egyptian, Indus, Chinese, Minoan, Mycenaean, Pre-Columbian Americans, etc.)	- Emergence of early urban cultures - Architecture of Mesopotamian civilisation - Egyptian architecture and monumental construction - Indus Valley civilisation – urban planning, housing, drainage systems - Early Chinese architectural traditions - Minoan and Mycenaean architecture - Pre-Columbian architecture of Central and South America Introduction to early civilisation, their societies, culture, material, structural and technological features leading towards the progress of their architecture – City building, large-scale organisations, urban form, dwelling, social institutions, Comparison to early urban cultures of Cities and early religious architecture in India. Rock-cut architecture and early temple forms - Comparative analysis of river valley civilisations - Urban infrastructure, governance, and city planning Early religious and civic architecture	4 hrs	AT1, AT2 (Analytical diagrams, Comparative sheets)
III	Greek architecture	- Social and cultural context of Greek civilisation - Development of Greek city-states and civic architecture - Greek temple architecture and architectural orders (Doric, Ionic, Corinthian) - Principles of proportion, symmetry, and harmony	8 hrs.	AT1, AT2 (Analytical diagrams, Comparative sheets)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

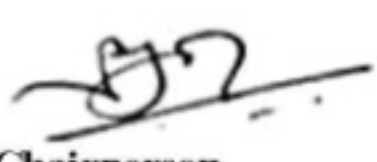
ARCH 205: History of Architecture & Culture – II

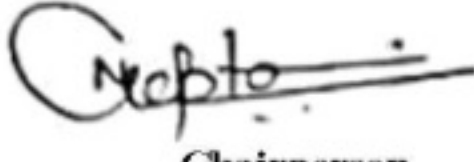
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS		
						THEORY			STUDIO			TOTAL MARKS	L		T	S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
PC	AR	THEORY	ARCH 205	HISTORY OF ARCHITECTURE & CULTURE - II	Max	50	20	30			100	2			2	
					Min	23	9	14			46					

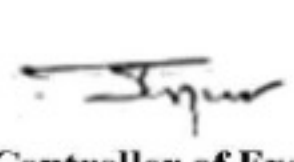
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

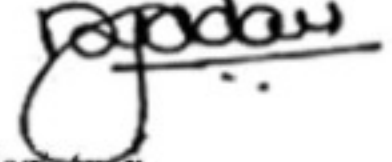
Teachers' Assessment/ sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		- Spatial organisation and architectural composition - Architecture is understood through material, belief, and social systems. - Agora, Acropolis, and civic spaces - Architectural orders and temple architecture Influence of geography and governance on architecture		
IV	Roman Architecture	- Roman civilisation and urban development - Innovations in construction technology (arch, vault, dome) - Development of public architecture – forums, basilicas, baths, amphitheatres - Infrastructure and engineering works - Influence of Roman architecture on later periods Architecture is the realisation of society's ideals. The development of architecture through different phases of the Roman Empire and its decline. The influence of such architecture on later times. - Roman town planning and military settlements - Infrastructure, engineering, and public architecture Influence on later architectural developments	8hrs	AT1, AT2 (Analytical diagrams, Comparative sheets)
V	Comparison of Greek and Roman	A comparison of the urbanism and architecture of Greece & Rome - Comparative analysis of Greek and Roman urbanism - Architectural elements and structural systems - Spatial organisation and planning principles - Influence of culture, philosophy, and governance on architecture - Legacy of classical architecture in later architectural traditions Architectural configurations and elements as a response to contextual factors: land, topography, climate, materials and techniques; and social organisation. Spatial organisation and form as an expression of social and political order: Scale, geometry, and form as architectural tools and disciplines. Architectural form expresses the cosmology and philosophy of culture; geometry, proportion, orientation, hierarchy, and precision as tools. - Comparative urban morphology	6 Hrs	AT2, AT3 (Comparative sheets, Urban mapping exercises)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 205: History of Architecture & Culture - II

ARCH 205: History of Architecture & Culture - II															
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	AR	THEORY	ARCH 205	HISTORY OF ARCHITECTURE & CULTURE - II	Max	50	20	30			100	2		2	
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment/ sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		Architecture as an expression of society and culture Legacy in later architectural traditions and urban planning		
--	--	---	--	--

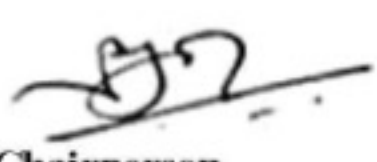
Course Delivery Framework

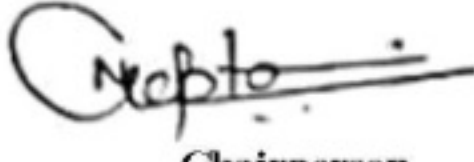
S. No.	Category	Component	Description
1	Sessional Work	Analytical Sheets	Diagrammatic representation of settlements, buildings, and spatial systems
		Comparative Sheets	Greek vs Roman architecture, urban systems, and structural analysis
		Mapping Exercises	Settlement layouts, urban patterns, and spatial hierarchy diagrams
		Sketch Work	Freehand sketches of architectural elements and compositions
		Timeline Charts	Evolution of civilisations and architectural systems
		Portfolio Submission	Compilation of all analytical and graphical work
		Viva Voce	Evaluation of conceptual clarity and analytical understanding
2	Teaching Methodology	Lectures	Illustrated and analytical lectures with visual references
		Case Study Discussions	Comparative analysis of civilisations and architectural systems
		Diagram-Based Learning	Emphasis on diagrams over descriptive content
		Interactive Sessions	Discussions, quizzes, and review sessions
3	Skills Knowledge Transfer &	Analytical Skills	Ability to interpret architectural systems and spatial organisation
		Comparative Thinking	Understanding differences across civilisations
		Graphical Skills	Diagramming, sketching, and visual communication
		Cultural Understanding	Linking architecture with society and environment
4	Course Emphasis	Analytical Approach	Focus on interpretation rather than description
		Urban Systems	Understanding settlement planning and infrastructure
		Classical Architecture	Greek and Roman systems and principles
		Comparative Learning	Cross-cultural architectural analysis

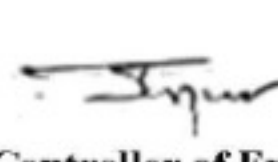
Additional Resources

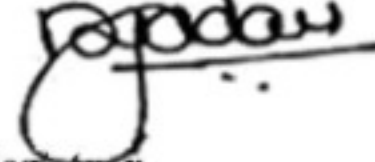
Value addition to course content/ Skill enhancement content:

- Lectures and seminars on the evolution of world architecture, settlements, civilisations, and cultural landscapes across historical periods.
- Exposure to architectural history through visual timelines, historical maps, documentaries, archival studies, and comparative analyses of architectural styles.
- Site visits to heritage precincts, temples, forts, museums, archaeological sites, and culturally significant built environments for experiential learning.


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 205: History of Architecture & Culture – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					
PC	AR	THEORY	ARCH 205	HISTORY OF ARCHITECTURE & CULTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

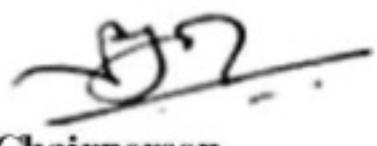
Teachers' Assessment/ sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

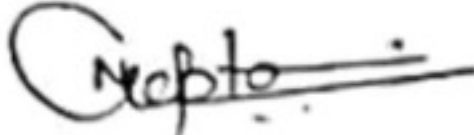
- Hands-on exercises in chronology mapping, stylistic analysis, architectural sketching, and interpretation of historical built forms.
- Learning through films, visual archives, digital reconstructions, and interdisciplinary discussions related to history, sociology, art, culture, and urbanism.
- Online learning modules on architectural history, heritage studies, cultural landscapes, and traditional settlements through NPTEL, SWAYAM, MIT OpenCourseWare, and international archives.
- Exposure to vernacular architecture, traditional construction systems, and global architectural movements through journals, digital repositories, and educational media.
- Development of analytical thinking and critical interpretation through comparative studies of historical architectural traditions and cultural contexts.

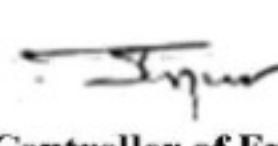
Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.

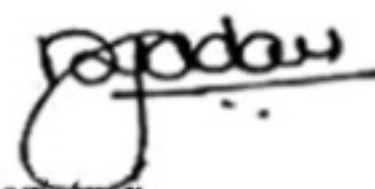
Suggested Readings:

Reference Books	Ching, F. D. K., Jarzombek, M., & Prakash, V. (2017). A global history of architecture (3rd ed.). Wiley. Fletcher, B. (1996). A history of architecture (20th ed.). Architectural Press. Fazio, M., Moffett, M., & Wodehouse, L. (2008). A world history of architecture. McGraw-Hill. Kostof, S. (1985). A history of architecture: Settings and rituals. Oxford University Press. Norberg-Schulz, C. (1988). Meaning in Western architecture. Rizzoli. Sandström, G. E. (1970). Man the builder: An illustrated history of architecture. McGraw-Hill. Maisels, C. K. (1990). The emergence of civilisation. Routledge. Tadgell, C. (2000). A history of architecture in India: From the dawn of civilisation to the end of the Raj. Phaidon. Cotterell, A. (Ed.). (1980). The Penguin encyclopedia of ancient civilisations. Penguin. Lloyd, S., & Müller, H. W. (1986). Ancient architecture: History of world architecture. Faber & Faber.
Suggested e- resources (Websites/e-books)	• NPTEL – History of Architecture and Culture Courses • SWAYAM Portal • MIT OpenCourseWare – History, Theory and Criticism of Architecture • UNESCO World Heritage Centre – Heritage documentation, cultural landscapes, and conservation resources. • Archnet – Global architecture, Islamic architecture, heritage, and urbanism archives. • Getty Publications Virtual Library – Free digital books on art, architecture, archaeology, and conservation. • RIBApix – Architectural drawings, historical photographs, and archival collections. • SAH Archipedia – Architectural history and building documentation resources. • ArchDaily – Historical essays, architectural case studies, and cultural discourse. • Dezeen – Contemporary discussions on architecture, history, and design culture.


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	ARCH 205: HISTORY OF ARCHITECTURE & CULTURE - II						L	T	S	CREDITS
						THEORY			STUDIO						
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	AR	THEORY	ARCH 205	HISTORY OF ARCHITECTURE & CULTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment/ sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	• The Architectural Review – Architectural criticism, theory, and historical discourse. • Internet Archive – Repository of architecture books, journals, and historical publications. • Harvard GSD – Lectures and discussions on architecture, heritage, and urbanism. • Louisiana Channel – Interviews with architects, historians, artists, and thinkers. • CNA Insider – Documentaries on heritage cities, settlements, culture, and urban change. • Blessed Arch – Tutorials on drafting, rendering, and architectural visualisation. • James Hamilton Architects – Architectural workflows, detailing, and design communication. • RIBApix – Architectural drawings, archival sketches, and graphic references. • Internet Archive – Digital repository of drafting manuals, drawing references, and architectural books.
--	---

Course Articulation Matrix (Mapping of COs with POs)

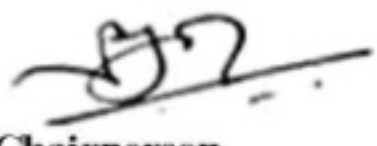
Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	2	–	–	–	2	2	–	–	2	–	1	3	2	–
CO2	3	3	–	2	–	2	2	–	–	2	–	1	3	3	–
CO3	3	3	2	–	–	1	2	–	–	2	–	1	3	3	–
CO4	3	3	2	2	–	1	2	–	–	2	–	1	3	3	–
CO5	3	3	2	2	–	2	2	–	–	2	–	1	3	3	1
CO6	3	2	–	–	–	2	2	–	–	2	–	1	3	2	–

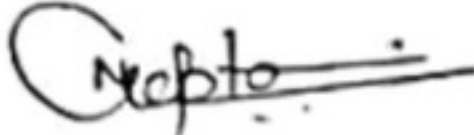
Assessment Scheme

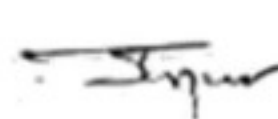
S.No	Component	Method	COs Mapped	Weightage
1	Assignments / Quizzes	Written + analytical tasks	CO1, CO2, CO5	15%
2	Analytical Drawings	Study sheets, diagrams	CO3, CO4, CO6	20%
3	Timeline / Mapping Exercises	Visual + conceptual	CO1, CO3	10%
4	Mid-Sem Exam	Written + diagrams	CO1, CO2, CO4	20%
5	Final Exam	Comprehensive theory + analysis	CO1–CO5	25%
6	Viva / Presentation	Oral + graphical	CO4, CO6	10%

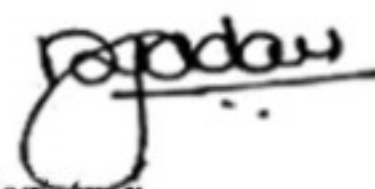
Evaluation Rubrics (Studio)

S.No	Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
1	Conceptual Understanding	Deep, interconnected	Clear understanding	Basic grasp	Limited knowledge


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 205: History of Architecture & Culture – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment* 30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	AR	THEORY	ARCH 205	HISTORY OF ARCHITECTURE & CULTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment/ sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

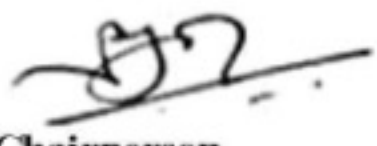
2	Historical Analysis	Strong contextual links	Good analysis	Limited connections	No analysis
3	Graphic Representation	Accurate & well-composed	Minor errors	Basic diagrams	Poor drawings
4	Critical Thinking	Insightful interpretation	Some depth	Limited thinking	No analysis
5	Cultural Interpretation	Strong socio-cultural linkage	Moderate linkage	Basic understanding	No context
6	Presentation	Clear & structured	Minor gaps	Basic clarity	Poor organisation

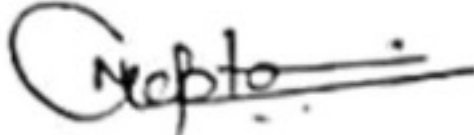
Submission Structure (Suggested)

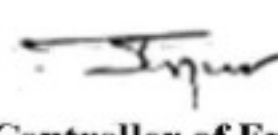
- 6–8 Analytical Sheets (A2 size)
- 1 Timeline Sheet
- 1 Case Study Sheet
- Sketchbook (Continuous Work)
- 1 Short Research Paper
- Final Portfolio + Viva

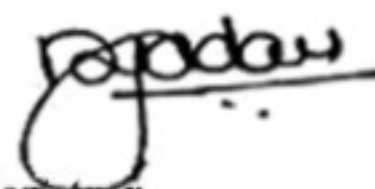
Theory Components & Suggested Assignments

S.No	Component	Assignment Type	Output Format
1	Chronological Evolution	Timeline Mapping	A2/A3 visual sheet
2	Cultural Context	Analytical Write-up	800–1000 words + diagrams
3	Architectural Elements	Sketch Analysis	Freehand sketches
4	Case Study	Building Analysis	A2 sheet (drawings + inference)
5	Comparative Study	Greek vs Roman	A2 sheet (tabular + diagrams)
6	Construction Techniques	Structural Systems	A2 sheet (post-and-lintel, arch, vault, dome)
7	Settlement Patterns	Morphology Mapping	A2 sheet
8	Visual Representation	Sketchbook	Continuous journal
9	Research Component	Short Paper	1000–1500 words
10	Presentation	Seminar / Viva	PPT + oral


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 206: Environmental Science for Architecture

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO			L	T		S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	VAC	THEORY	ARCH 206	ENVIRONMENTAL SCIENCE FOR ARCHITECTURE	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

ARCH 206: Environmental Science for Architecture

Course Educational Objectives (CEOs):

S. No.	Course Educational Objective (CEO)	Bloom's Level	Domain
CEO1	To understand the relationship between natural systems, ecosystems, and the built environment	Understand (L2)	Cognitive
CEO2	To sensitise students to sustainability, ecological balance, and human impacts on the environment	Understand (L2)	Affective + Cognitive
CEO3	To apply environmental design strategies, resource efficiency, and mitigation approaches in architecture.	Apply (L3)	Cognitive
CEO4	To develop awareness of disaster resilience and promote responsible, sustainable architectural practices	Apply (L3)	Cognitive + Affective

Course Alignment with UNSDG

This course contributes to:

SDG 6, SDG 7, SDG 11, SDG 12, SDG 13, SDG 15

through sustainable resource use, climate-responsive design, and ecological awareness.

Course Alignment with IKS and AI:

This course introduces students to traditional ecological knowledge, indigenous resource management practices, climate-responsive architecture, and vernacular approaches to sustainability and disaster resilience. It highlights how traditional settlements and building systems evolved in harmony with natural ecosystems, offering valuable lessons for contemporary sustainable design.

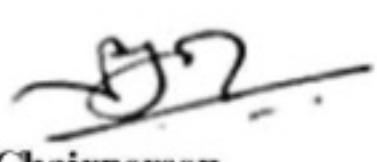
This course provides an introduction to digital and AI-assisted tools used in environmental analysis, energy assessment, climate studies, sustainability evaluation, and disaster risk mapping. Students are exposed to emerging technologies that support environmental decision-making, performance assessment, and data-driven approaches to sustainable architectural practice.

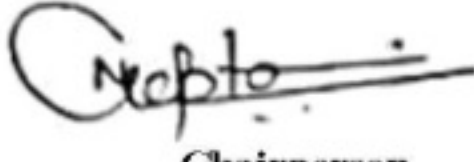
Course outcomes (COs):

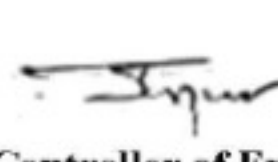
At the end of the course, students will be able to:

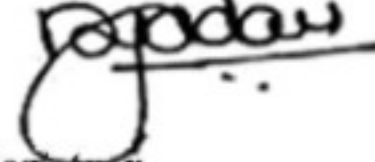
CO	Outcome	Bloom	SDG
CO1	Explain environment–ecosystem relationships in architecture	L2 (Understand) Cognitive	SDG 11, 13
CO2	Describe energy systems and sustainability in buildings	L2–L3 (Understand) Cognitive (Apply) Cognitive + Psychomotor	SDG 7, 12
CO3	Analyse environmental impacts and mitigation strategies	L3–L4 (Apply) Cognitive + Psychomotor (Analyse) Cognitive	SDG 11, 13
CO4	Understand disaster resilience and architectural response	L2–L3 L2 (Understand) Cognitive (Apply) Cognitive + Psychomotor	SDG 11, 13
CO5	Evaluate sustainable architecture through case studies	L3 (Apply) Cognitive + Psychomotor	SDG 11, 12

Course Focus	- Environment–Built–Human relationship - Sustainability and ecological balance - Climate-responsive architecture - Environmental impact and mitigation - Resource efficiency and resilience
--------------	---


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 206: Environmental Science for Architecture

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					
PC	VAC	THEORY	ARCH 206	ENVIRONMENTAL SCIENCE FOR ARCHITECTURE	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Experiential Learning (Course Level)	Students learn through environmental observation, site analysis, climate mapping, case study documentation, resource-flow analysis, and sustainability assessment exercises. The course encourages a field-based understanding of natural and built environments through site visits, environmental audits, mapping of ecological systems, disaster risk assessment exercises, and the study of climate-responsive buildings and settlements. Learning is reinforced through analytical diagrams, comparative case studies, and hands-on investigations that help students understand environmental processes and how to apply them in sustainable architectural design.
Course Overview:	The course introduces students to environmental science concepts relevant to architecture and highlights the relationship between natural systems and built environments . It focuses on ecology, energy resources, environmental pollution, disaster management, and sustainable architectural practices . Students develop awareness of environmentally responsible design approaches and understand architects' role in creating sustainable and resilient built environments .

Teaching Pedagogy

Code	Method
T1	Concept-based lectures (diagram-oriented)
T2	Environmental case study discussions
T3	Climate analysis and mapping exercises
T4	Diagrammatic and flow-based representation
T5	Site-based environmental interpretation
T6	Interactive reviews and discussions

Assessment Tools

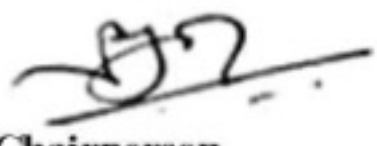
Code	Tool
AT1	Environmental analytical diagrams
AT2	Case study sheets
AT3	Climate/site mapping
AT4	Resource flow diagrams (energy, water, waste)
AT5	Portfolio submission
AT6	Viva voce

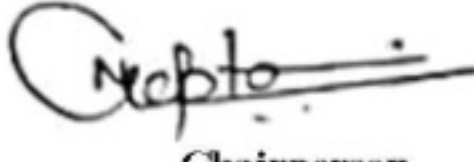
Course Information

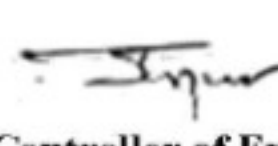
Component	Details
Prerequisites	None
Mode of Delivery	Theory + Analytical + Studio-integrated (Lectures, diagrams, case studies, site-based understanding)

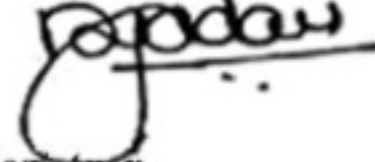
Course Contents:

Unit	Syllabus: Topic	Subtopic	Teaching Hours	Assessment Tools
I	Introduction to Environment & Built Environment	- Concept of environment and ecosystems - Definition and components of the environment - Built environment and its evolution - Urbanisation: growth, challenges, and impacts	5Hrs	AT1 Environmental analytical diagrams


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

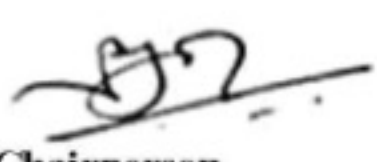
ARCH 206: Environmental Science for Architecture

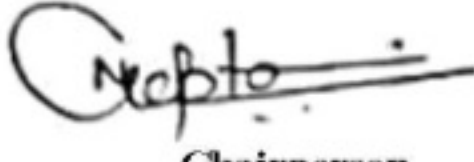
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
PC	VAC	THEORY	ARCH 206	ENVIRONMENTAL SCIENCE FOR ARCHITECTURE	Max	50	20	30			100	2				2
					Min	23	9	14			46					

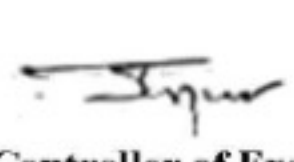
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

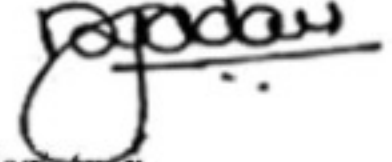
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		• Resource consumption and environmental stress • Climate change and global warming; urban issues: sprawl, congestion, pollution • Pollution and carbon footprint, ecological footprint • Introduction to sustainable development • SDGs and the built environment • Environmental ethics and stewardship • Traditional ecological wisdom and resource-conscious settlement practices. • Introduction to digital environmental data and climate information tools.		
II	Natural and Built Environment Relationships	• Natural systems and ecological balance • Interaction and Interdependence between natural and built environments • Environmental impacts of urban development: Impact of pollution on ecosystems and human settlements • Climate change and environmental risks and adaptation strategies for environmentally responsive design • Biomimicry in architecture and design • Concepts of urban ecology and landscape urbanism • Integration of renewable energy systems in buildings: Relevant case studies • Ecosystem services and urban ecology • Blue-green infrastructure and nature-based solutions - Indigenous water management and landscape practices. • Use of digital mapping and environmental assessment tools.	8Hrs	AT1, AT3(Environmental analytical diagrams, Climate/site mapping)
III	Passive & Active Environmental Design	Passive Design Strategies: • Climate-responsive design in the Indian context • Spatial elements: courtyards, openings, shading devices, balconies • Building orientation and ventilation • Material selection and construction techniques • Vernacular approaches: mud and bamboo architecture • Organic architecture and earth-sheltered buildings Active Design Strategies: • Water management systems • Solid waste management • Energy-efficient systems in buildings • Renewable energy integration • Construction waste management	7 Hrs	AT1, AT4 (Environmental analytical diagrams, Resource flow diagrams (energy, water, waste))


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

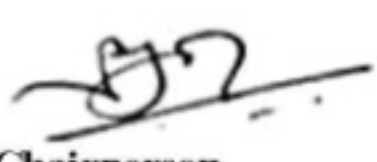
ARCH 206: Environmental Science for Architecture

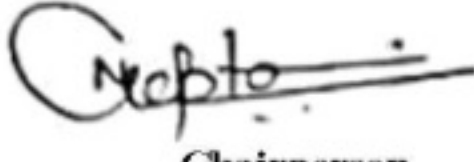
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PC	VAC	THEORY	ARCH 206	ENVIRONMENTAL SCIENCE FOR ARCHITECTURE	Max	50	20	30			100	2			2
					Min	23	9	14			46				

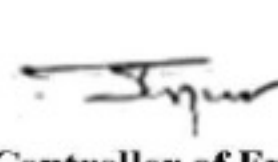
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

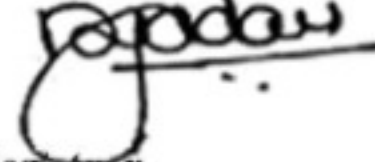
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		- Thermal comfort and daylighting - Net-zero and low-carbon building concepts - Vernacular climate-responsive architecture and traditional passive cooling systems. - Introduction to digital tools for daylight, ventilation, and environmental analysis.		
IV	Disaster Management & Built Environment	- Types of natural and man-made disasters - Disaster preparedness and mitigation - Relief and rehabilitation strategies - Post-disaster reconstruction and relocation - Relocation and reconstruction strategies - Repair and retrofitting of buildings and infrastructure - Role of architects in disaster-resilient design and disaster management - Design considerations for resilience - Climate resilience and adaptation - Community-based disaster preparedness - Traditional disaster-responsive settlement and construction practices. - Awareness of GIS, hazard mapping, and disaster-risk assessment tools.	5Hrs	AT1, AT2(Environmental analytical diagrams, Case study sheets)
V	Eco-Friendly Design Studies Case	- Analysis of sustainable architectural projects - Principles of eco-friendly design - Study of sustainable architectural approaches and philosophies of architects, such as: - Nari Gandhi - Hassan Fathy - Geoffrey Bawa - Norman Foster - Glenn Murcutt - Ken Yeang - Renzo Piano - Frank Lloyd Wright - Buckminster Fuller - Contemporary sustainable practices and innovations - GRIHA and LEED (introductory) - Indian and global sustainable architecture case studies - Comparative study of traditional and contemporary sustainable practices. - Introduction to sustainability assessment and building performance evaluation tools.	5Hrs	AT2, AT4(Case study sheets, Resource flow diagrams (energy, water, waste))


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 206: Environmental Science for Architecture

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
PC	VAC	THEORY	ARCH 206	ENVIRONMENTAL SCIENCE FOR ARCHITECTURE	Max	50	20	30			100	2				2
					Min	23	9	14			46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

S. No.	Category	Component	Description
1	Sessional Work	Analytical Sheets	Environmental diagrams, climate analysis
		Case Studies	Sustainable building analysis
		Portfolio	Compilation of all work
2	Teaching Methodology	Lectures	Concept-based teaching
		Diagrammatic Learning	Visual environmental analysis
		Case Studies	Architect and project-based learning
		Discussions	Sustainability and design debates
3	Skills Transfer	Environmental Awareness	Understanding ecosystems
		Analytical Skills	Climate and resource analysis
		Design Integration	Applying sustainability in design
4	Course Emphasis	Sustainability	Ecological balance and resource efficiency
		Climate Response	Passive design strategies
		Resilience	Disaster-responsive design

Additional Resources

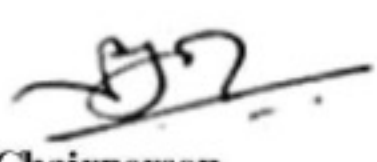
Value addition to course content/ Skill enhancement content:

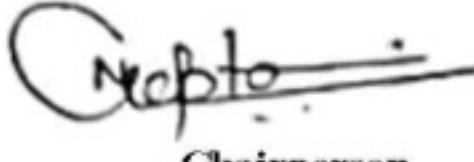
- Exposure to environmental awareness, ecological systems, sustainability principles, and human-environment relationships in architecture and planning.
- Site visits and observational studies related to ecosystems, parks, urban open spaces, water bodies, and environmentally responsive built environments.
- Workshops on environmental mapping, climate-responsive design, landscape interpretation, waste management, and ecological sensitivity in architecture.
- Hands-on exercises in environmental analysis, site planning, microclimate studies, landscape appreciation, and environmental documentation.
- Learning through case studies on sustainable settlements, ecological planning, environmental conservation, and green infrastructure.
- Online learning modules on environmental studies, sustainability, climate change, biodiversity, pollution control, and ecological planning through NPTEL and SWAYAM.
- Exposure to environmental documentaries, digital archives, sustainability forums, and interdisciplinary discussions related to architecture and ecology.
- Development of analytical and ethical understanding of environmental responsibility, sustainable development, and ecological stewardship within the built environment.

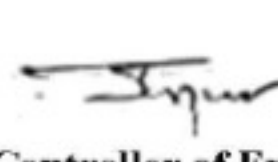
Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.

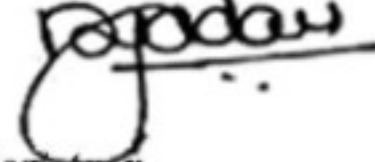
Suggested Readings:

Reference Books	Rutledge, A. J. (1971). <i>Anatomy of a park</i> . McGraw-Hill. Rubenstein, H. M. (1987). <i>A guide to site and environmental planning</i> (3rd ed.). Wiley.
------------------------	--


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 206: Environmental Science for Architecture

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME								CREDITS		
						THEORY			STUDIO		TOTAL MARKS	L	T		S	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
PC	VAC	THEORY	ARCH 206	ENVIRONMENTAL SCIENCE FOR ARCHITECTURE	Max	50	20	30			100	2				2
					Min	23	9	14			46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	Simonds, J. O. (1978). <i>Earthscape: A manual of environmental planning and design</i>. Van Nostrand Reinhold. Dober, R. P. (1969). <i>Environmental design</i>. Van Nostrand Reinhold. Sharma, B. K., & Kaur, H. (n.d.). <i>Environmental pollution</i>. Erach Bharucha. (2005). <i>Textbook of Environmental Studies</i>. UGC
Suggested e- resources (Websites/e-books)	• NPTEL – Environmental Studies Courses • SWAYAM Portal • Ministry of Environment, Forest and Climate Change (MoEFCC) • UN Environment Programme (UNEP) • UN Sustainable Development Goals • World Resources Institute – Research and resources on sustainability, climate, and urban environments. • ArchDaily – Sustainability • Dezeen – Sustainable Architecture • Indian Green Building Council (IGBC) • Council of Architecture – Environmental Resources • HUDCO Knowledge Resources • The Energy and Resources Institute (TERI) – Environmental research, sustainability, and ecological planning resources. • MIT OpenCourseWare – Environment and Sustainability • National Geographic Environment – Environmental awareness, ecosystems, and climate-related learning resources.

Course Articulation Matrix (Mapping of COs with POs)

Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	2	–	–	–	2	2	–	–	2	–	1	3	2	–
CO2	3	3	–	2	–	2	2	–	–	2	–	1	3	3	–
CO3	3	3	2	–	–	1	2	–	–	2	–	1	3	3	–
CO4	3	3	2	2	–	1	2	–	–	2	–	1	3	3	–
CO5	3	3	2	2	–	2	2	–	–	2	–	1	3	3	1
CO6	3	2	–	–	–	2	2	–	–	2	–	1	3	2	–

Assessment Scheme

Component	Method	COs Mapped	Weightage
Assignments / Quizzes	Written + analytical	CO1, CO2	15%
Analytical Diagrams	Environmental mapping	CO3, CO5	20%
Case Study	Sustainable building analysis	CO5	15%
Mid-Sem Exam	Theory + diagrams	CO1, CO3	20%
Final Exam	Comprehensive evaluation	CO1–CO5	20%

Evaluation Rubrics (Studio)

Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
----------	---------------	----------	-------------	----------

Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore

Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav institute of Architecture
 Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
1ST YEAR / II Semester

ARCH 206: Environmental Science for Architecture

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME										
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
PC	VAC	THEORY	ARCH 206	ENVIRONMENTAL SCIENCE FOR ARCHITECTURE	Max	50	20	30			100	2				2
					Min	23	9	14			46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

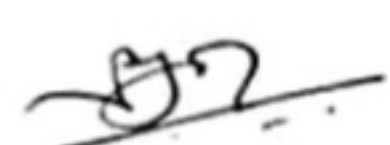
Conceptual Understanding	Deep and connected	Clear	Basic	Limited
Environmental Analysis	Strong interpretation	Good	Limited	Weak
Application	Well-integrated	Moderate	Basic	None
Case Study	Insightful	Adequate	Basic	Poor
Presentation	Clear and structured	Minor gaps	Basic	Poor

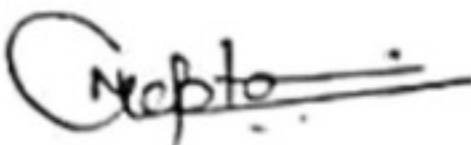
Submission Structure (Suggested)

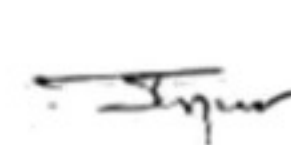
- 5–6 Analytical Sheets (A2)
- 1 Climate Analysis Sheet
- 1 Case Study Sheet
- Site Analysis Exercise
- Portfolio Submission
- Viva Voce

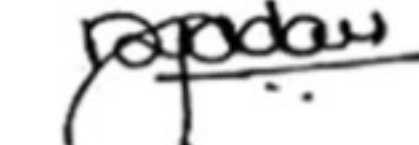
Theory Components & Suggested Assignments

Component	Assignment Type	Output Format
Environmental Systems	Diagrammatic Study	A2 sheet
Climate Analysis	Site-based study	A2 sheet
Energy Systems	Analytical diagrams	A2 sheet
Case Study	Sustainable building	A2 sheet
Resource Flow	Water/energy mapping	A2 sheet
Disaster Response	Strategy mapping	A2 sheet
Research Component	Short paper	800–1200 words
Presentation	Seminar / Viva	PPT


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 207: Theory of Structures – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO			L	T		S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
BS& AE	TE	THEORY	ARCH 207	THEORY OF STRUCTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

ARCH 207: Theory of Structures – II

Course Educational Objectives (CEOs):

S. No.	Course Educational Objective (CEO)	Bloom's Level	Domain
CEO1	To develop an understanding of the structural behaviour of elements under load (provide knowledge of different forces, force systems)	Understand (L2)	Cognitive
CEO2	To introduce analysis of beams, stresses, and load transfer mechanisms (Beam types, sectional properties, and behaviour of different members due to applied forces)	Apply (L3)	Cognitive
CEO3	To relate structural systems to architectural form and space-making	Analyse (L4)	Cognitive

Course Alignment with UNSDG

This course contributes to:

- **SDG 9:** Industry, Innovation and Infrastructure
- **SDG 11:** Sustainable Cities and Communities
- **SDG 12:** Responsible Consumption and Production

Course Alignment with IKS and AI :

This course introduces students to traditional structural wisdom embedded in vernacular architecture, indigenous load-bearing systems, empirical construction knowledge, and time-tested structural practices. The course highlights how traditional builders achieved stability, strength, and durability through an intuitive understanding of materials and structural behaviour, providing valuable insights for contemporary architectural design.

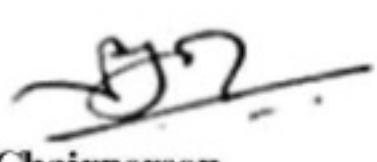
This course introduces digital and AI-assisted structural analysis tools used to understand forces, stresses, bending behaviour, deflection, and structural performance. Students develop awareness of computational methods, simulation-based learning, and data-supported structural evaluation techniques that assist in informed architectural and structural decision-making.

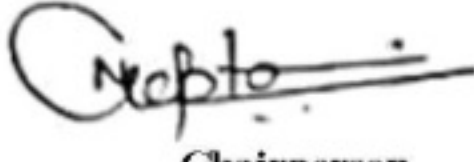
Course outcomes (COs):

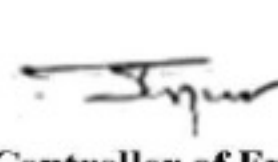
At the end of the course, students will be able to

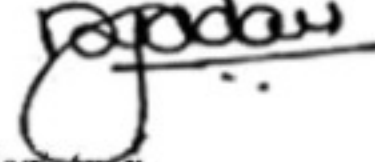
CO	Outcome	Bloom	SDG
CO1	Explain the behaviour of structural elements under bending and loading	L2 (Understand) Cognitive	SDG 9
CO2	Analyse beams, stresses, and deflection in structural members	L3 (Apply) Cognitive + Psychomotor	SDG 9
CO3	Apply concepts of shear force and bending moment in structures	L3 (Apply) Cognitive + Psychomotor	SDG 9
CO4	Evaluate the stability and behaviour of columns and structural systems	L4 (Analyse) Cognitive	SDG 11
CO5	Interpret structural systems in relation to architectural design	L4 (Analyse) Cognitive	SDG 11

Course Focus	
	• Behaviour of structural elements (beam, column, slab) • Load transfer mechanisms and structural action • Structural systems and spatial generation • Stability, strength, and deflection • Integration of structure with architectural design


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 207: Theory of Structures – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					
BS& AE	TE	THEORY	ARCH 207	THEORY OF STRUCTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Experiential I	Students learn through structural demonstrations, physical model-making, numerical problem-solving, analytical diagrams, case studies, and site visits. Learning is reinforced through observation and analysis of beams, columns, trusses, frames, shells, and other structural systems, helping students understand how forces transfer and how structural members behave under different loads. These activities help students connect theoretical concepts of forces, bending, stresses, deflection, stability, and load transfer with real structural behaviour and their application in architectural design.
Course Overview:	Gives an in-depth understanding of the concepts associated with different Elements of Structures. Structural systems- ways to create inner space; Understanding loads of various types, understanding the forces and Moments, how structures behave under different types of loads and how structural systems contribute to architectural form. – Definition, cause, effect, units. Types of forces. Conditions of equilibrium. Beam reactions. It builds on basic mechanics (ARCH 107) and focuses on applied structural behaviour, including beams, stresses, deflection, and structural systems.

Teaching Pedagogy

Code	Method
T1	Concept-based lectures (diagram-oriented)
T2	Numerical problem-solving sessions
T3	Structural behaviour visualization
T4	Case-based structural discussions
T5	Model-based demonstrations
T6	Interactive problem-solving reviews

Assessment Tools

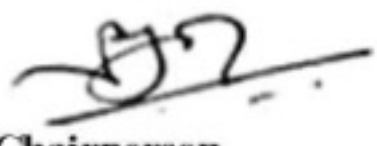
Code	Tool
AT1	Numerical problem sheets
AT2	Structural diagrams and sketches
AT3	Case-based analysis sheets
AT4	Conceptual assignments
AT5	Portfolio submission
AT6	Viva voce

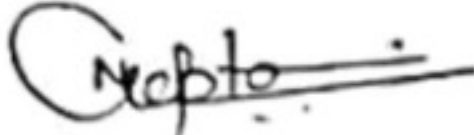
Course Information

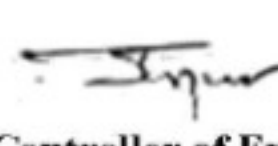
Component	Details
Prerequisites	Basic understanding of forces and equilibrium (ARCH 107)
Mode of Delivery	Lecture + problem-solving + diagrammatic learning

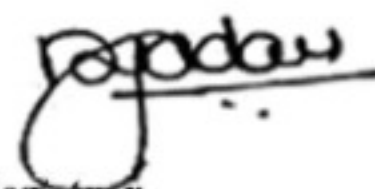
Course Contents:

Unit	Syllabus: Topic	Subtopic	Teaching Hours:	Assessment Tools
I	Bending Behaviour &	Key Topics Concept of bending in beams (application-based understanding)	8 hrs	AT1, AT2, AT5 Numerical problem


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

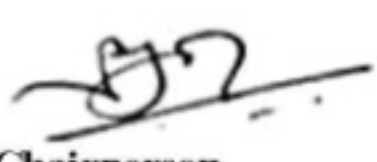
ARCH 207: Theory of Structures – II

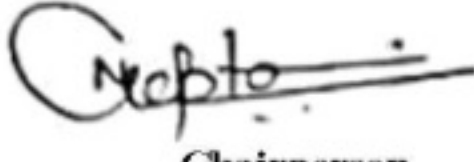
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					
BS& AE	TE	THEORY	ARCH 207	THEORY OF STRUCTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

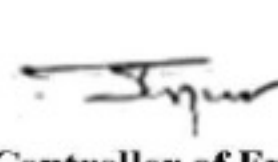
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

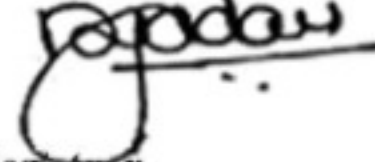
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	Sectional Properties	- Pure bending vs ordinary bending - Assumptions of bending theory (brief recall) - Flexure formula (concept + application) - Bending stress distribution & neutral axis - Section modulus and its structural significance Sectional Properties +Centre of gravity and centroid: - Simple sections - Composite sections - Moment of Inertia (M.I.): - Simple and built-up sections - Importance of resisting bending - Application of section properties in beam behaviour Connections - Introduction to welded joints - Types: fillet, butt (basic understanding) - Advantages & limitations - Strength of fillet weld (conceptual) - Basic design idea for axial loading - Comparison of traditional timber beams and contemporary beam systems. - Introduction to digital visualisation of stress distribution in beam sections.		sheets; Structural diagrams and sketches; Portfolio submission
II	Structural Systems & Force Behaviour	Force Behaviour in Structures - Resolution of forces (application in structures) - Load transfer mechanisms (not basic definitions) Shear Force & Bending Moment - Concept and importance in structural design - Behaviour of beams under loads Structural Systems Classification - Based on load transfer: - Solid systems (walls, arches, vaults) - Surface systems (plates, shells, grids) - Skeleton systems (frames, trusses) - Membrane systems (cables, tensile structures) - Hybrid systems - Triangulation - Structural stability through triangulation - Application in trusses (pin-jointed systems) - Vernacular structural systems as examples of load transfer and stability. - Introduction to computational modelling of structural systems (awareness level).	8 hrs.	AT3, AT4, AT5 Case-based analysis sheets; Conceptual assignments; Portfolio submission
III	Stress Behaviour & Stability of Members	Stress Behaviour - Combined stresses: - Direct + bending stress Stress types in members:	8 hrs.	AT1, AT2, AT5 Numerical problem sheets


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

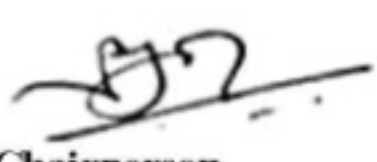
ARCH 207: Theory of Structures – II

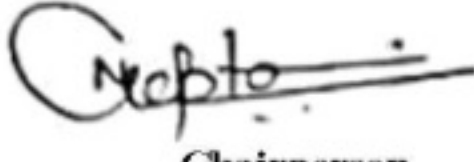
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME								CREDITS		
						THEORY			STUDIO		TOTAL MARKS	L	T		S	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
BS& AE	TE	THEORY	ARCH 207	THEORY OF STRUCTURE - II	Max	50	20	30			100	2				2
					Min	23	9	14			46					

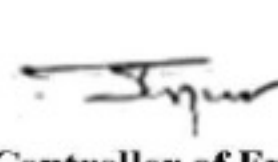
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

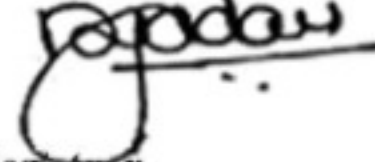
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		○ Tensile, compressive, shear, torsion, and bending Column Behaviour • Concept of stability in structures • Buckling of columns: ○ Short vs long columns • Load-carrying behaviour and failure patterns Material Behaviour (Advanced Understanding) • Strength, stiffness, and shape relationships • Structural performance implications • Traditional column systems in historic Indian architecture. • Digital simulation-based understanding of buckling and structural failure.		;Structural diagrams and sketches ;Portfolio submission
IV	Structural Analysis of Beams & Deflection	Propped Cantilevers • Concept and structural behaviour • Reaction of prop • Loading conditions: ○ UDL ○ Point load ○ Intermediate prop Slope & Deflection • Concept of deflection in beams • Importance in structural performance • Deflected shapes of simple structures Loads on Structures (Application Level) • Dead load • Imposed load • Thermal load • Dynamic load Code Awareness • Basic idea of permissible deflection (no deep codes) □ Serviceability considerations in architectural design. • □ Introduction to software-based visualisation of beam deflection.	8hrs.	AT1, AT2,AT5 Numerical problem sheets;Structural diagrams and sketches;Portfolio submission
V	Structural Behaviour & Load Transfer Mechanisms	Load Transfer Systems • Structural elements: ○ Strut ○ Tie ○ Beam ○ Slab/plate ○ Panel Load Direction • Vertical vs horizontal systems • Rational load transfer in buildings Stress Distribution in Beams • Shear stress:	8hrs.	AT2, AT3,AT4,A T6 Structural diagrams and sketches;Case-based analysis sheets;Conceptual assignments;Viva voce


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 207: Theory of Structures – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
BS& AE	TE	THEORY	ARCH 207	THEORY OF STRUCTURE - II	Max	50	20	30			100	2				2
					Min	23	9	14			46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		○ Concept ○ Average vs maximum • Distribution across sections: ○ Rectangular ○ Circular ○ I, T, L, C sections (introductory) Structural Behaviour in Real Context • Settlement and basic earthquake response (conceptual) • Behaviour of members under combined forces □ Structural response of vernacular buildings to environmental forces. • □ Awareness of AI-assisted structural analysis and performance evaluation tools.		
--	--	--	--	--

Course Delivery Framework

S. No.	Category	Component	Description
1	Sessional Work	Numerical Sheets	Problem-solving sheets on bending, reactions, deflection, and stress analysis
		Analytical Diagrams	Shear force, bending moment, stress distribution, load paths
		Structural Sketches	Load transfer diagrams, system behaviour, failure patterns
		Case Studies	Study of real structural systems (trusses, frames, shells, etc.)
		Portfolio Submission	Compilation of numerical, diagrams, and conceptual work
2	Teaching Methodology	Conceptual Lectures	Explanation of structural behaviour with minimal derivation focus
		Problem-Solving Sessions	Step-by-step numerical demonstrations
		Diagrammatic Learning	Visual understanding of forces, stresses, and systems
		Case-based Learning	Real-world structural examples and applications
		Interactive Reviews	One-to-one discussions and doubt clearing
3	Skills Transfer	Structural Understanding	Ability to interpret load paths and system behaviour
		Analytical Skills	Solving basic structural problems and interpreting results
		Visualisation Skills	Understanding 3D behaviour through 2D diagrams
		Application Skills	Relating structure to architectural design decisions
4	Course Emphasis	Structural Behaviour	Understanding how structures respond to loads
		Load Transfer	Flow of forces through structural systems
		Stability & Safety	Basic concepts of equilibrium, buckling, and failure
		Integration with Design	Linking structure with architectural form and space

Additional Resources

Value addition to course content/ Skill enhancement content:

- Workshops on structural behaviour, load transfer mechanisms, force systems, and structural analysis through physical models and graphical methods.

Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore

Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 207: Theory of Structures – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO		L	T	S		
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					TOTAL MARKS
BS& AE	TE	THEORY	ARCH 207	THEORY OF STRUCTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

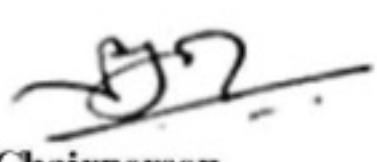
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

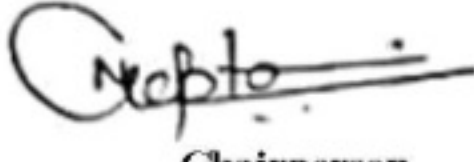
- Exposure to structural systems in architecture through case studies, bridge studies, shell structures, framed systems, and long-span structures.
- Hands-on exercises in structural modelling, force diagrams, truss analysis, and behaviour of beams, columns, and frames.
- Integration of theory with real-world applications through site visits to construction projects, structural systems, and engineering laboratories.
- Learning through demonstrations, analytical problem-solving, structural simulations, and precedent-based understanding of architecture and structure integration.
- Online learning modules on structural mechanics, strength of materials, structural systems, and architectural structures through NPTEL, SWAYAM, and engineering platforms.
- Exposure to innovative and sustainable structural systems through architectural journals, engineering documentaries, and digital resources.
- Development of analytical and technical understanding of equilibrium, stability, structural efficiency, and the relationship between structure and architectural form.

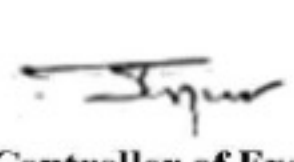
Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.

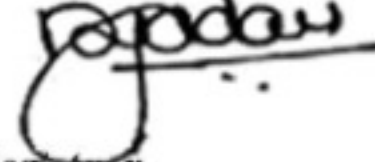
Suggested Readings:

Reference Books	Core Textbooks (Essential) Ching, F. D. K. (2014). <i>Building Structures Illustrated</i> . John Wiley & Sons. Salvadori, M., & Heller, R. (1975). <i>Structure in Architecture: The Building of Buildings</i> . Prentice-Hall. Onouye, B. S. (2015). <i>Statics and Strength of Materials for Architecture and Building Construction</i> . Pearson. Hibbeler, R. C. (2013). <i>Structural Analysis</i> . Pearson. Ramamrutham, S. (2013). <i>Theory of Structures</i> . Dhanpat Rai & Sons. Supporting References Gordon, J. E. (1984). <i>The New Science of Strong Materials</i> . Princeton University Press. Muttoni, A. (2011). <i>The Art of Structures</i> . Routledge. Charleson, A. (2015). <i>Structure as Architecture</i> . Taylor & Francis. Schodek, D. L. (1980). <i>Structures</i> . Prentice-Hall. Sandaker, B. N., & Eggen, A. P. (1992). <i>The Structural Basis of Architecture</i> . Whitney Library. Codes / Standards Bureau of Indian Standards. <i>IS 800: Code of Practice for Structural Steel</i> . Bureau of Indian Standards. <i>IS 883: Timber Design Code</i> .
	Suggested e- resources (Websites/e-books) • NPTEL – Structural Analysis Courses • NPTEL – Strength of Materials • NPTEL – Structural Mechanics and Structural Systems • SWAYAM Portal • MIT OpenCourseWare – Structures and Mechanics • The Constructor – Articles and tutorials on structural systems, mechanics, and construction technology. • Structurae – International database of structures, bridges, and structural engineering works. • ArchDaily – Structural Engineering • Dezeen – Structural Design and Engineering • The B1M – Structural engineering, infrastructure systems, and construction documentaries.


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 207: Theory of Structures – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO		L	T	S		
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					TOTAL MARKS
BS& AE	TE	THEORY	ARCH 207	THEORY OF STRUCTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	• Architecture Foundation – Lectures and discussions on architecture, engineering, and structural systems. • Harvard GSD – Talks on structural innovation, architectural technology, and design research. • Bureau of Indian Standards – Indian standards and structural design codes.
--	--

Course Articulation Matrix (Mapping of COs with POs)

Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	2	–	–	–	2	2	–	–	2	–	1	3	2	–
CO2	3	3	–	2	–	2	2	–	–	2	–	1	3	3	–
CO3	3	3	2	–	–	1	2	–	–	2	–	1	3	3	–
CO4	3	3	2	2	–	1	2	–	–	2	–	1	3	3	–
CO5	3	3	2	2	–	2	2	–	–	2	–	1	3	3	1
CO6	3	2	–	–	–	2	2	–	–	2	–	1	3	2	–

Assessment Scheme

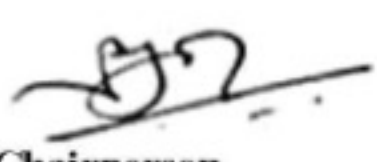
Component	Method	COs Mapped	Weightage
Assignments / Quizzes	Numerical + conceptual problems	CO1, CO2, CO3	15%
Analytical Diagrams	SFD, BMD, stress distribution, load paths	CO2, CO4, CO5	20%
Structural Case Study	Analysis of real structural systems	CO5, CO6	15%
Mid-Sem Exam	Theory + numericals + diagrams	CO1, CO2, CO4	20%
Final Exam	Comprehensive (theory + problems)	CO1–CO5	20%
Viva / Presentation	Oral + graphical explanation	CO3, CO5, CO6	10%

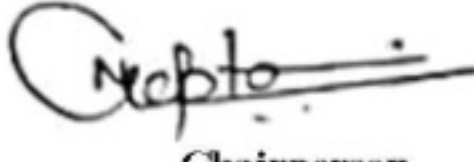
Evaluation Rubrics (Structures-Oriented)

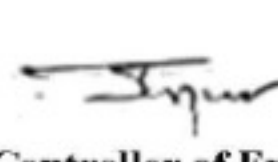
Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
Conceptual Understanding	Strong grasp of structural behaviour	Clear concepts	Basic understanding	Weak clarity
Numerical Accuracy	Correct & precise solutions	Minor errors	Basic correctness	Incorrect
Analytical Diagrams	Accurate, clear SFD/BMD/stress diagrams	Minor issues	Basic diagrams	Incorrect/unclear
Structural Interpretation	Strong understanding of load paths & behaviour	Good	Limited	No clarity
Application	Clear link to architectural systems	Moderate	Basic	No application
Presentation	Clean, structured, well-labelled	Minor gaps	Basic	Poor

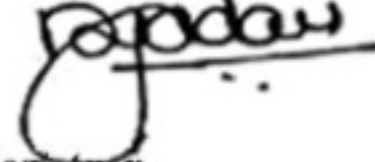
Submission Structure (Suggested)

- 5–6 Numerical + Analytical Sheets (A2/A3)
- 2–3 Diagram Sheets (SFD, BMD, stress, load paths)
- 1 Structural Case Study Sheet
- 1 System Behaviour Sketch Sheet


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 207: Theory of Structures – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO		L	T	S		
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					TOTAL MARKS
BS& AE	TE	THEORY	ARCH 207	THEORY OF STRUCTURE - II	Max	50	20	30			100	2			2
					Min	23	9	14			46				

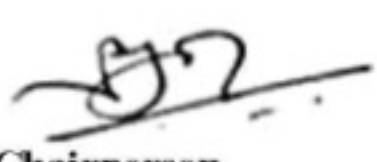
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

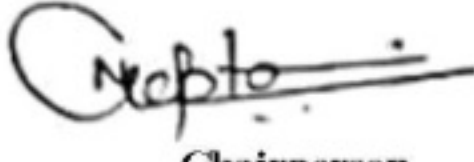
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

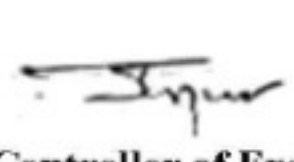
- Practice Problem Book / File
- Final Portfolio + Viva Voce

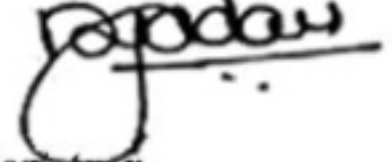
Theory Components & Suggested Assignments

Component	Assignment Type	Output Format
Bending Behaviour	Numerical + diagrammatic analysis	A2/A3 sheet
Section Properties	Centroid & M.I. calculations + diagrams	A2 sheet
Structural Systems	Classification + sketches	A2 sheet
Beam Analysis	SFD & BMD diagrams	A2 sheet
Deflection	Problem-solving + interpretation	A2/A3 sheet
Stress Analysis	Shear & bending stress diagrams	A2 sheet
Case Study	Structural system study (truss/frame/shell)	A2 sheet
Conceptual Understanding	Short theory notes	800–1000 words
Presentation	Viva/explanation	Oral + sheets


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 208: Workshop -II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO		L	T	S		
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					TOTAL MARKS
PAEC	SK	STUDIO	ARCH 208	WORKSHOP- II	Max				50	50	100				
					Min				23	23	46			2	2

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

ARCH 208: Workshop -II

Course Educational Objectives (CEOs):

S. No.	Course Educational Objective (CEO)	Bloom's Level	Domain
CEO1	To develop manual and digital skills for architectural representation and model making	Apply (L3)	Psychomotor
CEO2	To explore materials, tools, and fabrication techniques for three-dimensional expression	Apply (L3)	Psychomotor
CEO3	To enhance visual communication through rendering, sketching, and graphic design	Apply–Analyse (L3–L4)	Cognitive + Psychomotor
CEO4	To integrate different representation techniques for the effective presentation of design ideas	Analyse (L4)	Cognitive

To introduce various fabrication skills and techniques necessary to produce scale models, and encourage the preparation of models as an essential phase in design development and evaluation. Developing overall skills in understanding various tools, processes, and materials.

Course Alignment with UNSDG

This course contributes to:

- SDG 4 – Quality Education
- SDG 9 – Industry, Innovation and Infrastructure
- SDG 11 – Sustainable Cities and Communities

By promoting hands-on learning, craft skills, and visual communication techniques essential for architectural practice.

Course Alignment with IKS and AI:

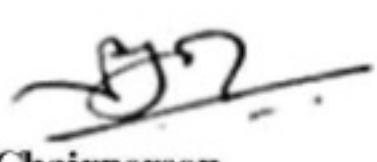
This course promotes an understanding of traditional visual representation methods, indigenous craft practices, hand-rendering techniques, model-making traditions, and architectural documentation as part of India's rich design heritage. Students explore the role of sketching, craftsmanship, visual storytelling, and material expression in architectural communication and creative practice.

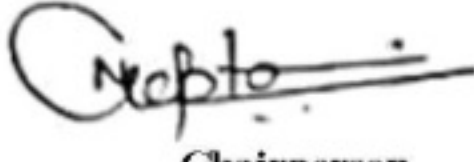
This course introduces students to contemporary digital and AI-assisted tools for architectural visualisation, graphic communication, image editing, photography, presentation design, and digital fabrication. It develops awareness of emerging technologies that complement manual skills and enhance the effectiveness of architectural representation, documentation, and visual communication.

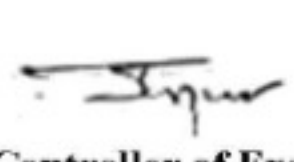
Course outcomes (COs):

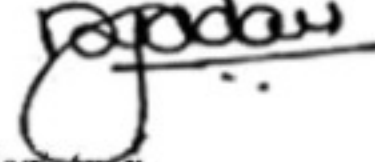
At the end of the course, students will be able to

CO	Outcome	Bloom	SDG
CO1	Apply manual techniques for architectural sketching and rendering	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO2	Develop physical models using appropriate materials and fabrication techniques.	L3 (Apply) Cognitive + Psychomotor	SDG 9
CO3	Use digital tools for editing, composition, and visual communication	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO4	Apply photography techniques for architectural documentation and presentation.	L3 (Apply) Cognitive + Psychomotor	SDG 11
CO5	Integrate graphic design principles in architectural presentations	L4 (Analyse) Cognitive	SDG 9


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 208: Workshop -II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
PAEC	SK	STUDIO	ARCH 208	WORKSHOP- II	Max				50	50	100				
					Min				23	23	46			2	2

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Course Focus	• Manual representation and craft skills • Model making and fabrication techniques • Digital visualisation and graphic design • Photography and visual documentation • Integration of multiple representation techniques
Experiential learning	Students learn through analytical sketching, comparative architectural studies, architect profile analysis, timeline preparation, building documentation, case study analysis, and visual interpretation exercises. Learning is reinforced through study of modern and contemporary buildings, architectural drawings, digital mapping, documentary reviews, virtual architectural tours, and site visits to significant modern and contemporary buildings wherever feasible. These activities develop observation, critical thinking, graphical communication, and an understanding of the relationship between technology, society, culture, environment, and architectural form.
Course Overview:	The course focuses on hands-on skill development in architectural representation, combining manual, physical, and digital techniques. Students explore sketching, rendering, model-making, photography, and graphic design, enabling them to communicate architectural ideas effectively across multiple media. The emphasis is on learning by doing, encouraging experimentation with materials, tools, and visual techniques.

Teaching Pedagogy

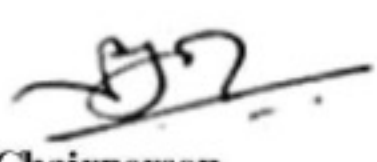
Code	Method
T1	Demonstration-based learning
T2	Hands-on studio exercises
T3	Material exploration workshops
T4	Digital tool training sessions
T5	Iterative making and prototyping
T6	Studio reviews and critiques

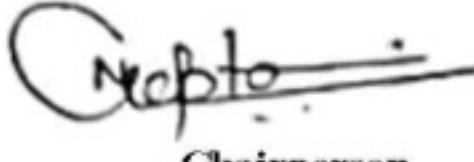
Assessment Tools

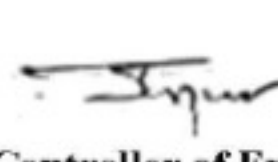
Code	Tool
AT1	Sketch exercises
AT2	Model-making assignments
AT3	Digital compositions
AT4	Photography documentation
AT5	Graphic design sheets
AT6	Portfolio submission + Viva

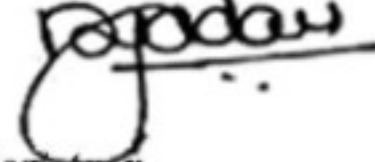
Course Information

Component	Details
Prerequisites	Basic representation skills from Architectural Graphics & Workshop – I
Mode of Delivery	Studio-Based Learning (Hands-on Workshops, Demonstrations, Practice Sessions, Reviews, Portfolio Development)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 208: Workshop -II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME										
						THEORY			STUDIO				L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS					
PAEC	SK	STUDIO	ARCH 208	WORKSHOP- II	Max				50	50	100					
					Min				23	23	46			2	2	

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Course Contents:

Unit	Syllabus Topic	Subtopics	Teaching Hours	Assessment Tools
I	Sketching & Rendering	• Architectural rendering (plans, sections, elevations, views) • Building expressions and abstraction • Analytical diagrams and visual simplification	6 hrs	AT1 Sketch exercises
II	Model Making	• Model making using wood and mixed materials • Fabrication techniques • Scale, proportion, and detailing	6 hrs	AT2 Model-making assignments
III	Digital Representation	• Editing and composition tools (Photoshop, Illustrator) • Infographics and presentation layouts	6 hrs	AT3 Digital compositions
IV	Photography	• Basics of architectural photography • Lighting, composition, and framing • Model photography and documentation	6 hrs	AT4 Photography documentation
V	Graphic Design & Presentation	• Design of architectural presentation sheets • Office stationery design • Integration of graphics, text, and visuals	6 hrs	AT5 Graphic design sheets

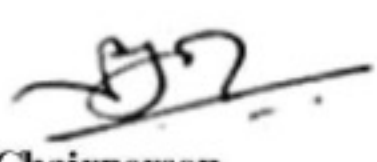
Course Delivery Framework

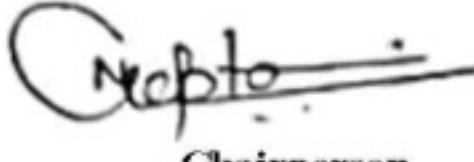
S. No.	Category	Component	Description
1	Sessional Work	Sketch Exercises	Freehand drawings and rendering sheets
		Model Making	Physical models using various materials
		Digital Work	Graphic compositions and layouts
		Photography	Documentation of models and spaces
		Portfolio	Compilation of all studio work
		Viva Voce	Evaluation of skills and understanding
2	Teaching Methodology	Demonstrations	Step-by-step skill development
		Studio Practice	Hands-on exercises
		Digital Sessions	Software-based learning
		Reviews	Continuous feedback and critique
3	Skills & Knowledge Transfer	Manual Skills	Sketching, rendering, crafting
		Material Understanding	Handling different materials
		Digital Skills	Graphic and visual tools
		Visual Communication	Presentation and composition
4	Course Emphasis	Craft & Making	Hands-on fabrication
		Visualisation	Representation techniques
		Integration	Combining manual + digital
		Presentation	Communication of ideas

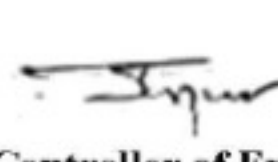
Additional Resources

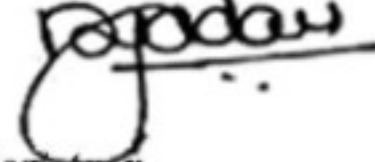
Value addition to course content/ Skill enhancement content:

- Workshops on freehand sketching, rendering techniques, perspective drawing, model making, photography, and visual communication.
- Exposure to traditional crafts, material exploration, handmade techniques, and architectural


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 208: Workshop -II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
PAEC	SK	STUDIO	ARCH 208	WORKSHOP- II	Max				50	50	100				
					Min				23	23	46			2	2

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

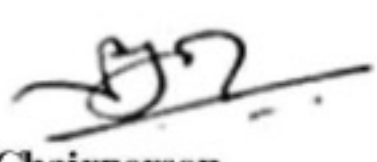
representation methods through hands-on studio activities.

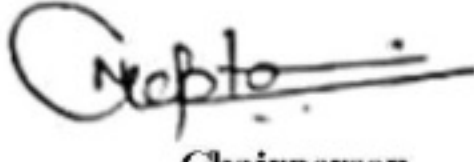
- Hands-on exercises in colour theory, composition, shading, lettering, presentation graphics, and architectural visualisation.
- Learning through live sketching sessions, outdoor documentation, craft-based explorations, and portfolio development exercises.
- Training in architectural representation through manual drafting, rendering techniques, digital visualisation, and mixed-media approaches.
- Exposure to photography, graphic communication, and visual storytelling as tools for architectural observation and documentation.
- Online learning modules on architectural graphics, visualisation techniques, design communication, and craft documentation through NPTEL, SWAYAM, and design platforms.
- Development of creativity, observational skills, presentation techniques, and interdisciplinary understanding through collaborative workshops and studio exercises.

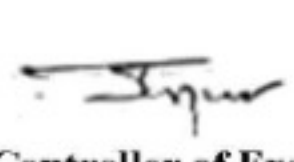
Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.

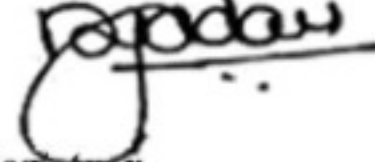
Suggested Readings:

Reference Books	Ching, F. D. K. (2015). <i>Architectural graphics</i> (6th ed.). Wiley. Ching, F. D. K., & Juroszek, S. P. (2010). <i>Design drawing</i> (2nd ed.). Wiley. Farrelly, L. (2008). <i>Representational techniques</i>. AVA Publishing. Jefferis, A., & Madsen, D. A. (2017). <i>Architectural drafting and design</i>. Cengage Learning. Doyle, M. E. (2002). <i>Colour drawing: Design drawing skills and techniques for architects, landscape architects, and interior designers</i> (2nd ed.). Wiley. Metzger, P. (2007). <i>The art of perspective: The ultimate guide for artists in every medium</i>. North Light Books. Poulin, R. (2012). <i>Graphic design + architecture: A 20th-century history</i>. Rockport Publishers. Mathew, D. J. (2014). <i>Principles of design through photography</i>. Wisdom Tree Publishers. Ranjan, A., & Ranjan, M. P. (2007). <i>Handmade in India</i>. Council of Handicraft Development Corporations. Jaitly, J. (2012). <i>Craft Atlas of India</i>. Niyogi Books. Guptill, A. L., & Meyer, S. E. (1997). <i>Rendering in pen and ink</i>. Watson-Guptill. Levinson, E. D. (2004). <i>Architectural rendering fundamentals</i>. McGraw-Hill.
Suggested e- resources (Websites/e-books)	• NPTEL – Architectural Graphics and Visual Representation • SWAYAM Portal • MIT OpenCourseWare – Architecture and Visual Studies • ArchDaily – Architectural representation, graphics, and design communication resources. • Dezeen – Contemporary design, visual culture, and architectural representation references. • Show It Better – Portfolios, graphics, rendering, and architectural storytelling. • 30X40 Design Workshop – Architectural sketching, workflows, studio processes, and presentation methods. • Arquí9 Visualisation – Architectural visualisation and rendering tutorials. • Blessed Arch – Architectural drawing, rendering, and visualisation tutorials. • Design Karanversation – Discussions on architecture, design thinking, and visual communication. • Learn Upstairs – Tutorials on design, architecture, graphics, and presentation techniques. • RIBApix – Architectural drawings, archival references, and visual documentation. • STIRworld – Architecture, design, visual culture, and craft-based explorations.


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 208: Workshop -II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
PAEC	SK	STUDIO	ARCH 208	WORKSHOP- II	Max				50	50	100				
					Min				23	23	46			2	2

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

- Matter – Indian architecture, craft, culture, and design discourse.
- Charles Correa Foundation – Architectural thinking, design culture, and educational initiatives

Course Articulation Matrix (Mapping of COs with POs)

Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	2	–	–	–	2	2	–	–	2	–	1	3	2	–
CO2	3	3	–	2	–	2	2	–	–	2	–	1	3	3	–
CO3	3	3	2	–	–	1	2	–	–	2	–	1	3	3	–
CO4	3	3	2	2	–	1	2	–	–	2	–	1	3	3	–
CO5	3	3	2	2	–	2	2	–	–	2	–	1	3	3	1
CO6	3	2	–	–	–	2	2	–	–	2	–	1	3	2	–

Assessment Scheme

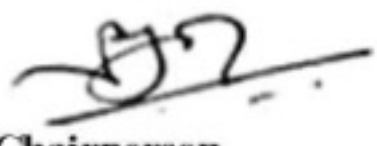
Component	Method	COs Mapped	Weightage
Assignments / Exercises	Sketch + digital + model tasks	CO1, CO2, CO3	20%
Model Making	Fabrication + material exploration	CO2	20%
Digital & Graphic Work	Software-based outputs	CO3, CO5	15%
Photography Assignment	Documentation	CO4	10%
Portfolio Submission	Compilation of all work	CO1–CO5	25%
Viva / Presentation	Oral + visual	CO4, CO5	10%

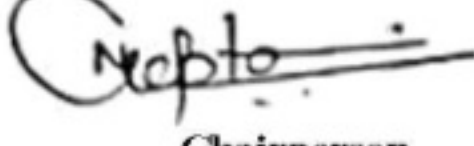
Evaluation Rubrics (Studio)

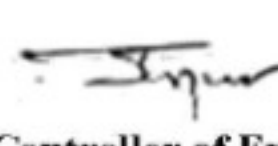
Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
Craftsmanship	Highly refined and precise	Minor flaws	Basic finish	Poor execution
Material Handling	Innovative and appropriate	Good usage	Limited understanding	Incorrect usage
Visual Communication	Clear and impactful	Understandable	Basic clarity	Confusing
Creativity	Original and expressive	Some innovation	Limited ideas	No originality
Technical Skills	Accurate and well-developed	Minor errors		Weak
Presentation	Professional and structured	Minor gaps	Basic	Disorganised

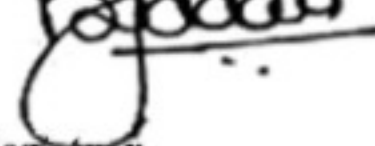
Submission Structure (Suggested)

- 4–5 Sketch sheets (A2/A3)
- 2 Model-making assignments
- 2 Digital composition sheets


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 208: Workshop -II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO		TOTAL MARKS	L	T		S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
PAEC	SK	STUDIO	ARCH 208	WORKSHOP- II	Max				50	50	100				
					Min				23	23	46			2	2

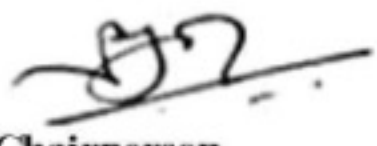
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

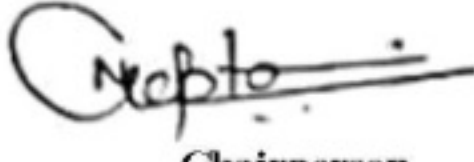
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

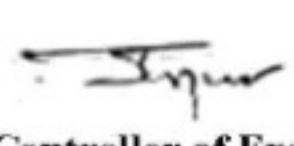
- 1 Photography documentation set
- 1 Graphic design sheet
- Final Portfolio + Viva

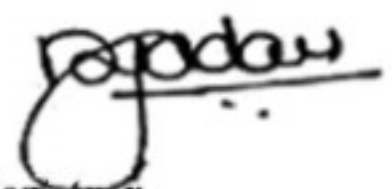
Studio Components & Suggested Assignments

Component	Assignment Type	Output Format
Sketching & Rendering	Freehand drawings, tonal rendering, architectural views	A2/A3 sheets
Model Making	Physical model (wood / mixed materials) + process work	Physical model + sheets
Material Exploration	Study of materials, joints, and textures	Process sheets/samples
Digital Representation	Image editing, composition, and infographics	Digital sheets (A2/A3)
Photography	Model photography, lighting and composition study	Photo sheets/portfolio
Graphic Design	Layout design, office stationery, presentation sheets	A2 sheet
Process Documentation	Step-by-step making, sketches, iterations	File/portfolio
Conceptual Understanding	Short notes on materials/techniques	500–800 words
Presentation	Jury / Viva	Oral + portfolio


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav institute of Architecture
Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
1ST YEAR / II Semester

ARCH 209: Building Systems and Services -II Water Supply & Sanitation

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					
BS&AE	TE	THEORY	ARCH 209	BUILDING SYSTEMS AND SERVICES-II (WATER SUPPLY & SANITATION)	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

ARCH 209: Building Systems and Services -II Water Supply & Sanitation

Course Educational Objectives (CEOs):

S. No.	Course Educational Objective (CEO)	Bloom's Level	Domain
CEO1	To understand principles of water supply systems, sources, and treatment methods	Understand (L2)	Cognitive
CEO2	To develop knowledge of sanitation, drainage, and waste management systems in buildings	Understand–Apply (L2–L3)	Cognitive
CEO3	To enable the preparation of plumbing layouts and service integration in architectural design	Apply (L3)	Cognitive Psychomotor +
CEO4	To sensitise students towards sustainable water management and resource conservation	Understand (L2)	Cognitive Affective +

To introduce students to various ways to present the principles and components of water supply and sanitation systems.

Course Alignment with UNSDG

This course contributes to:

- **SDG 6 – Clean Water and Sanitation**
- **SDG 11 – Sustainable Cities and Communities**
- **SDG 12 – Responsible Consumption and Production**

By promoting efficient water use, sanitation planning, and sustainable infrastructure systems.

Course Alignment with IKS and AI:

This course introduces students to traditional Indian water management systems, indigenous water conservation methods, rainwater harvesting practices, vernacular drainage solutions, and sustainable sanitation approaches. It highlights how traditional settlements managed water resources efficiently through climate-responsive and community-based systems, offering valuable lessons for contemporary environmental planning.

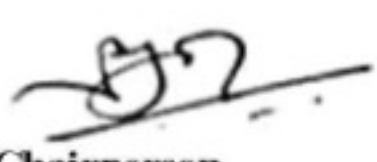
This course provides an introductory overview of digital and AI-assisted tools for water demand estimation, plumbing system planning, drainage analysis, stormwater management, and sustainable resource management. Students develop awareness of data-driven design approaches, simulation tools, and smart water management technologies that support efficient and sustainable building services planning.

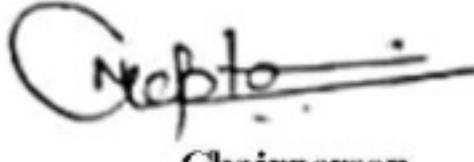
Course outcomes (COs):

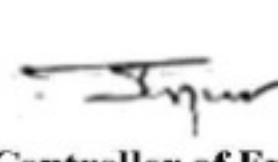
At the end of the course, students will be able to

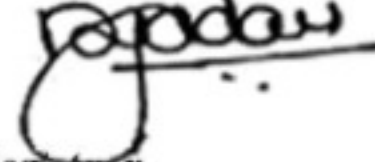
CO	Outcome	Bloom	SDG
CO1	Identify water sources, treatment methods, and potable water standards	L2 (Understand) Cognitive	SDG 6
CO2	Estimate water demand and design basic water supply systems	L3 (Apply) Cognitive + Psychomotor	SDG 6
CO3	Prepare plumbing layouts and distribution systems for buildings	L3 (Apply) Cognitive + Psychomotor	SDG 11
CO4	Analyse drainage, sanitation, and stormwater systems	L4 (Analyse) Cognitive	SDG 6, 11
CO5	Integrate rainwater harvesting, waste management, and sustainability strategies.	L4 (Analyse) Cognitive	SDG 6, 12

Course Focus	• Water supply systems and plumbing design • Sanitation and drainage systems • Stormwater management and rainwater harvesting • Solid waste management
--------------	---


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 209: Building Systems and Services -II Water Supply & Sanitation

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME							L	T	S	CREDITS
						THEORY			STUDIO		TOTAL MARKS					
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
BS&AE	TE	THEORY	ARCH 209	BUILDING SYSTEMS AND SERVICES-II (WATER SUPPLY & SANITATION)	Max	50	20	30			100	2			2	
					Min	23	9	14			46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	Integration of services in architectural design
Experiential learning	Students learn through site visits, field documentation, case study analysis, service-system observation, plumbing and drainage layout exercises, and diagrammatic interpretation of water supply and sanitation systems. Learning is reinforced by observing water storage, plumbing networks, drainage systems, rainwater harvesting, sewage treatment, and waste-management practices in buildings and settlements. These activities help students connect theoretical principles with real building services and develop a practical understanding of resource conservation, sanitation, service integration, and sustainable water management.
Course Overview:	The course introduces building-level water supply and sanitation systems as essential components of architectural design. It focuses on principles, planning, and integration of plumbing, drainage, and waste systems within buildings and sites. The course emphasises sustainable practices, efficient resource use, and practical, drawing-based understanding. Understanding the significance, design, and functioning of water and sewerage systems as essential components in building design and site planning.

Course Overview:

Teaching Pedagogy

Code	Method
T1	Concept-based lectures
T2	Plumbing and service drawings
T3	Case study discussions
T4	Site visits and field documentation
T5	Diagrammatic learning
T6	Studio-based exercises

Assessment Tools

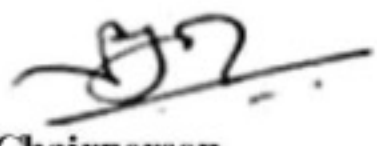
Code	Tool
AT1	Plumbing drawings
AT2	Service layout sheets
AT3	Case study analysis
AT4	Site visit reports
AT5	Portfolio submission
AT6	Viva voce

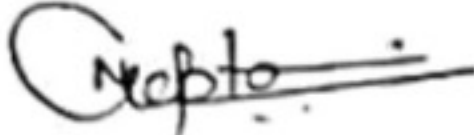
Course Information

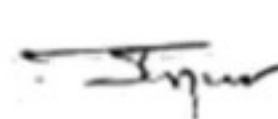
Component	Details
Prerequisites	Basic understanding from Building Systems – I
Mode of Delivery	Theory + Drawing Studio (Lectures, Plumbing Drawings, Case Studies, Site Visits, Service Layout Exercises)

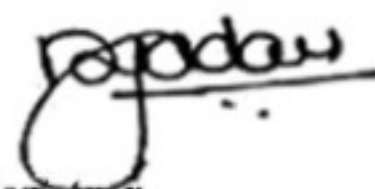
Course Contents:

Unit	Syllabus Topic	Subtopics	Teaching Hours	Assessment Tools
I	Water Supply & Plumbing	- Sources of water and treatment methods - Potable water standards - Storage	6 hrs	AT1, Plumbing AT2


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 209: Building Systems and Services -II Water Supply & Sanitation

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME							L	T	S	CREDITS
						THEORY			STUDIO		TOTAL MARKS					
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
BS&AE	TE	THEORY	ARCH 209	BUILDING SYSTEMS AND SERVICES-II (WATER SUPPLY & SANITATION)	Max	50	20	30			100	2			2	
					Min	23	9	14			46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

		systems (overhead & underground tanks) • Water supply systems in low, medium & high-rise buildings • Plumbing symbols, codes & standards		drawings;Service layout sheets
II	Sanitation	• Principles of sanitation systems • Plumbing drawings and fixtures • Internal sanitary layouts • Ventilation and traps	6 hrs	AT1 Plumbing drawings
III	Drainage Systems	• Principles of drainage • Types of waste: sullage, sewage, stormwater • Manholes, grease traps • Drainage layouts • Septic tanks and soak pits (non-municipal areas)	6 hrs	AT2, AT3 Service layout sheets ;Case study analysis
IV	Rainwater Water Management &	• Rainwater harvesting systems • Water demand calculation • Plumbing system design • Case studies and design exercises	6 hrs	AT2, AT3 Service layout sheets;Case study analysis
V	Solid Waste & Integrated Services	• Solid waste management systems • Waste segregation and disposal • Introduction to fire-fighting plumbing • Service integration in buildings	6 hrs	AT3, AT4 Case study analysis;Site visit reports

Course Delivery Framework

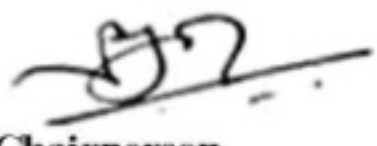
S. No.	Category	Component	Description
1	Sessional Work	Plumbing Layout Sheets	Water supply, sanitation, and drainage layouts for buildings
		Service Diagrams	Water flow, drainage flow, rainwater harvesting, and waste systems
		Case Studies	Study of real building service systems (residential/institutional)
		Site Visit Documentation	Field observations of water supply and sanitation systems
		Portfolio Submission	Compilation of all drawings, diagrams, and reports
2	Teaching Methodology	Conceptual Lectures	Principles of water supply, sanitation, and drainage systems
		Drawing-Based Learning	Plumbing drawings, service layouts, and system diagrams
		Case-Based Learning	Analysis of real-life service installations
		Site Visits	Exposure to on-site systems (tanks, pipelines, STPs, etc.)
		Interactive Reviews	Design discussions and drawing critiques
3	Skills Transfer	Service Planning Skills	Ability to design water supply and sanitation layouts
		Technical Drawing Skills	Plumbing drawings and service integration
		Analytical Skills	Estimation of water demand and system selection
		Environmental Awareness	Understanding water conservation and waste management
4	Course Emphasis	System Integration	Coordination of water supply with building design
		Sustainability	Rainwater harvesting and recycling systems
		Hygiene & Safety	Sanitation and waste disposal systems
		Resource Efficiency	Water conservation and efficient distribution

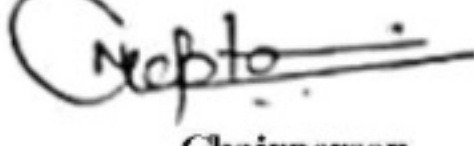
Additional Resources

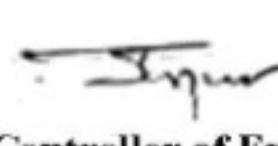
Value addition to course content/ Skill enhancement content:

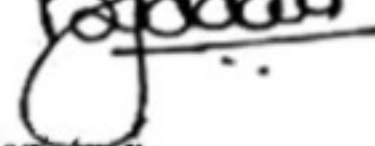
Workshops on water supply systems, plumbing layouts, sanitation networks, drainage systems, and fire safety services in buildings.

- Exposure to building services through case studies, service drawings, site visits to water treatment plants, sewage treatment facilities, and service installations in buildings.


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 209: Building Systems and Services -II Water Supply & Sanitation

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO		TOTAL MARKS	L	T		S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					
BS& AE	TE	THEORY	ARCH 209	BUILDING SYSTEMS AND SERVICES-II (WATER SUPPLY & SANITATION)	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

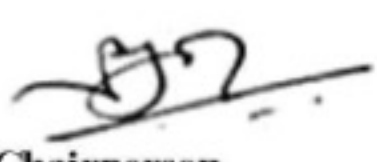
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

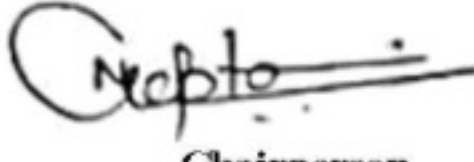
- Hands-on exercises in preparation of plumbing drawings, sanitary layouts, drainage details, and water supply schematics.
- Learning through practical demonstrations of piping systems, rainwater harvesting, water conservation methods, and sustainable sanitation technologies.
- Exposure to climate-responsive and environmentally sensitive building service systems through traditional and contemporary practices.
- Online learning modules on environmental engineering, plumbing systems, fire safety, water management, and sanitation technologies through NPTEL and SWAYAM.
- Development of technical understanding of public health engineering, water conservation, environmental sustainability, and integrated building service systems.
- Integration of indigenous water management systems, traditional conservation practices, and sustainable environmental approaches within architectural services.

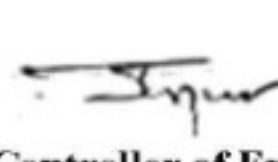
Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.

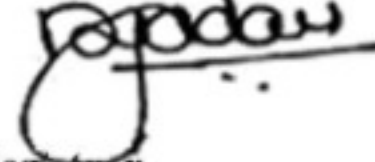
Suggested Readings:

Reference Books	A. Kamala & DL Kanth Rao, Environmental Engineering, Tata McGraw–Hill Publishing Company Limited. Charanjit Shah, Water supply and sanitary engineering, Galgotia Publishers. E.G. Butcher, Smoke control in Fire-safety Design. Husain, S.K. T.B. of Water Supply and Sanitary Engineering, 3rd Ed. Oxford and IBH Pub. Ltd., New Delhi, 1994. Kshirsagar, S.R. Water Supply Engineering, 6th Ed. Roorkee Pub., Roorkee, 1980. M. David Egan, Concepts in Building Fire Safety. National Building Code 2005. S.C. Rangwala, Water supply and sanitary engineering, Charotar Publishing House. Technical Teachers Training Institute (Madras), Environmental Engineering, Tata McGraw-Hill Publishing Company Limited. V.K. Jain, Fire Safety in Building; Olgay, Victor. Design with Climate: Bio-Climatic Approach to Architectural Regionalism. New Jersey: Princeton University Press, 1963 Laureano. Water Conservation Techniques in Traditional Human Settlements. Ghaziabad: Copal, 2013 Water. London: Dorling Kindersley, 2006 Construction Technology Volume -1 & 2 - BY R. Chudly; Construction Technology Volume -1 & 2 BY R. Barry 18. Construction Technology - BY B.C. Punamiya; Building Construction Illustrated - Franis D.K. Ching
Suggested e- resources (Websites/e-books)	• NPTEL – Environmental Engineering • NPTEL – Water Supply Engineering and Sanitation • SWAYAM Portal • National Building Code of India (BIS) • Central Public Health and Environmental Engineering Organisation (CPHEEO) • Ministry of Jal Shakti • HUDCO Knowledge Resources


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 209: Building Systems and Services -II Water Supply & Sanitation

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME							CREDITS		
						THEORY			STUDIO		TOTAL MARKS	L		T	S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%					
BS&AE	TE	THEORY	ARCH 209	BUILDING SYSTEMS AND SERVICES-II (WATER SUPPLY & SANITATION)	Max	50	20	30			100	2			2
					Min	23	9	14			46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	- ArchDaily – Building Services and Sustainability - Dezeen – Sustainable Building Systems - The Constructor – Articles on plumbing systems, sanitation engineering, drainage, and building services. - The B1M – Infrastructure, water systems, engineering, and building services documentaries. - TERI – The Energy and Resources Institute – Sustainability, water management, and environmental engineering resources. - Indian Plumbing Association – Plumbing standards, water management, and sanitation resources. - UN Water – Global resources on water conservation, sanitation, and sustainable development.
--	---

Course Articulation Matrix (Mapping of COs with POs)

Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	3	–	–	–	3	3	–	–	2	–	1	3	3	–
CO2	3	3	–	2	2	3	3	–	–	2	–	1	3	3	–
CO3	3	3	2	2	2	2	3	–	–	2	–	1	3	3	–
CO4	3	3	2	3	2	2	3	–	–	2	–	1	3	3	–
CO5	3	3	2	3	2	3	3	–	–	2	–	1	3	3	1
CO6	3	2	–	–	2	3	3	–	–	2	–	1	3	2	–

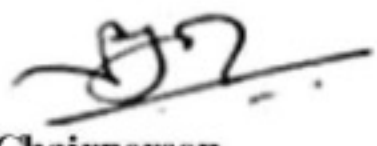
Assessment Scheme

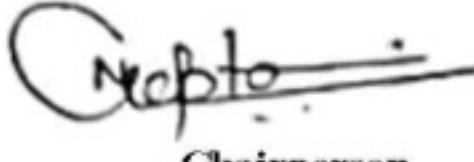
Component	Method	COs Mapped	Weightage
Assignments / Quizzes	Conceptual + numerical problems	CO1, CO2	15%
Service Drawings	Plumbing layouts, drainage plans	CO3, CO4	20%
Case Study	Building services analysis	CO5	15%
Mid-Sem Exam	Theory + diagrams	CO1, CO3	20%
Final Exam	Comprehensive (theory + application)	CO1–CO5	20%
Viva / Presentation	Oral + drawing explanation	CO4, CO5	10%

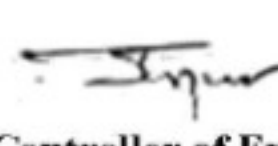
Evaluation Rubrics (Services-Oriented)

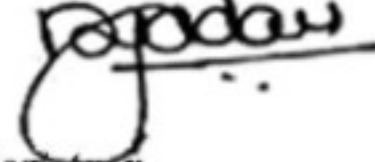
Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
Conceptual Understanding	Strong clarity of systems	Clear understanding	Basic knowledge	Weak understanding
Drawing Accuracy	Precise and detailed layouts	Minor errors	Basic drawings	Incorrect drawings
System Integration	Well-coordinated services	Moderate integration	Limited coordination	No integration
Application	Practical and realistic solutions	Adequate	Basic	Not applicable
Case Study	Insightful analysis	Adequate	Basic	Weak
Presentation	Clear and structured	Minor gaps	Basic	Poor

Submission Structure (Suggested)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav institute of Architecture
 Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
1ST YEAR / II Semester

ARCH 209: Building Systems and Services -II Water Supply & Sanitation

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME							L	T	S	CREDITS
						THEORY			STUDIO		TOTAL MARKS					
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30 % OR 20%	END SEM University Viva 3Voice Exam 50% OR 20%	Teachers Assessment* 50%						
BS&AE	TE	THEORY	ARCH 209	BUILDING SYSTEMS AND SERVICES-II (WATER SUPPLY & SANITATION)	Max	50	20	30			100	2			2	
					Min	23	9	14			46					

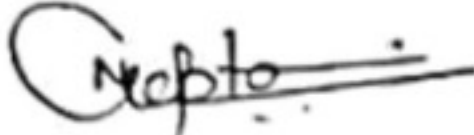
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

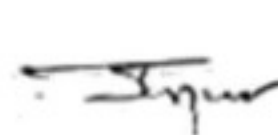
- 4–5 Service Layout Sheets (A2/A3)
- 2–3 System Diagrams (water flow, drainage, RWH, waste flow)
- 1 Plumbing Layout Drawing (complete building)
- 1 Case Study Sheet (building services)
- Site Visit Report / Field Notes
- Final Portfolio + Viva Voce

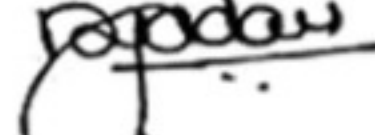
Theory Components & Suggested Assignments

Component	Assignment Type	Output Format
Water Supply Systems	Demand calculation + system diagram	A2/A3 sheet
Plumbing Design	Layout planning (toilets, kitchens, shafts)	A2 sheet
Drainage Systems	Drainage layout + manhole design	A2 sheet
Sanitation	Plumbing drawings + waste flow diagrams	A2 sheet
Rainwater Harvesting	System design + calculation	A2 sheet
Solid Waste Management	System mapping + flow diagram	A2 sheet
Case Study	Building services analysis	A2 sheet
Conceptual Understanding	Short notes	800–1000 words
Presentation	Viva/explanation	Oral + drawings


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 210: Internship – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO			L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS					
SEC	SU	INTERNSHIP	ARCH 210	INTERNSHIP I	Max				00	00	00				0	0
					Min				00	00	00					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

ARCH 210: Internship – I

Summer Internship: 4-5 Weeks (6 Hours/Day)

Course Educational Objectives (CEOs):

S. No.	Course Educational Objective (CEO)	Bloom's Level	Domain
CEO1	To expose students to professional practice and real-world architectural processes	Understand (L2)	Cognitive
CEO2	To develop awareness of workplace dynamics, ethics, and professional responsibilities	Understand (L2)	Affective
CEO3	To enable the application of academic knowledge in practical office settings	Apply (L3)	Cognitive + Psychomotor
CEO4	To encourage reflective learning and career orientation through professional exposure	Analyse (L4)	Cognitive

Course Alignment with UNSDG

This course contributes to:

SDG 4 – Quality Education

SDG 8 – Decent Work and Economic Growth

SDG 11 – Sustainable Cities and Communities

By exposing students to professional environments, ethical practices, and real-world design and planning challenges.

Course Alignment with IKS and AI:

This course familiarises students with traditional professional values, apprenticeship-based learning systems, ethical practices, collaborative working methods, and context-responsive approaches embedded within Indian architectural traditions. It encourages learning through observation, participation, documentation, and reflective practice, while building an understanding of the architectural profession's social responsibilities.

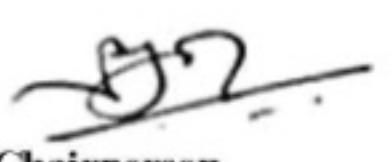
This course provides exposure to contemporary digital and AI-assisted tools used in architectural practice, including CAD/BIM platforms, project coordination systems, digital documentation, presentation tools, portfolio development, and workflow management. Students develop awareness of emerging technologies that support professional communication, project delivery, collaboration, and practice management.

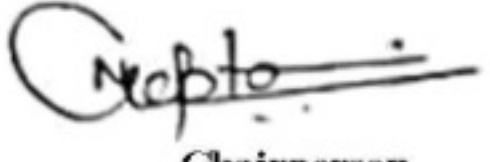
Course outcomes (COs):

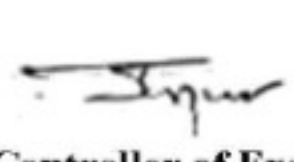
At the end of the course, students will be able to

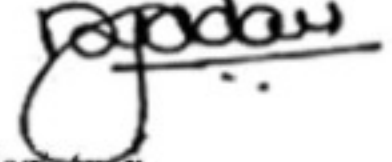
CO	Outcome	Bloom	SDG
CO1	Understand professional practice, office structure, and workflow	L2 (Understand) Cognitive	SDG 8
CO2	Apply academic knowledge in real projects and tasks	L3 (Apply) Cognitive + Psychomotor	SDG 11
CO3	Demonstrate professional communication (verbal, graphical, written)	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO4	Analyse workplace culture, ethics, and interdisciplinary coordination	L4 (Analyse) Cognitive	SDG 8
CO5	Critically reflect on the learning experience and career direction	L4 (Analyse) Cognitive	SDG 4
CO6	Document and present internship work professionally	L3 (Apply) Cognitive + Psychomotor	SDG 4

Course Focus	- Professional exposure and office experience - Application of academic knowledge in practice
---------------------	--


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 210: Internship – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
SEC	SU	INTERNSHIP	ARCH 210	INTERNSHIP I	Max				00	00	00			0	0
					Min				00	00	00				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

	- Workplace ethics and communication - Interdisciplinary coordination - Reflective and analytical learning
Experiential Learning	Students learn through direct professional exposure, participation in live projects, observation of office workflows, site visits, documentation, and reflective practice. Learning is reinforced through involvement in design development, drafting, presentations, project coordination, client interactions, and construction-related activities wherever applicable. Students maintain a logbook and document their work, observations, and learning, enabling them to connect academic knowledge with professional practice, workplace ethics, communication, teamwork, and interdisciplinary collaboration.
Course Overview:	This course allows students to work in a professional environment, such as an architectural firm, planning office, or related organisation. Students participate in ongoing projects, gaining exposure to various stages including concept design, development, documentation, and presentation. The course emphasises learning through experience and encourages students to reflect critically on professional practices, organisational structures, cultural contexts, and their personal growth.

Teaching Pedagogy

Code	Method
T1	Experiential learning (office-based work)
T2	Reflective documentation and writing
T3	Professional interaction and observation
T4	Case-based exposure (live projects)
T5	Guided evaluation (faculty + professional mentor)

Assessment Tools

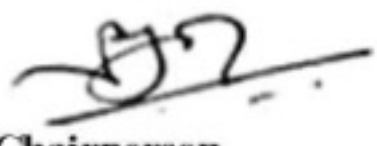
Code	Assessment Tool
AT1	Internship Logbook / Field Diary
AT2	Internship Report
AT3	Portfolio Submission
AT4	Employer / Supervisor Evaluation
AT5	Case Study / Project Documentation
AT6	Viva Voce

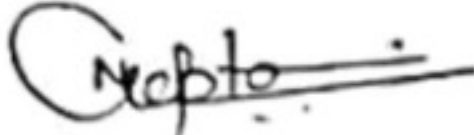
Course Information

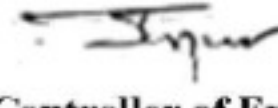
Component	Details
Prerequisites	Completion of foundational design, construction, and representation courses (up to Semester IV)
Mode of Delivery	Professional Training (Field-based learning, Office Work, Documentation, Reflective Analysis)
Duration	4–5 Weeks (Summer Internship) – Minimum 30 hours/week

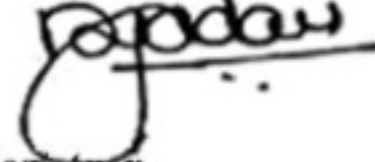
Course Contents:

Unit	Syllabus Topic	Subtopics	Duration	Assessment Tools
------	----------------	-----------	----------	------------------


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 210: Internship – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME										
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%						
SEC	SU	INTERNSHIP	ARCH 210	INTERNSHIP I	Max				00	00	00				0	0
					Min				00	00	00					

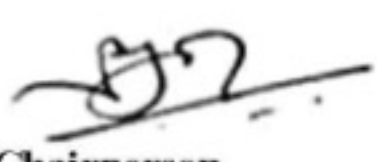
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

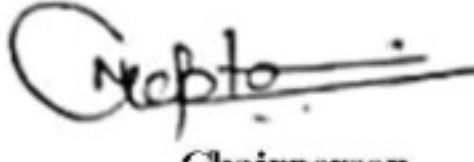
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

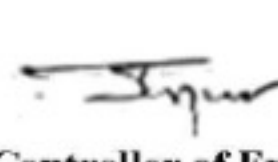
I	Internship Overview & Orientation	- Understanding internship objectives and expectations - Selection of organisation and role - Exposure to professional environment - Participation in design stages (concept to presentation) - Office functioning: meetings, coordination, administration	Week 1	AT1, Internship Logbook / Diary AT4 Field Diary
II	Analytical Approach & Documentation Framework	- Developing critical thinking and questioning approach - Methods of investigation (office + research + self-reflection) - Structuring internship report (outline, headings, sections) - Academic writing and documentation methods	Week 1–2	AT1, Internship Logbook / Diary AT2 Field Diary ; Internship Report
III	Organisation & Sector Study	- Understanding organisation structure and workflow - Nature of projects and services - Analysis of strengths, challenges, and context - Position of firm within professional domain (<i>Analytical third-person documentation</i>)	Week 2	AT2, Internship Report; Case Study / Project Documentation AT5
IV	Professional Intercultural Experience &	- Tasks, roles, and responsibilities undertaken - Skills developed (design, communication, software, coordination) - Workplace ethics and professional conduct - Intercultural exposure and adaptation - Learning through collaboration and practice	Week 3–4	AT1, AT3, AT4 Internship Logbook / Field Diary; Portfolio Submission ; Employer / Supervisor Evaluation

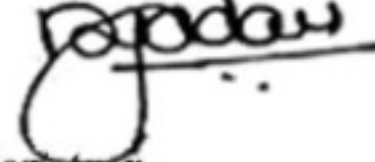
Course Delivery Framework

S. No.	Category	Component	Description
1	Sessional Work	Internship Logbook / Field Diary	Daily/weekly record of tasks, observations, sketches, and learning during internship
		Bi-weekly Reports	Periodic submission documenting progress, work exposure, and reflections
		Internship Report	Comprehensive documentation (organisation study, professional work, intercultural experience, reflection) (~15 pages)
		Case Study	Analytical study of one building/project observed during internship
		Portfolio Submission	Compilation of drawings, documentation, and work produced during internship
		Viva Voce	Final oral examination assessing understanding and professional learning
2	Guidelines	Internship Approval	Internship placement to be finalised and approved at least 15 days before commencement
		Duration & Work Hours	Minimum 4–5 weeks (summer), approx. 30 hours/week (Monday–Saturday)


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 210: Internship – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME							CREDITS		
						THEORY			STUDIO		TOTAL MARKS	L		T	S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
SEC	SU	INTERNSHIP	ARCH 210	INTERNSHIP I	Max				00	00	00			0	0
					Min				00	00	00				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

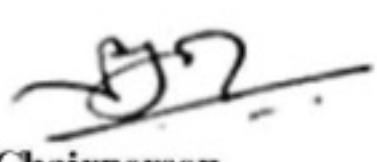
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

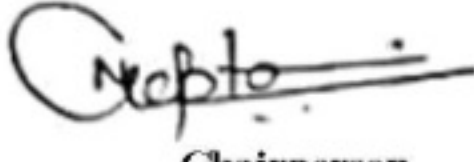
		Supervision	Internship must be under a qualified professional (Architect/Planner/Engineer/LA)
		Application Process	Submission of 2 copies of the Internship Application before joining
		Nature of Work	Minimum 50% office/design-based work required
		Special Cases	NGOs, design-build, or non-conventional internships require prior approval.
3	Employment Requirements	Work Exposure	Participation in design stages, documentation, meetings, and site visits
		Internship Flexibility	May extend to 6–8 weeks, depending on opportunity
		Incomplete Provision	If an internship is not secured, extension may be granted as per the institute norms.
4	Assignments	Logbook	Mandatory maintenance of the field observation record
		Reports	Submission of bi-weekly reports during internship
		Internship Report	Final structured report including all learning components
		Case Study	Documentation and analysis of one project/building
		Additional Submissions	Short paper, brochure, panel display, mentoring activity (if assigned)
5	Evaluation	Evaluation Mode	External Viva Voce based on submitted work
		Evaluation Stages	Proposal → Continuous assessment → Final submission → Viva
		Submission Components	Logbook, report, portfolio, case study
6	Academic Integrity	Ethics	Zero tolerance for plagiarism, misconduct, or unethical practices
7	Attendance & Penalties	Attendance	Absences lead to grade deduction; >3 unexcused = Fail
		Submission Rules	Late submission penalties; non-submission = zero marks
		Plagiarism	Leads to failure in the assignment/course

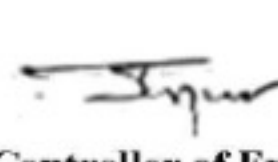
Additional Resources

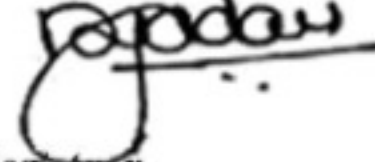
Value addition to course content/ Skill enhancement content:

- Exposure to professional architectural practice through internship training in architectural firms, construction sites, consultancy offices, and allied professional environments.
- Hands-on learning in office procedures, drafting standards, working drawings, model making, presentation techniques, and documentation practices.
- Practical understanding of architectural workflows, consultant coordination, client interactions, and project management processes.
- Exposure to building construction practices, site supervision methods, material applications, and execution procedures through field experience.
- Learning through participation in design development, preparation of drawings, case studies, site visits, and professional meetings.
- Development of communication skills, teamwork, time management, ethical practice, and professional responsibility within architectural practice.
- Online learning modules on professional practice, digital drafting, BIM workflows, project management, and architectural communication through NPTEL, SWAYAM, and professional


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 210: Internship – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS				
SEC	SU	INTERNSHIP	ARCH 210	INTERNSHIP I	Max				00	00	00			0	0
					Min				00	00	00				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

- Exposure to contemporary architectural discourse, emerging technologies, sustainability practices, and interdisciplinary collaboration through lectures, webinars, and architectural forums.

Remedial classes for slow learners: As per institutional academic support and mentoring guidelines for slow and advanced learners.

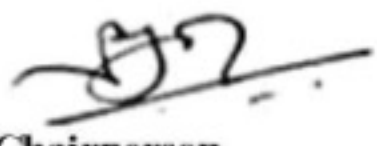
Suggested Readings:

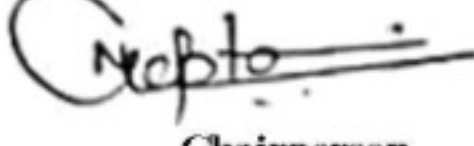
Reference Books	Architectural Practice – Chappell, D., & Willis, A. (2010). The architect in practice. Wiley-Blackwell. Professional Practice for Architects and Project Managers – Hughes, H., & Champion, R. (2011). Professional practice for architects and project managers. Routledge. The Professional Practice of Architectural Working Drawings – Wakita, O. A., & Linde, R. M. (2011). The professional practice of architectural working drawings (4th ed.). Wiley. Architectural Graphic Standards – The American Institute of Architects. (2016). Architectural graphic standards. Wiley. Time-Saver Standards for Building Types – De Chiara, J., et al. Time-saver standards for building types. McGraw-Hill. Building Construction Illustrated – Ching, F. D. K. (2014). Building construction illustrated. Wiley. Architectural Graphics – Ching, F. D. K. (2015). Architectural graphics. Wiley. The Handbook of Architectural Practice – Royal Institute of British Architects. The handbook of architectural practice. RIBA Publishing. Project Management for Construction – Hendrickson, C. (2008). Project management for construction. Carnegie Mellon University. Professional Practice – Namavati, R. (2013). Professional practice. Lakhani Book Depot.
Suggested e- resources (Websites/e-books)	• Council of Architecture (COA) • Indian Institute of Architects (IIA) • NPTEL – Professional Practice and Construction Management • SWAYAM Portal • ArchDaily – Professional projects, office practices, detailing, and architectural case studies. • Dezeen – Contemporary architecture, practice-based discussions, and industry updates. • RIBA Insights and Resources • The Architectural Review • The B1M – Construction processes, project execution, and engineering systems. • 30X40 Design Workshop – Studio workflows, professional processes, detailing, and architectural practice insights. • Show It Better – Portfolios, representation methods, and professional presentation skills. • Harvard GSD – Lectures and discussions on architectural practice, research, and urbanism. • STIRworld – Contemporary architectural discourse, practice, and design innovation. • Matter – Indian architecture, professional practice, and cultural discourse.

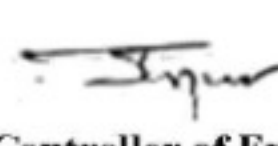
Approved Internship Organisations

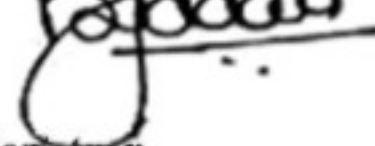
Students may undertake internships in the following:

1	Architectural & Design Firms	• Architecture studios (small/medium/large scale) • Interior design firms • Urban design studios
2	Planning & Government Bodies	• Urban local bodies / municipal corporations • Development authorities • Smart City Mission offices • Town planning departments
3	Engineering & Consultancy Firms	• Structural consultants • MEP (services) consultants • Project management consultants


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 210: Internship – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%						
SEC	SU	INTERNSHIP	ARCH 210	INTERNSHIP I	Max				00	00	00				0	0
					Min				00	00	00					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

4	NGOs & Social Sector	- Housing NGOs - Rural development organisations - Environmental and sustainability NGOs
5	Research & Academic Organisations	- Research institutes - Documentation centres - Heritage conservation bodies
6	Creative & Allied Fields	- Exhibition design studios - Set design/film production design - Product/furniture design studios - Craft-based organisations/artisan clusters

Course Articulation Matrix (Mapping of COs with POs)

Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	2	2	–	–	–	2	2	1	–	2	–	1	2	2	–
CO2	2	3	–	2	–	2	2	1	–	3	–	1	2	3	–
CO3	2	3	2	2	1	2	2	1	–	3	–	1	3	3	–
CO4	2	3	2	2	1	2	2	2	–	3	–	1	3	3	1
CO5	2	3	2	2	–	2	2	2	–	3	–	1	3	3	1
CO6	2	2	–	–	–	2	2	2	–	2	–	2	2	2	–

Assessment Scheme

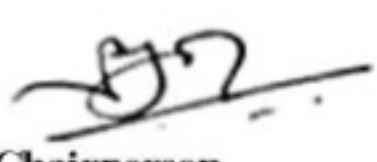
Component	Method	COs Mapped	Weightage
Internship Report	Documentation + analysis	CO1, CO4, CO5	25%
Portfolio	Drawings + work output	CO2, CO6	20%
Weekly Logbook	Continuous assessment	CO1, CO2	15%
Employer Evaluation	Professional feedback	CO3, CO4	15%
Viva Voce	Oral + portfolio presentation	CO3, CO5, CO6	25%

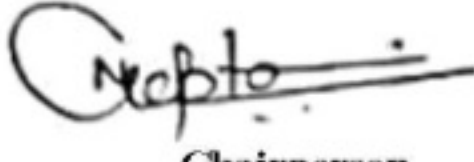
Evaluation Rubrics

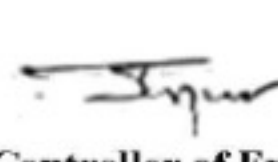
Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
Professional Understanding	Deep insight	Clear	Basic	Weak
Documentation	Detailed & structured	Minor gaps	Basic	Poor
Application	Strong real-world link	Moderate	Limited	None
Reflection	Critical & meaningful	Adequate	Basic	Weak
Communication	Professional clarity	Minor issues	Basic	Poor

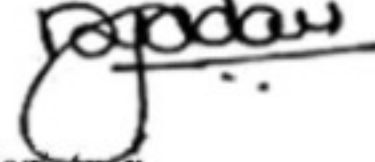
Submission Structure (Suggested)

- Internship Logbook (weekly reports)
- 1 Detailed Internship Report (10–15 pages)
- 1 Project Case Study (drawings + explanation)


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 210: Internship – I

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME										
						THEORY			STUDIO			L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers' Assessment* 30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%	TOTAL MARKS					
SEC	SU	INTERNSHIP	ARCH 210	INTERNSHIP I	Max				00	00	00				0	0
					Min				00	00	00					

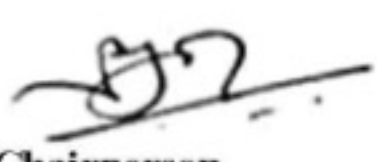
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

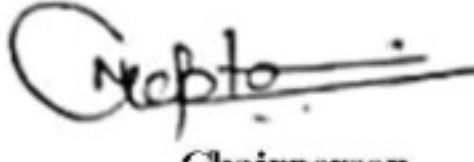
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component does not exceed 10 marks.

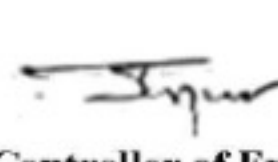
- Portfolio of work (drawings/models/photos)
- Reflective Essay
- Final Presentation + Viva

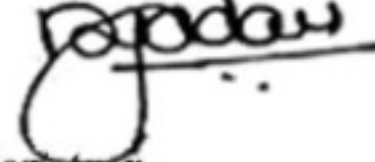
Important Academic Guidelines

- Internship must be under a **qualified professional (Architect/Planner/Engineer)**
- Minimum **4–5 weeks full-time engagement**. At least **50% work must be design/office-based**. Site-only or labour-based work is **not permitted**.
- Bi-weekly reporting mandatory
- Academic integrity is strictly enforced.


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav institute of Architecture
Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME							CREDITS		
						THEORY			STUDIO		TOTAL MARKS	L		T	S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100			2	2
					Min				00	46	46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

ARCH 219: Elective – II

2 Sem		Elective- II
	219.1	Ergonomics
	219.2	Architecture And Human Behaviour
	219.3	Advanced Computing Techniques In Design
	219.4	MOOC: Build With Hunnarshala/Chaukat, Darwaza& Jharoka: Acedge

Course Educational Objectives (CEOs):

Overall nurturing of the student with issues in practice and the field beyond conventional classroom learning.

S. No.	CEO	Bloom's Level	Domain
CEO1	To expose students to specialised areas of architecture beyond the core curriculum.	Understand (L2)	Cognitive
CEO2	To develop practical, analytical, digital, behavioural, and professional skills through experiential learning.	Apply (L3)	Cognitive + Psychomotor
CEO3	To encourage interdisciplinary thinking and critical understanding of contemporary and traditional design issues.	Analyse (L4)	Cognitive
CEO4	To nurture professional awareness, creativity, innovation, and lifelong learning attitudes.	Understand–Apply	Affective

Course Alignment with UNSDG

This course contributes to:

SDG 4 – Quality Education
SDG 8 – Decent Work and Economic Growth
SDG 9 – Industry, Innovation and Infrastructure
SDG 11 – Sustainable Cities and Communities

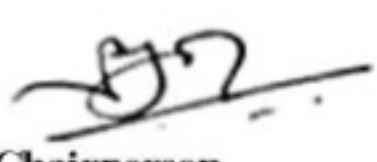
Course Alignment with IKS and AI:

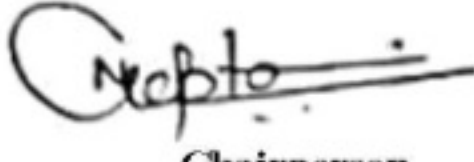
The course aligns with Indian Knowledge Systems (IKS) through the study of traditional knowledge systems related to human comfort, behaviour, crafts, and built environments, with emphasis on indigenous design practices, vernacular wisdom, traditional craftsmanship, architectural elements, and context-responsive design approaches. Learning is encouraged through observation, apprenticeship, field exposure, and experiential understanding. The course also integrates contemporary AI and digital technologies through AI-assisted design exploration and visualisation, behavioural mapping and data analysis platforms, digital documentation and presentation tools, computational design and simulation, and digital fabrication technologies, thereby connecting traditional knowledge with emerging tools and contemporary design practices.

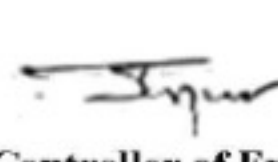
Course outcomes (COs):

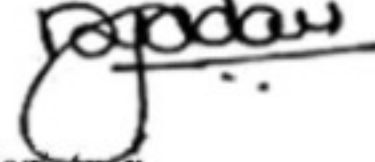
At the end of the course, students will be able to:

CO	Outcome	Bloom	SDG
CO1	Apply principles of ergonomics, human comfort, and anthropometrics to analyse and develop user-responsive architectural spaces and environments.	L3 (Apply) Cognitive + Psychomotor	SDG 4, 9
CO2	Apply behavioural and experiential approaches to understand the relationship between people, activities, and the built environment.	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO3	Analyse traditional, contemporary, and context-responsive architectural practices to identify their relevance to human behaviour, sustainability, and the built environment.	L4 (Analyse) Cognitive	SDG 11


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

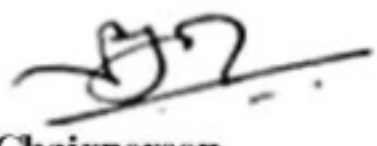
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO			L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%						TOTAL MARKS
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100				2	2
					Min				00	46	46					

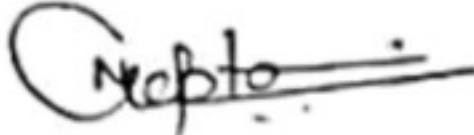
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

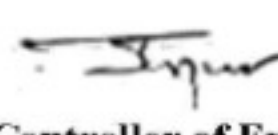
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

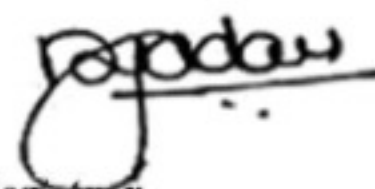
CO4	Apply advanced computing, AI-assisted design, digital documentation, simulation, and visualisation tools to explore and communicate architectural design solutions.	L3 (Apply) Cognitive + Psychomotor	SDG 4
CO5	Analyse emerging technological and indigenous design approaches to develop innovative, sustainable, and context-sensitive architectural responses.	L4 (Analyse) Cognitive	SDG 4, 11

Course Focus	- Human-centred design and ergonomics. - Behavioural and environmental studies. - Computational and digital design techniques. - Traditional building knowledge systems. - Experiential and skill-based learning. - Integration of traditional knowledge and emerging technologies.
Experiential Learning Component	This elective course adopts an experiential learning approach through workshops, field observations, demonstrations, digital explorations, case studies, hands-on exercises, documentation, and reflective learning. Depending on the selected elective, students engage directly with ergonomics, human behaviour, computational design tools, traditional building knowledge systems, or approved MOOCs, enabling learning through observation, experimentation, application, and critical reflection. Experiential Activities - Workshops and demonstrations - Field visits and observation studies - Behavioural mapping exercises - Ergonomic assessment studies - Computational modelling and digital exploration - Documentation and analysis exercises - MOOC-based learning activities - Mini-projects and case studies - Portfolio development - Presentations and reflective discussions Expected Learning Outcomes Through Experience - Develop practical and analytical skills through direct engagement. - Strengthen observation, documentation, and critical thinking abilities. - Understand traditional and contemporary approaches to design and construction. - Gain familiarity with digital tools, computational methods, and AI-assisted workflows. - Enhance communication, presentation, and portfolio development skills. - Apply experiential knowledge to architectural learning and design processes.
Course Overview	This elective course introduces students to specialised and interdisciplinary domains that complement architectural education. Through workshops, field studies, behavioural observations, computational explorations, traditional knowledge systems, and skill-based learning modules, students gain exposure to


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME								CREDITS	
						THEORY			STUDIO		TOTAL MARKS	L	T		S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100			2	2
					Min				00	46	46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

	ergonomics, architecture and human behaviour, advanced computing techniques, and vernacular building traditions. The course promotes experiential learning, critical inquiry, creativity, professional awareness, and lifelong learning beyond conventional architectural studios.
--	--

Teaching Pedagogy

Code	Method
T1	Studio-Based Experiential Learning
T2	Workshops and Demonstrations
T3	Field Documentation and Observation
T4	Digital Learning and Computational Exploration
T5	Collaborative Learning Activities
T6	Presentations, Reviews, and Reflective Discussions

Assessment Tools

Code	Assessment Tool
AT1	Process Journal / Learning Log
AT2	Practical Exercises / Workshop Outputs
AT3	Documentation Sheets / Reports
AT4	Portfolio Submission
AT5	Presentation / Viva Voce
AT6	Final Project / Demonstration

Course Information

Component	Details
Prerequisites	None (Foundation level / interest-based elective)
Mode	Studio / Workshop / Seminar / Hands-on Learning
Delivery	Practical Sessions, Workshops, Demonstrations, Case Studies, Interactive Learning Exercises, Field Exposure Activities, Digital Learning

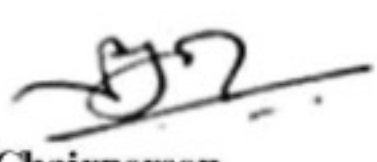
ELECTIVE OPTION 1

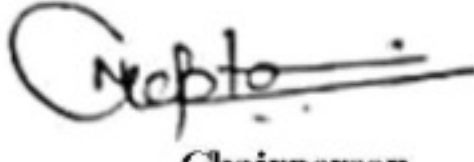
ARCH 219.1 Ergonomics

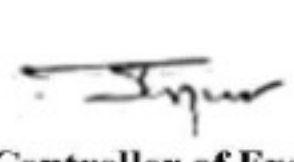
Course Overview	This elective introduces students to ergonomics, anthropometry, and human factors in design. The course focuses on understanding human dimensions, physical comfort, accessibility, inclusive design, and environmental ergonomics to improve the quality and usability of architectural spaces and products.
------------------------	---

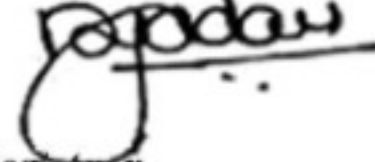
Course Contents

Unit	Syllabus Topic	Subtopics	Hours	Assessment
I	Introduction to Ergonomics	Human factors, ergonomics principles, human anatomy, comfort and usability	6	AT1 Process Journal / Learning Log
II	Anthropometry & Human Dimensions	Static and dynamic anthropometry, body measurements, reach and clearance studies	10	AT1, AT2 Process Journal / Learning Log ;Practical Exercises / Workshop Outputs
III	Ergonomics in Architecture & Interior Design	Furniture design, workspaces, circulation, accessibility standards	10	AT2, AT3 Practical Exercises / Workshop Outputs ; Documentation Sheets / Reports


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO			L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%						TOTAL MARKS
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100				2	2
					Min				00	46	46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

IV	Inclusive Design & Environmental Ergonomics	Universal design, disability, ageing, thermal comfort, lighting, acoustics	10	AT3, AT5 Documentation Sheets / Reports ;Presentation / Viva Voce
V	Ergonomic Design Project	Case study, analysis, design recommendations, portfolio and presentation	9	AT4, AT5, AT6 Portfolio Submission ;Presentation / Viva Voce ;Final Project / Demonstration

Studio Components & Suggested Work

Component	Studio Work	Output Format
Anthropometric Study	Human measurements and dimensional analysis	Data Sheets
Furniture Analysis	Evaluation of existing furniture and workspace design	Analytical Drawings
Accessibility Audit	Study of public buildings for inclusivity	Audit Report
Human Activity Mapping	User movement and activity analysis	Diagrams
Workspace Design	Ergonomic workplace planning	Design Sheets
Environmental Comfort Study	Thermal, lighting and acoustic assessment	Analytical Charts
Universal Design Exercise	Design for elderly and differently abled users	Design Proposal
Ergonomic Case Study	Evaluation of building/user interaction	Report
Design Intervention Project	Ergonomic improvement proposal	Portfolio Sheets
Final Synthesis	Presentation and documentation	Portfolio

Submission Structure

- Anthropometric Exercise Sheets
- Furniture and Workspace Analysis
- Accessibility Audit Report
- Environmental Comfort Study
- Ergonomic Design Project
- Portfolio Compilation
- Jury Presentation & Viva Voce

Studio Nature

- Human-centred design approach
- Understanding user comfort and efficiency
- Application of anthropometric standards in design
- Inclusive and universal design principles
- Integration of architecture, interior design and ergonomics
- Development of analytical and design skills

ELECTIVE OPTION 2

ARCH 219.2 Architecture & Human Behaviour

Course Overview	This elective explores relationships between people and built environments through behavioural theories, observation methods, environmental psychology, and user-centred spatial analysis.
------------------------	--

Course Contents

Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore

Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100			2	2
					Min				00	46	46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Unit	Syllabus Topic	Subtopics	Hours	Assessment
I	Introduction to Human Behaviour	Human needs, activities, perception and behaviour	6	AT1 Process Journal / Learning Log
II	Space and Social Behaviour	Territoriality, privacy, crowding, and personal space	10	AT1, AT2 Process Journal / Learning Log ; Practical Exercises / Workshop Outputs
III	Behavioural Mapping Techniques	Observation, recording, activity mapping and analysis	10	AT2, AT3 Practical Exercises / Workshop Outputs ; Documentation Sheets / Reports
IV	Environmental Psychology	Place attachment, wayfinding, sensory perception, and user experience	10	AT3, AT5 Documentation Sheets / Reports ; Presentation / Viva Voce
V	Behaviour Analysis Project	Case study, interpretation and presentation	9	AT4, AT5, AT6 Portfolio Submission ; Presentation / Viva Voce ; Final Project / Demonstration

Studio Components & Suggested Work

Component	Studio Work	Output Format
Behaviour Observation	User behaviour recording	Observation Notes
Activity Mapping	Movement and activity patterns	Mapping Sheets
Behaviour Documentation	Time-based observations	Behaviour Maps
User Interviews	Understanding user perception	Documentation Sheets
Place Analysis	Public and private space evaluation	Analytical Diagrams
Environmental Perception Study	Sensory and experiential analysis	Reports
Behavioural Case Study	Analysis of selected environments	Report
Behavioural Research Project	User-space relationship study	Report + Presentation
Final Synthesis	Recommendations and conclusions	Portfolio
Behaviour Observation	User behaviour recording	Observation Notes

Submission Structure

- Observation Exercises
- Behaviour Mapping Sheets
- User Interview Documentation
- Environmental Psychology Report
- Behaviour Analysis Project
- Portfolio Compilation
- Jury Presentation & Viva Voce

Studio Nature

- Observation-based learning
- Human-centred architectural analysis
- Behavioural research methodologies
- Understanding socio-spatial interactions
- Development of analytical and communication skills
- Linkage with urban design and environmental psychology

ELECTIVE OPTION 3

ARCH 219.3 Advanced Computing Techniques in Design

Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore

Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME									
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100			2	2
					Min				00	46	46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Course Overview	This elective introduces advanced digital design technologies, computational design thinking, parametric modelling, digital fabrication, environmental simulation, and architectural visualisation tools. Students explore contemporary workflows used in professional practice and emerging design technologies
------------------------	--

Course Contents

Unit	Syllabus Topic	Subtopics	Hours	Assessment
I	Introduction to Computational Design	Advanced CAD, BIM, scripting and computational thinking	6	AT1 Process Journal / Learning Log
II	Parametric Design Tools	Rhino, Grasshopper, visual programming, generative design	10	AT1, AT2 Process Journal / Learning Log ;Practical Exercises / Workshop Outputs
III	Digital Modelling & Visualisation	Advanced modelling, rendering and animation workflows	10	AT2, AT3 Practical Exercises / Workshop Outputs ; Documentation Sheets / Reports
IV	Digital Fabrication & Simulation	3D printing, laser cutting, CNC, and environmental analysis	10	AT3, AT5 Documentation Sheets / Reports ;Presentation / Viva Voce
V	Computational Design Project	Parametric design exploration, fabrication and presentation	9	AT4, AT5, AT6 Portfolio Submission ;Presentation / Viva Voce ;Final Project / Demonstration

Studio Components & Suggested Work

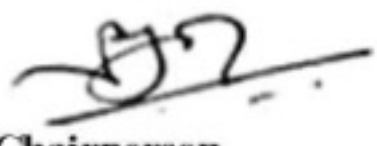
Component	Studio Work	Output Format
Software Familiarisation	Rhino, Grasshopper, BIM tools	Digital Exercises
Parametric Form Exploration	Generative geometry studies	Digital Models
Environmental Simulation	Sun, wind and performance studies	Analysis Outputs
Advanced Modelling	Complex architectural modelling	3D Models
Rendering Exercises	Materials, lighting and visualization	Rendered Images
Digital Fabrication Study	Laser cutting and 3D printing	Physical Models
Computational Design Project	Parametric design development	Presentation Sheets
Portfolio Compilation	Documentation of all exercises	Digital Portfolio
Software Familiarisation	Rhino, Grasshopper, BIM tools	Digital Exercises
Parametric Form Exploration	Generative geometry studies	Digital Models

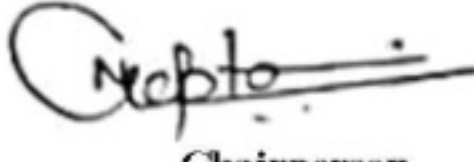
Submission Structure

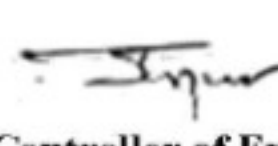
- Computational Design Exercises
- Parametric Modelling Outputs
- Simulation Reports
- Rendered Visualisations
- Fabricated Physical Model
- Digital Portfolio
- Jury Presentation & Viva Voce

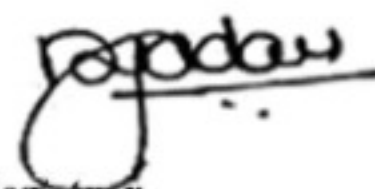
Studio Nature

- Technology-driven experiential learning
- Parametric and generative design exploration


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME										
						THEORY			STUDIO			L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%						TOTAL MARKS
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100				2	2
					Min				00	46	46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

- Digital fabrication and prototyping
- Environmental performance integration
- Industry-relevant software exposure
- Future-oriented architectural workflows

ELECTIVE OPTION 4

ARCH 219.4 MOOC: Build with Hunnarshala / Chaukat, Darwaza & Jharoka (ACEDGE)

Course Overview	This elective enables students to undertake certified online learning modules focused on traditional building knowledge, vernacular architecture, crafts, indigenous construction systems, and contemporary sustainable building practices through approved MOOCs and external learning platforms.
------------------------	--

Course Contents

Unit	Syllabus Topic	Subtopics	Hours	Assessment
I	Introduction to Traditional Building Systems	Indigenous construction techniques and materials	6	AT1 Process Journal / Learning Log
II	Vernacular Elements & Craft Traditions	Chaukat, Darwaza, Jharoka, detailing and craftsmanship	10	AT1, AT2 Process Journal / Learning Log ; Practical Exercises / Workshop Outputs
III	Learning through MOOC Modules	Guided completion of selected online modules	10	AT2, AT3 Practical Exercises / Workshop Outputs ; Documentation Sheets / Reports
IV	Documentation & Reflection	Analysis of learning outcomes and case examples	10	AT3, AT5 Documentation Sheets / Reports ; Presentation / Viva Voce
V	Final Portfolio & Presentation	Compilation, certification and viva	9	AT4, AT5, AT6 Portfolio Submission ; Presentation / Viva Voce ; Final Project / Demonstration

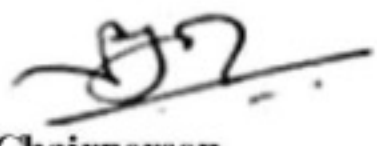
Studio Components & Suggested Work

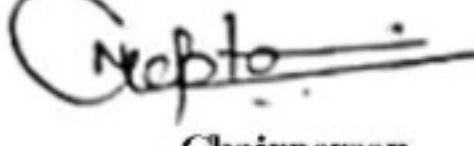
Component	Studio Work	Output Format
MOOC Participation	Completion of approved online modules	Certificates
Vernacular Element Study	Analysis of traditional architectural elements	Documentation Sheets
Construction Documentation	Traditional joinery and detailing	Drawings
Reflection Journal	Learning reflections and observations	Journal
Case Study	Traditional building analysis	Report
Craft Documentation	Material and construction process study	Sheets
Portfolio Development	Compilation of learning outputs	Portfolio
Final Presentation	Seminar and viva	Presentation
MOOC Participation	Completion of approved online modules	Certificates
Vernacular Element Study	Analysis of traditional architectural elements	Documentation Sheets

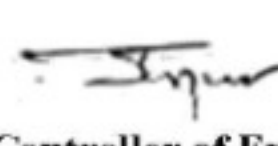
Submission Structure

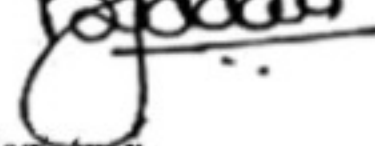
- MOOC Completion Certificates (Mandatory)
- Reflection Journal
- Documentation Sheets
- Case Study Report
- Traditional Construction Analysis
- Portfolio Compilation
- Final Presentation & Viva Voce

Studio Nature


Chairperson
 Board of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya, Indore


Chairperson
 Faculty of Studies
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Controller of Examination
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore


Registrar
 Shri Vaishnav Vidyapeeth
 Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME									
						THEORY			STUDIO			L	T	S	CREDITS
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100			2	2
					Min				00	46	46				

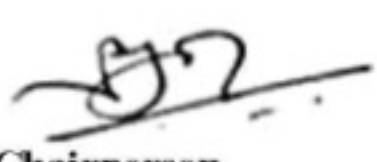
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

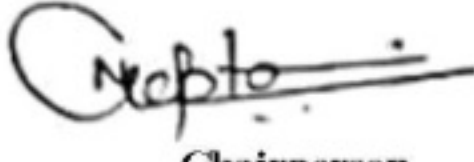
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

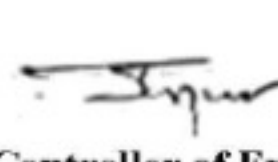
- Self-directed and experiential learning
- Exposure to traditional building systems
- Integration of online and field-based learning
- Understanding vernacular knowledge systems
- Development of documentation and research skills
- Connection between traditional wisdom and contemporary practice

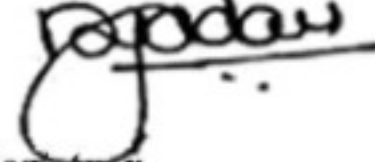
Course Delivery Framework

Sr. No.	Category	Component	Description
1	Sessional Work	Practical Exercises	Elective-specific studio, digital, analytical, documentation, or research exercises
		Process Journal / Learning Log	Documentation of observations, reflections, exercises, and learning outcomes
		Major Project	Individual or group project related to the selected elective.
		Documentation / Study Sheets	Analytical sheets, drawings, reports, simulations, or case studies
		Portfolio	Compilation of semester work and outcomes
		Viva Voce	Final presentation and evaluation
2	Teaching Methodology	Studio & Workshop Learning	Hands-on and experiential learning
		Demonstrations	Faculty-led demonstrations and guided exercises
		Field Exposure	Site visits, observations, documentation, and case studies
		Digital Learning	Software tutorials, online modules, and simulations
		Collaborative Learning	Group discussions, peer learning, and teamwork
		Presentations & Reviews	Periodic reviews, critiques, and feedback sessions
3	Skills & Knowledge Transfer	Human-Centred Design Skills	Understanding users, comfort, accessibility, and behaviour
		Analytical Skills	Observation, documentation, evaluation, and interpretation
		Digital Skills	Advanced software, computational design, and visualisation
		Research Skills	Case studies, behavioural studies, and documentation
		Professional Communication	Reports, presentations, portfolios, and discussions
4	Course Emphasis	Experiential Learning	Learning through observation, experimentation, and application
		Interdisciplinary Understanding	Exposure beyond conventional architectural studios
		Innovation & Technology	Computational thinking and emerging technologies
		Cultural Awareness	Indigenous knowledge and traditional practices
		Technical,	Technical, analytical, behavioural, and digital competencies


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya
Shri Vaishnav institute of Architecture
Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA
B. ARCH (2026)
1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME										
						THEORY			STUDIO		TOTAL MARKS	L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%						
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100				2	2
					Min				00	46	46					

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Additional Resources

Value Addition / Skill Enhancement

- Human-centred and inclusive design thinking
- Ergonomic analysis and accessibility awareness
- Behavioural research and user-centred design approaches
- Computational and parametric design skills
- Digital fabrication and prototyping exposure
- Exposure to indigenous construction knowledge systems
- Certified MOOC-based learning opportunities
- Portfolio development and professional presentation skills
- Integration of traditional and contemporary design approaches
- Exposure to AI-assisted computational design tools

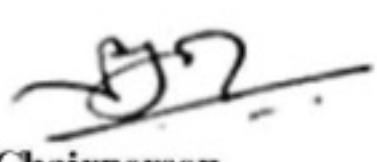
Remedial Classes for Slow Learners

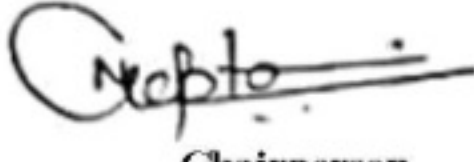
As per institutional academic support and mentoring guidelines for slow and advanced learners through:

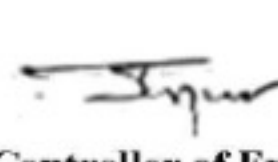
- Additional tutorials
- Individual mentoring
- Peer learning support
- Demonstration sessions
- Guided software workshops
- Extra review sessions
- Structured portfolio guidance

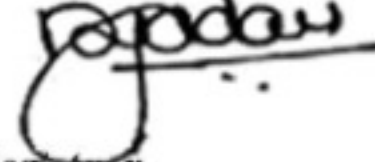
Suggested Readings:

Reference Books	
	Ergonomics & Human Factors Chaira, J. D., & Callender, J. H. (1987). <i>Time-Saver Standards for Building Types</i> . McGraw-Hill. Crosbie, M. J., & Watson, D. (2005). <i>Time-Saver Standards for Architectural Design</i> (8th ed.). McGraw-Hill. Panero, J., & Zelnik, M. (2014). <i>Human Dimension and Interior Space</i> . Watson-Guption. Tilley, A. R. (2002). <i>The Measure of Man and Woman</i> . Wiley. Kroemer, K. H. E., Kroemer, H. J., & Kroemer-Elbert, K. (2001). <i>Ergonomics: How to Design for Ease and Efficiency</i> . Prentice Hall. Architecture & Human Behaviour Lang, J. (1987). <i>Creating Architectural Theory</i> . Van Nostrand Reinhold. Rapoport, A. (1969). <i>House Form and Culture</i> . Prentice Hall. Rapoport, A. (1982). <i>The Meaning of the Built Environment</i> . Sage. Whyte, W. H. (1980). <i>The Social Life of Small Urban Spaces</i> . Conservation Foundation. Gehl, J. (2011). <i>Life Between Buildings</i> . Island Press. Pallasmaa, J. (2012). <i>The Eyes of the Skin</i> . Wiley. Sommer, R. (1969). <i>Personal Space</i> . Prentice Hall. Advanced Computing Techniques in Design Braumann, J., Brell-Cokcan, S., Willette, A., McGee, W., & León, M. P. (2014). <i>Robotic Fabrication in Architecture, Art and Design</i> . Springer. Adriaenssens, S. (2016). <i>Advances in Architectural Geometry</i> . ETH Zurich. Beorkrem, C. (2013). <i>Material Strategies in Digital Fabrication</i> . Routledge. Gramazio, F., & Kohler, M. (2014). <i>Fabricate: Negotiating Design and Making</i> . GTA Verlag. Naboni, R., & Paoletti, I. (2015). <i>Advanced Customisation in Architectural Design and Construction</i> . Springer. Pell, B. (2010). <i>The Articulate Surface</i> . Birkhäuser. Chopra, A. (2018). <i>SketchUp for Dummies</i> . Wiley.


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

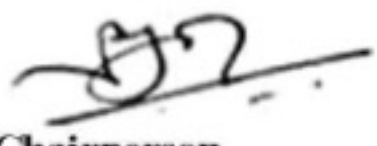
COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING & EVALUATION SCHEME										
						THEORY			STUDIO			L	T	S	CREDITS	
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%						TOTAL MARKS
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100				2	2
					Min				00	46	46					

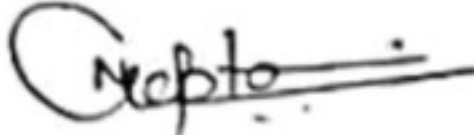
Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

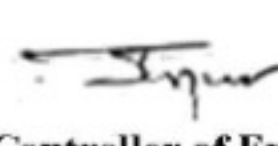
Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

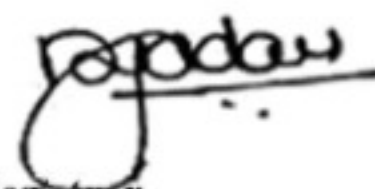
		Tal, D. (2013). <i>Rendering in SketchUp</i> . Wiley. Vernacular Architecture & Traditional Knowledge Rudofsky, B. (1964). <i>Architecture Without Architects</i> . Museum of Modern Art. Oliver, P. (1997). <i>Encyclopedia of Vernacular Architecture of the World</i> . Cambridge University Press. Ranjan, A., & Ranjan, M. P. (2007). <i>Handmade in India</i> . Council of Handicraft Development Corporations. Jaitly, J. (2012). <i>Craft Atlas of India</i> . Niyogi Books. Pallasmaa, J. (2010). <i>The Thinking Hand</i> . Wiley.
Suggested Resources	E-	Academic & Learning Platforms • NPTEL Architecture Courses • SWAYAM Portal • MIT OpenCourseWare • Coursera • edX • FutureLearn • JSTOR • Google Scholar • Archnet • SAH Archipedia Computational Design & Digital Fabrication • Rhino Learn • Grasshopper3D • Autodesk University • DesignMorphine • Parametric House • McNeel Tutorials • Ladybug Tools • Food4Rhino Architecture & Design Platforms • ArchDaily • Dezeen • STIRworld • World Architects • Architexturez • Architectural Review • RIBA Resources • CEPT Portfolio Archive Human Behaviour & Environmental Psychology • Project for Public Spaces (PPS) • Gehl Institute • Environmental Design Research Association (EDRA) • Behavioural Mapping Resources • Senses Atlas Traditional Building & Craft Resources • Hunnarshala Foundation Learning Resources • INTACH Documentation Resources • UNESCO Traditional Knowledge Resources • Crafts Council of India • Indian National Trust for Art and Cultural Heritage (INTACH)

Suggested Course Articulation Matrix (Mapping of COs with POs)


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

COURSE CORE	COURSE AREA	COURSE TYPOLOGY	COURSE CODE	COURSE NAME	MARKS	TEACHING &EVALUATION SCHEME							CREDITS		
						THEORY			STUDIO		TOTAL MARKS	L		T	S
						END SEM University Exam 50 % OR 40 %	Two-Term Exam 20%	Teachers Assessment*30% OR 20%	END SEM University Viva Voice Exam 50% OR 20%	Teachers Assessment* 50%					
SEC	VAC	THEORY/ STUDIO	ARCH 219	ELECTIVE- II	Max				00	100	100			2	2
					Min				00	46	46				

Legends: L – Lecture; T – Tutorial (guided academic exercises); S – Studio (design, drawing, model work); C – Credits.

Teachers' Assessment / sessional: Based on quizzes, assignments, studio work, projects, and participation; each component not exceeding 10 marks.

Course Articulation Matrix (Mapping of COs with POs)

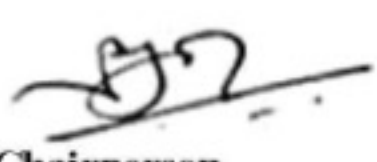
Course Outcomes	Correlation with POs												Correlation with PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	2	2	1	2	–	–	–	2	2	–	1	3	2	1
CO2	3	2	2	2	2	–	–	–	2	3	–	2	3	3	1
CO3	2	3	2	2	1	1	1	–	2	2	–	2	2	3	1
CO4	2	2	2	1	2	–	–	–	2	3	–	1	2	3	1
CO5	2	3	2	2	2	1	–	–	2	2	–	2	2	3	1

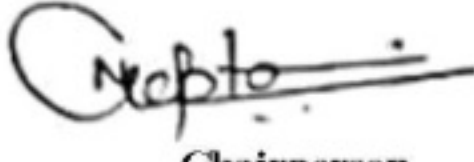
Assessment Scheme

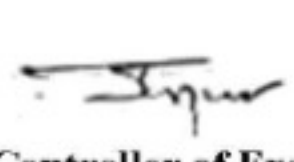
Component	Method	COs Mapped	Weightage
Practical / Studio Work	Exercises, workshops, fieldwork, modelling, analysis	CO1, CO2	30%
Assignments	Reports, case studies, simulations, documentation	CO2, CO3	20%
Mid Review	Interim evaluation and discussion	CO3, CO4	10%
Portfolio	Compilation of semester work	CO4, CO5	20%
Final Presentation & Viva	Final submission, presentation and viva voce	CO4, CO5	20%

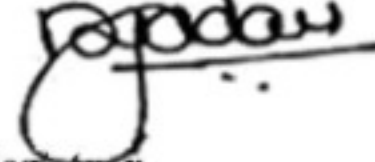
Evaluation Rubrics

Criteria	Excellent (4)	Good (3)	Average (2)	Poor (1)
Technical Competency	Highly proficient and accurate	Good competency	Basic competency	Limited competency
Analytical Understanding	Deep understanding and interpretation	Good understanding	Basic understanding	Weak understanding
Application of Knowledge	Effective application in exercises/projects	Good application	Partial application	Poor application
Innovation & Creativity	Original and exploratory	Some originality	Limited creativity	Minimal innovation
Documentation Quality	Thorough, well-organised, and professional	Good documentation	Adequate documentation	Poor documentation
Presentation & Communication	Highly effective and professional	Clear and organised	Adequate	Poor and incomplete


Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore


Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore


Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore



Shri Vaishnav Vidyapeeth Vishwavidyalaya

Shri Vaishnav institute of Architecture

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2026)

1ST YEAR / II Semester

ARCH 219: Elective – II

Chairperson
Board of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya, Indore

Chairperson
Faculty of Studies
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Controller of Examination
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore

Registrar
Shri Vaishnav Vidyapeeth
Vishwavidyalaya Indore