

Udhaji Maratha Boarding Campus, off Gangapur Road, Nashik Phone : 0253-2570822. Email : cansnashik@mvp.edu.in

Criterion 2 – Teaching Learning & Evaluation

2.6 – Student Performance & Learning Outcome

2.6.1



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Criterion 2 – Teaching- Learning and Evaluation

Key Indicator – 2.6 Student Performance and learning Outcome (60)

2.6.1 Teachers and students are aware of the stated program and Course Outcomes of the programs offered by the institution.

Sr. No.	Contents (Documents)
1	Course Outcomes 2015 Patterns
2	Course Outcomes 2019 Patterns
3	Course Structure 8.Arch SPPU (Savitribai Phule Pune University)





M.V.P.S's College of Architecture, Nashik Udhaji Maratha Boarding Campus, off Gangapur Road, Nashik Phone: 0253-2570822. Email: mvpcans_nsk@yahoo.co.in

2.6.1

Teachers and students are aware of the stated Programs and course outcomes of the Programs offered by the institution. (15)

1) Course Outcomes 2015 Pattern



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COURSE OUTCOMES FOR B. ARCH. 2015 PATTERN

Course Objectives as mentioned in syllabus of 2015 Pattern are referred and combined with Bloom's Taxonomy for learning.

SR. NO.	SUBJECT NAME		CO CODE		COURSE OUTCOMES	
			FIRST	T YEAR	B.ARCH - SEM I	
			1201501.1	CO 1	The students should be able to relate the fundamentals and principles of basic design to architectural design.	
			1201501.2	CO 2	The students should understand the basic design fundamentals, form, space, context and anthropometry to comprehend Design as a creative process of choice making and statement of intent.	
1	Design	1201501 (SV)	1201501.3	CO 3	The students should be able to apply the fundamentals and principles of basic design into architectural design by experimenting with the multisensory aspects of space.	
	Design		1201501.4	CO 4	The students should be able to analyse the various fundamentals, principles of basic design and spatial relationships.	
			1201501.5	CO 5	The students should be able to critically appraise the application of basic design principles and attributes of form that influence human spatial experiences.	
			1201501.6	CO 6	The students should be able to create their own explorations, and spatial design demonstrating the application of elements and principles of basic design, form and space, space layout, context and anthropometry	
			1201502.1	CO 1	The Student should be able to define various elements of building from foundation to roof in load bearing construction.	
2	Building Technology & Materials !	1201502 (SV), 1201503 (PP)	1201502.2	CO 2	Student should be able to explain principles of load bearing construction and to classify various building materials which are commonly used in load bearing construction.	
			1201502.3	CO 3	Student should be able to examine and identify various aspects to be considered in formation of sub-structure in load bearing structure.	
			1201502.4	CO 4	Students should be able to classify different types of masonry used in load bearing construction.	





			1201502.5	CO 5	Student should be able to explain different types of finishes techniques used in load bearing construction.
			1201502.6	CO 6	Student should be able to assess different measures should be taken care of while constructing load bearing structure in earthquake prone area
			1201504.1	CO 1	Recalling the Applied Mechanics basics concepts and Theory of Structures and their significance
	Theory of	1201504	1201504.2	CO 2	Understand & summarize the detailed technics and relate them in numerical
3	Structures I	(PP)	1201504.3	CO 3	Application of the knowledge in numerical so students will experiment on it, which help them at the time planning
			1201504.5	CO 5	Determine the answer by using CO2 or by putting various values
			1201505.1	CO 1	Students will be shown various architectural drawing techniques which can be used to express simple 3D objects and building components.
		1201505 (SS)	1201505.2	CO 2	Various techniques of graphical recording and communication will be demonstrated to help students illustrate using various graphical projection systems
	Arch		1201505.3	CO 3	Students will be able to construct simple 3D objects and building components by making use of various drawing techniques
4	Drawing & Graphics I		1201505.4	CO 4	Students will be motivated to use the various drawing techniques to study, record and communicate objects, building and building components.
			1201505.5	CO 5	The course should prepare the students to construct their own set of architectural drawings explaining their design. An important tool to design and execute their projects
		-	1201505.6	CO 6	Students will combine their knowledge of various graphical techniques and sketching to present their ideas for developing, discussing and building their design.
		-	1201506.1	CO 1	To know the Significance of Humanities in the field of Architecture and also to understand the development of Literature from Prehistoric period
5	Humanities	1201506 (SS)	1201506.2	CO 2	To understand the fundamentals of Formation of societies from Prehistoric period to modern times
		, -,	1201506.3	CO 3	To understand the origin of music - singing, dancing and the development
			1201506.4	CO 4	To understand the fundamentals of Formation of societies from Prehistoric period to modern times





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			1201506.5	CO 5	Elements of Appreciating a building
			1201506.6	CO 6	To compile and work on final presentation of assignments
	~		1201507.1	CO 1	Students will be able to relate to the various roles an architect has to play simultaneously and define the nature of Architecture.
			1201507.2	CO 2	Students will understand the scope of Architecture as one is interpreting its evolution through time to explain the definition of architecture.
	Introduction		1201507.3	CO 3	Students will be able to identify various fundamentals of Architecture and develop awareness about their manifestation in Architecture.
6	to Architecture	1201507	1201507.4	CO 4	Students will be able to decode the Generators of Architectural Design and inspect their relationship with each other and illustrate it graphically.
		2 	1201507.5	CO 5	Students will be able to assess the aesthetic and functional components of Architecture and conduct an appraisal of the same.
1			1201507.6	CO 6	The course should prepare the students to construct their own paradigms of Architectural design backed by a theoretical knowledge to test them further in proposing a design solution.
		orkshop I 1201508	1201508.1	CO 1	The students should be able to understand the use and handling process of tools with safety through experimentation.
			1201508.2	CO 2	The students should be able to identify and recognize the various feature and properties of the Art materials. And experiment on same.
7	Workshop		1201508.3	CO 3	The students should be able to identify the correct material and develop some small 3D models as per their 2D sketches.
			1201508.4	CO 4	The students should be able to identify and recognize the various features of the paper material and develop some designs as per creative ideas.
			1201508.5	CO 5	The students should be able to understand Geometry to Architecture collision where ideas and art meet.
			1201508.6	CO 6	The students should be able to understand and identify correct material as per requirement which are suitable for making different type of elements.



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			FIRS	T YEAR	B.ARCH - SEM I
		-	1201509.1	CO 1	The students should be able to recognize activity, context and spatial relationships, choose from various design alternative processes and various techniques to improve creativity.
-			1201509.2	CO 2	The students should comprehend activity, context and spatial relationships, various design alternative processes and various techniques to improve creativity.
		1201509	1201509.3	CO 3	The students should be able to apply various design alternative processes and various techniques to improve their creativity to develop architectural design.
7	Design II	(SV)	1201509.4	CO 4	The students should be able to examine, correlate and illustrate activity, and context and spatial relationships to develop architectural design and practice various design alternative processes and various techniques to improve creativity.
	ŝ		1201509.5	CO 5	The students should be able to inculcate an analytical thinking about activity, context and spatial relationships of built spaces, its built elements, open spaces and associated architectural character,
r E			1201509.6	CO 6	The students are trained to design their own spatial/building design project demonstrating its built elements, open spaces and associated architectural character.
			1201510.1	CO 1	Students should be able to explain Construction of reinforced masonry walls, pillars and lintels.
	Building		1201510.2	CO 2	Students should be able to define building materials like bamboo, timber, timber derivatives, roofing materials for small span sloping roofs including Mangalore tiles with reference to their characteristics, market forms, applications and preservation, etc.
8	& Materials	(SV)	1201510.3	CO 3	Student should be able to classify various types of timber Doors, Windows and Carpentry tools used for it.
			1201510.4	CO 4	Students should be able to examine Single and double floor construction.
			1201510.5	CO 5	Student should be able to identify Timber stairs and construction of any one type of stairs.
			1201510.6	CO 6	Student should be able to assess various types of roofs, vaults and domes.





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	The second		1201512.1	CO 1	Recalling the S.F.D and B.M.D
			1201512.2	CO 2	Understand & summarize the detailed technics of S.F.D and B.M.D and relate them in numericals
9	Structures II	(P)	1201512.3	CO 3	Application of the knowledge in numerical so students will experiment on it, which help them at the time planning
			1201512.5	CO 5	Determine the answer by using CO2 or by putting various values
			1201513.1	CO 1	Students will be shown various architectural drawing techniques which can be used to express simple 3D objects and building components.
	Arch Drawing & Graphics II	- 58	1201513.2	CO 2	Various techniques of graphical recording and communication will be demonstrated to help students illustrate using various graphical projection systems.
		1201513 (SS)	1201513.3	CO 3	Students will be able to construct simple 3D objects and building components by making use of various drawing techniques
10			1201513.4	CO 4	Students will be motivated to use the various drawing techniques to study, record and communicate objects, building and building components.
			1201513.5	CO 5	The course should prepare the students to construct their own set of architectural drawings explaining their design. An important tool to design and execute their projects.
×			1201513.6	CO 6	Students will combine their knowledge of various graphical techniques and sketching to present their ideas for developing, discussing and building their design.
			1201514.1	CO 1	To understand the Basic Elements of Civilization
11	History of Architecture	1201514	1201514.2	CO 2	To understand the Geographical Setting, the society the beliefs and philosophy of this civilization, the lifestyle of people
		(00)	1201514.4	CO 4	To understand the Art forms, and Architecture of the civilization
	5		1201514.5	CO 5	To write, to analyses, to submit the assignments



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5			1201515.1	CO 1	The students should be able to relate climate and architecture, recognize the various climatic zones in India with respective traditional climate responsive architecture.
			1201515.2	CO 2	The students should be able to understand climate as a determinant of architectural design and various climate responsive building design criteria.
		1201515	1201515.3	CO 3	The students should be able to apply climate responsive building design for various climates and microclimatic site conditions.
12	Climatology	(SS)	1201515.4	CO 4	The students should be able to examine, correlate and illustrate the different climate responsive design strategies applicable for site microclimate and climatic zones in India.
			1201515.5	CO 5	The students should be able to compare and justify applicability of various climate responsive building design strategies in architectural design to achieve thermal comfort.
			1201515.6	CO 6	The students should be able to propose climate responsive design solutions to integrate with their architectural design projects.
		1201516 (SS)	1201516.1	CO 1	The students should be able to understand the use and handling process of tools with safety through experimentation.
	Workshop II		1201516.2	CO 2	The students should be able to identify and recognize the various feature and properties of the Art materials and experiment on the same.
13			1201516.3	CO 3	The students should be able to identify the correct material and develop some small 3D models as per their 2D sketches.
			1201516.4	CO 4	Understanding & applying software skills and implement their ideas into making 3D models.
			1201516.5	CO 5	The students should be able to understand the various type of material and their feature, limitation and properties. Experiment on same.
		2	1201516.6	CO 6	The students should be able to understand Geometry to Architecture collision where ideas and art meet.



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			SECO	ND YEA	R B.ARCH - SEM III
			2201517.1	CO 1	To identify and recognize the various features of the architectural styles which emerged in the 19th and 20th century.
			2201517.2	CO 2	To understand the architecture and the architectural discourse in the 19th and 20th centuries and the various factors like industrialization, modernity, wars, global local concerns etc. that shaped it.
14	Desian III	2201517	2201517.3	CO 3	The course intends to relate the architecture as a product of its times especially with reference to the salient socio –political, cultural, economic and technological markers of the nineteenth century.
	g	(SV)	2201517.4	CO 4	The course intends to examine, co relate and illustrate the different stands of architectural practice and works that developed as a result of the plurality of approaches taken by different architects in the 19th and 20th centuries.
			2201517.5	CO 5	The course should inculcate an analytical thinking about architecture and appraise various theoretical positions.
	3		2201517.6	CO 6	The course should train the students to develop their own thoughts and theories and invent their own architectural paradigms.
		2201518 (SV), 2201519 (PP)	2201518.1	CO 1	Students will be able to relate various Structural RCC Components such as Plinth and Ground Beams, Foundation and materials such as Concrete, Flooring, Roofing etc.
	Building		2201518.2	CO 2	The students will be able to understand the various Prerequisites and Designing of RCC Structural components and types of materials such as concrete, flooring, roofing, door types depending upon various factors such as Soil, loading and materials.
14	& Materials III		2201518.3	CO 3	Students should be able to choose the appropriate type of RCC Components such as types of Beams, Slabs, Staircases and Material such as Concrete, flooring, roofing, doors etc.
			2201518.4	CO 4	Students should be able to examine and compare various building materials used in RCC Construction such as steel, concrete types, Damp proofing materials etc.
			2201518.5	CO 5	Student should be able to interpret and evaluate various construction technologies as per site situations.





			2201518.6	CO 6	Student will be able to adapt appropriate construction and working details for a RCC building component upto plinth level and finishing components such as flooring, roofing, escalators, fencing, gates etc.
			2201520.1	CO 1	Recalling the Euler's and Rankine's Theory for Buckling and Crushing Failure in Columns
15	Theory of	2201520(2201520.2	CO 2	Understand Fixed Beam as a statically in- determinate structure & summarize the detailed techniques and relate them in numerical
	Structures III	PP)	2201520.3	CO 3	Application of the knowledge in numerical so students will experiment on it, which help them at the time planning
			2201520.5	CO 5	Determine the answer by using CO2 or by putting various values
			2201924.1	CO 1	To learn and relate the basics of Building Services- water supply, systems of drainage in building and Garbage disposal for an existing Architectural Project.
		2201924 (SS), 2201925 (PP)	2201924.2	CO 2	The course intends to explain and classify the working of the systems of cold and hot water supply and sanitation.
	Building		2201924.3	CO 3	The course intends to inculcate in students the integration of building services in Architectural Design for low, medium and high rise buildings
16	Services I		2201924.4	CO 4	The course intends to correlate and compare the different options available for water supply, waste disposal, rainwater harvesting lighting and electrification, alternative energy sources and existing examples of built structures.
			2201924.5	CO 5	The course intends to enable students to determine the appropriate method building services in architectural design.
			2201924.6	CO 6	The course should train the students to design and adapt the building services for efficient architectural design proposal.
			2201523.1	CO 1	The student should be able to relate the linkages between architecture and the socio- cultural, political and economic context of the period.
17	History of Architecture	ory of tecture II (SS)	2201523.2	CO 2	The students should be able to understand a distinct architectural setup and features of various periods.
	II		2201523.4	CO 4	The student should be able to understand the relationship of the complex factors that condition the built environment through design analysis, theory and history





			2201523.5	CO 5	The student should be able to determine and decide the style of structure from the spatial, structural and decorative elements.
-			2201524.1	CO 1	Students learn to develop previous technical drafting skills with simple three dimensional objects and building components through Technical Drawings.
~			2201524.2	CO 2	The students shall be able to understand principles of perspective drawings & principles of sciography sketching & CAD by technical methods.
18	Arch Drawing & Graphics III	2201524	2201524.3	CO 3	To produce architectural objects by applying method of exterior and interior perspective & sciography drawings, & CAD illustration software programs.
		z I	2201524.4	CO 4	The students will develop their imaginary skills by analyzing different drafting tools & technique.
			2201524.5	CO 5	Student should acquire graphic skills to present a building, analyze its elements and explain the composition.
	8		2201524.6	CO 6	Students shall able to construct conceptual & presentation drawings in all subjects.
		2201525	2201525.1	CO 1	The students should be able to define the basic terminology of Surveying & Levelling; and relate its significance in Architectural Profession.
			2201525.2	CO 2	The students should be able to demonstrate various Surveying & Levelling activities; and interpret & illustrate the collected Data.
			2201525.3	CO 3	The students should be able to identify the correct ways of conducting the Surveying &/or Levelling operation, organizing for the same, and effectively make use of the Tools & Instruments.
19	Surveying & Levelling		2201525.4	CO 4	The students should be able to inspect the important aspects & physical features of the Survey-Site, and list them down in a simplified Template for Survey purpose.
			2201525.5	CO 5	The students should be able to generate high precision Data to be able to generate acceptable quality illustrations (Drawings); and to be able to estimate correct quantities.
			2201525.6	CO 6	The students should be able to estimate quantum of required work by using the Survey Data & illustrations; and be able to develop & propose alternative solutions. To realize the scope of Surveying & Levelling as a career option.





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			SECON	ID YEA	R B.ARCH - SEM IV
			2201526.1	CO 1	Students will be able to find out and select Attributes of Architectural character through application of indigenous materials, construction technology from the documentation of a settlement in different regional and climatic context.
		-	2201526.2	CO 2	Students will be able to comprehend site specific stimuli through responses to physical, climate, visual, cultural contexts from the documentation of a settlement in different regional and climatic context.
20	Design IV	2201526	2201526.3	CO 3	Students will be able to apply zoning, activity distribution, circulation and activity relationships to multiple layering of architectural space
			2201526.4	CO 4	Students will be able to analyze passive solar responses and fenestration design from settlement study to test them in their own designs
		·	2201526.5	CO 5	Students will be able to appraise function and space studies as well as defined user group specific perception of space and compare it with their own design solutions
		5	2201526.6	CO 6	The course should prepare the students to develop their own suitable design language for architectural design of multicellular, multiple level spaces by application of principles of functionality, climate, composition, and aesthetics.
i i		2201527 (SV) & \$ 2201528 (PP)	2201527.1	CO 1	Students will be able to relate various construction materials to construction systems, techniques and methodology with specific reference to R.C.C. Construction
			2201527.2	CO 2	The students should be able to understand the Concrete and Reinforcement detailing of various types of RCC Components.
21	Building Technology & Materials IV		2201527.3	CO 3	Students should be able to choose the appropriate type of RCC Components such as types of slabs or staircases and types of finishes such as types of windows, elevators, escalators etc.
			2201527.4	CO 4	Students should be able to examine and compare various building materials used in RCC Construction such as Ferrocement, RMC, LWC, Waterproofing materials etc.
			2201527.5	CO 5	Student should be able to interpret and evaluate various construction technologies as per site situations such as Precast Concrete, Cast in situ.



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	=		2201527.6	CO 6	Student will be able to adapt appropriate construction details for a RCC building component above plinth and upto terrace level.
			2201529.1	CO 1	Recalling Wood by W.S Method, Introduction to I.S.883 Study of Wood as a Material. Different Grades Available
22	Theory of Structures	2201529	2201529.2	CO 2	Understand Design of Wood & summarize the detailed technics and relate them in numerical
	IV	(PP)	2201529.3	CO 3	Application of the knowledge in numerical so students will experiment on it , which help them at the time planning
	· · · ·		2201529.5	CO 5	Determine the answer by using CO2 or by putting various values
		3	2201530.1	CO 1	To relate and define the basics of building services- waste disposal, rainwater harvesting, lighting and electrification, alternative energy sources
	Building Services II	2201530 (SS) & 2201531 (PP)	2201530.2	CO 2	To understand and classify the working of the systems of waste disposal, lighting and electrification
			2201530.3	CO 3	The course intends to identify and integrate the Building Services in low, medium and high rise buildings.
23			2201530.4	CO 4	The course intends to co relate and survey the different options available in the market for waste disposal, rainwater harvesting, lighting and electrification, alternative energy sources and existing examples of built structures.
			2201530.5	CO 5	The course should enable to decide the appropriate method for integration of building services in architectural design.
			2201530.6	CO 6	The course should train the students to design and adapt the building services for efficient architectural design proposal.
			2201532.1	CO 1	The student should be able to relate the linkages between architecture and the socio- cultural, political and economic context of the period.
	History of	5	2201532.2	CO 2	The students should be able to understand a distinct architectural setup and features of various periods
24	Architectur e III	itectur (SS)	2201532.4	CO 4	The student should be able to understand the relationship of the complex factors that condition the built environment through design analysis, theory and history.
			2201532.5	CO 5	The student should be able to determine and decide the style of structure from the spatial, structural and decorative elements.





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		2201533 (SS)	2201533.1	CO 1	The students should be able to define the basics of Technical Communication; and relate its significance in Architectural Profession.
			2201533.2	CO 2	The students should be able to demonstrate (as required in the professional life) various skills like - Data Organizing, Translating it into different formats, writing technical descriptions, demonstrating Job-Readiness skills.
	Technical		2201533.3	CO 3	The students should be able to apply / utilize their acquired knowledge in a more professional manner & format in Technical-Job situations.
	ation		2201533.4	CO 4	To be able to classify, categorize, compare, analyze, simplify, and correctly infer from the given Technical Data / Information.
			2201533.5	CO 5	To be able to present and defend / justify the opinions / conclusions in a professionally widely acceptable manner. To be able to explain / present & influence using the Soft Skills in inter-personal Technical Communication.
			2201533.6	CO 6	To be able to invent methods of compiling the vast information together in a way / format most suitable to the Purpose, by adapting various digital tools / software etc.
			2201534.1	CO 1	To know the basics of working drawing and check list of drawings
			2201534.2	CO 2	To understand various term used in working drawing along with graphical representation and annotations
	Working	2201534	2201534.3	CO 3	To develop and apply graphical representation in working drawing.
26	Drawing I	(SS)	2201534.4	CO 4	To classify, analyze and compare various drawings and its co-relation with each other
			2201534.5	CO 5	To acquaint students with the methodology and sequence of various working drawings and its importance in professional practice
			2201534.6	CO 6	To create a working drawing set of an architectural design





			THIR	D YEAR	B.ARCH - SEM V
	- N		3201535.1	CO 1	Students will be able to define the role of Campus planning for designing buildings with different functions, requiring spaces of different scales and employing suitable structural systems. Also students are expected to list down the building services to sustain campus by itself.
	Γ'ς.,		3201535.2	CO 2	Students will understand various socio-cultural patterns, geographic context and identify the needs of the users and the site to evolve a sustainable design
27	Design V	3201535 (SV)	3201535.3	CO 3	Students will be able to apply their knowledge in sustainable site planning and designing based on various factors for achieving functional (activity, user, space relation), aesthetic, Technical (construction and material), environmental (climatic, socio-geographic) and Cultural goals which shall be integrated in built and inbuilt spaces.
			3201535.4	CO 4	Students will be able to analysis and synthesis of various design parameters in built-unbuilt spatial relationship; also classify and re-interpret various sources for inspiration for architectural design such as nature, history, geometry, culture Topography, context, philosophy, existing vegetation etc.
			3201535.5	CO 5	Students will be able to appraise multi-functional, multi-cellular built environments from various case studies to determine generators for their own design
			3201535.6	CO 6	The course will guide students to, formulate and develop design proposal for pilot projects culminating into an idea, concept generation and visualization that encourages sensitivity towards their own suitable design language for multi- functional, multi-cellular built environments.
		3201536 (SV) & 3201537 (PP)	3201536.1	CO 1	The student is able to identify and relate different types of Interior elements, RCC flooring systems and long span structures.
28	Building Technology & Materials		3201536.2	CO 2	The student is able to understand characteristics and properties of various Interior elements, RCC flooring systems and long span structures.
	V		3201536.3	CO 3	The student is able to make use of technology to develop different possibilities of assembling interior elements.
		-	3201536.4	CO 4	The student is able to survey, classify and examine different types of technology and materials suitable





					for Interior elements, RCC flooring systems and Long span structures.
-			3201536.5	CO 5	The student is able to inculcate an analytical thinking about selection and application of appropriate material and technology.
	-		3201536.6	CO 6	The student is able to propose an appropriate solution for a specific design requirement related to Interior elements, RCC flooring systems or Long span structures.
		2	3201538.1	CO 1	Recalling theory only on Support Systems and Reinforcement Detailing in the various Cases
	Theopy of	2201528	3201538.2	CO 2	Understand Design of Beams & summarize the detailed technics and relate them in numerical
29	Structures V	(P)	3201538.3	CO 3	Application of the knowledge in numerical so students will experiment on it , which help them at the time planning
			3201538.5	CO 5	Determine the answer by using CO2 or by putting various values
	Landscape Architecture I	3201539 (SS)	3201539.1	CO 1	Students will be able to define the scope of Landscape architecture based on their knowledge and exposure on various factors which are required in landscape practice.
			3201539.2	CO 2	Students will understand various elements, principles of landscape architecture and relate to the necessity of being sensitized towards appropriate landscape practice on the basis of Historical references.
30			3201539.3	CO 3	Students will be able to apply their knowledge in site planning and designing based on various landscape factors for achieving functional, aesthetic, environmental and Cultural goals.
			3201539.4	CO 4	Students will be able to discover, classify, and analyse different natural and manmade aspects such as Microclimate, topography, hydrology, vegetation, physical and socio-cultural context through various examples / case studies / practices in field of landscape architecture.
	· ···		3201539.5	CO 5	Students will be able to build their interest in landscape architecture by appraising various works in the field and its scope.
			3201539.6	CO 6	The course will guide students to, formulate and develop design proposal for pilot projects culminating into an idea, concept generation and visualization that encourages creative thinking.





			3201540.1	CO 1	Learning about environmental factors which affect human thermal comfort
			3201540.2	CO 2	Understanding the importance of Natural Wind Forces in passive air conditioning of buildings
31	Building	3201540 (SS) &	3201540.3	CO 3	Understanding the strategies for utilizing wind for ventilation as per the building form & size
	Services III	3201541 (PP)	3201540.4	CO 4	Classification & Analytical comparison of various ventilation systems
			3201540.5	CO 5	Selecting the proper type & size of fans as per the ventilation load calculations
			3201540.6	CO 6	Application of the knowledge of Natural ventilation in Design Project
			3201542.1	CO 1	The students should be able to identify and recognize the various features of the architectural styles which emerged in the 19th and 20th century.
		3201542 (SS)	3201542.2	CO 2	The students should be able to understand the architecture and the architectural discourse in the 19th and 20th centuries and the various factors like industrialization, modernity, wars, global local concerns etc that shaped it.
32	History of Architecture IV		3201542.3	CO 3	The students should be able to relate to the architecture as a product of its times especially with reference to the salient socio –political, cultural, economic and technological markers of the nineteenth century.
			3201542.4	CO 4	The students should be able to examine, co-relate and illustrate the different stands of architectural practice and works that developed as a result of the plurality of approaches taken by different architects in the 19th and 20th centuries.
			3201542.5	CO 5	The students should be able to inculcate an analytical thinking about architecture and appraise various theoretical positions.
			3201543.1	CO 1	To know the basics of working drawing and check list of drawings
			3201543.2	CO 2	To understand various term used in working drawing along with graphical representation and annotations
	Working	2201542	3201543.3	CO 3	To develop and apply graphical representation in working drawing.
33	Drawing II	3201543 (SS)	3201543.4	CO 4	To classify, analyze and compare various drawings and its co-relation with each other
			3201543.5	CO 5	To acquaint students with the methodology and sequence of various working drawings and its importance in professional practice
			3201543.6	CO 6	To create a working drawing set of an architectural design





		Later And	THIRD	YEAR	B.ARCH - SEM VI
			3201544.1	CO 1	Students will be able to define the concept of high rise buildings by stacking of different functions vertically./ Students will be able to define the concept of stand-alone building on a site
			3201544.2	CO 2	Students will understand various concerns such as coordinating various building services, vertical circulation, basement parking, and structural grids, disaster management design strategies/techniques, and universal design
34	3201 (SV 3201 3201	3201544 (SV) & 3201545 (PP)	3201544.3	CO 3	Students will be able to apply their knowledge about various services such as water supply, lifts, drainage, garbage disposal, lighting, air conditioning along with technical understanding about structural grids and disaster management strategies etc.in vertically stacked high rise building by keeping function and aesthetic intact/student will be apply their knowledge of art-architecture history, contemporary art-architecture movements
1		(PP)	3201544.4	CO 4	Students will be able to study and analyze buildings in which vertical arrangements are desired with number of services and material and construction techniques. Student will able to analyze art- architecture history, contemporary art-architecture movements
-			3201544.5	CO 5	Students will be able to appraise multi-functional, multi-cellular built environments from various case studies to determine generators for their own design
8			3201544.6	CO 6	The course will guide students to, formulate and develop design proposal for pilot projects culminating into an idea, concept generation and visualization that encourages sensitivity towards their own suitable design language for service base, multi-functional, multi-cellular built environments.
	Building	3201546 (SV) & 3201547 (PP)	3201546.1	CO 1	The student is able to identify and define different type of building materials, earthquake resistant frame structures, retaining walls, modular co- ordination and steel structures.
35	Technology & Materials VI		3201546.2	CO 2	The student is able to understand characteristics and properties of various building materials, earthquake resistant frame structures, retaining walls, modular co-ordination and steel structures.
			3201546.3	CO 3	The student is able to make use of technology to develop different possibilities for earthquake





					resistant frame structures, retaining walls, modular co-ordination and steel structures.
			3201546.4	CO 4	The student is able to survey, classify and examine different types of technology and materials suitable for building construction.
			3201546.5	CO 5	The student is able to inculcate an analytical thinking about selection and application of appropriate material and technology.
			3201546.6	CO 6	The student is able to propose an appropriate solution for a specific design requirement related to earthquake resistant frame structures, retaining walls, modular co-ordination and steel structures.
1	01 1	Ð a s	3201548.1	CO 1	Recalling the R.C.C Water Tanks and Portal frames: basics concepts and Theory of Structures and their significance
36	Theory of Structures VI	3201548	3201548.2	CO 2	Understand R.C.C Cantilever Retaining Wall & summarize the detailed technics and relate them in numerical
			3201548.3	CO 3	Application of the knowledge of type Retaining Walls in numerical so students will experiment on it , which help them at the time planning
			3201548.5	CO 5	Determine the answer by using CO2 or by putting various values
	-	3201549 (SS)	3201549.1	CO 1	Students will be able to define the role of Landscape architecture to address the environmental concern on basis of knowledge on various factors which are involved in varied landscape practices done by Master landscape architects all over the world.
			3201549.2	CO 2	Students will understand various elements, principles of landscape architecture and relate to the necessity of being sensitized towards environmental concerns and sustainable site planning.
37	Landscape Architecture II		3201549.3	CO 3	Students will be able to apply their knowledge in sustainable site planning and designing based on various factors for achieving functional (activity, user, space relation), aesthetic, Technical (construction and material), environmental (climatic, socio-geographic) and Cultural goals which shall be integrated in built and inbuilt spaces.
			3201549.4	CO 4	Students will understand various elements, principles of landscape architecture and relate to the necessity of being sensitized towards environmental concerns and sustainable site planning.
	~		3201549.5	CO 5	Students will be able to build their interest in sustainable landscape practice by appraising various works in the field and its scope.





			3201549.6	CO 6	The course will guide students to, formulate and develop design proposal for pilot projects culminating into an idea, concept generation and visualization that encourages sensitivity towards environmental concern.
	×		3201550.1	CO 1	Recalling the general science of Fire. Defining the causes of Fire generation & spread.
			3201550,2	CO 2	Understand & summarize the Active Design Strategies, NBC Regulations, Safety Codes
		3201550	3201550.3	CO 3	Application of the knowledge in Design Project or Indian Case study Report.
38	Building Services IV	(SS) & 320151	3201550.4	CO 4	Analyzing of materials, products, & assemblies available in local as well as international markets.
		(PP)	3201550.5	CO 5	Various types of Sound Reinforcing Technologies & their use for large Public Spaces like Stadiums, Assembly Halls etc.
			3201550.6	CO 6	Predict & propose Acoustical design solutions for a given Space by doing R T Calculations using Sabine's Formula
	-	3201552 (SS)	3201552.1	CO 1	The students should be able to relate and recall the various features of the architectural styles which emerged in the 19th and 20th century.
	-		3201552.2	CO 2	The students should be able to interpret and establish a critical viewpoint about contemporary trends and approaches in architectural production.
39	Contempora ry Arch Seminar		3201552.3	CO 3	The students should be able to identify and construct the relevance of the thought process about contemporary architecture in today's context.
			3201552.4	CO 4	The students should be able to inspect, infer and categorize the contemporary trends and approaches in terms of design.
-			3201552.5	CO 5	The students should be able to conduct a critical inquiry into the contemporary thought process and interpret or deduct its relevance / validity in today's context.
		<i>L</i> .	3201553.1	CO 1	Students will work based on their previous knowledge / exposure for further exploration on the topic assigned to them.
40	Elective I	3201553 (SS)	3201553.2	CO 2	Students will understand a particular field of specialization chosen in detail to clarify that field's concepts and application
			3201553.3	CO 3	Students will be able to develop special skills in the particular field of specialization chosen in terms of application by exploring the recent developments in the field of architecture.





3201553.4	CO 4	Students will be able to analyze various examples / case studies / practices in the particular field of specialization chosen and to compare the same with larger context of overall sphere of Architecture.
3201553.5	CO 5	The course will prepare students to determine the importance as well as judge their interest in the particular field of specialization chosen to decide their further course of career.
3201553.6	CO 6	The course will train students to formulate and explore hands-on pilot projects in the particular field of specialization chosen to build their interest and understanding in that field

			FOURTH	H YEAR	B.ARCH - SEM VII
	Design VII	4201554 (SV)	4201554.1	CO 1	To understand Neighborhood planning, urban development & redevelopment, cluster design & community design.
			4201554.2	CO 2	To study Design orientation of advance & specialized buildings- environmental services, climate & acoustic system oriented buildings, their appropriate structural buildings & construction techniques.
			4201554.3	CO 3	Use of Development control rules like, density, zoning, FSI etc. redevelopment and urban conservation techniques.
41			4201554.4	CO 4	Study of urban environment, complex building forms, positive and negative space relationship, Parking Provision, Precincts concept and pedestrian movement.
			4201554.5	CO 5	Leading the students to equip themselves, with Professional Competency and Capabilities to incorporate, detail out the plan, design & execute by using this acquired knowledge / know-how in all their future works / designs, of various Buildings as Professional Architects.
			4201554.6	CO 6	To understand various issues and aspects like sustainability, Earthquake proof construction, barrier free environment, Renewable energy, disaster management, redevelopment etc. and the integration of these aspects in architectural design process





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			4201555.1	CO 1	To find out difference between regular and advanced construction techniques involved by recalling the previous knowledge.
		2.1	4201555.2	CO 2	Student should be able to understand and compare various construction techniques and services involved.
42	Advanced Building Technology	4201555	4201555.3	CO 3	Student should be able to apply the acquired knowledge to solve the various issues related to advanced construction technology and services.
1	Services I	6	4201555.4	CO 4	Student should be able to analyze data (materials, products) available locally and internationally through survey and market study.
			4201555.5	CO 5	The student should able to justify the method selected to solve the problem.
	-	- K	4201555.6	CO 6	The student should be able to propose proper construction technique to improve the design.
			4201556.1	CO 1	The course will enable students to know the architectural practice in India and abroad
	Professional Practice I	4201556 (PP)	4201556.2	CO 2	Students will understand the various factors, which differ in trade, business and types of profession.
			4201556.3	CO 3	Students will be able to apply the knowledge gained from studying different types of trading, businesses, and professions through groups discussing cases in class
43			4201556.4	CO 4	Students will be able to analyze various case studies of offices from efficient planning and design perspective.
			4201556.5	CO 5	Students will have overall review of the profession and its office set up.
			4201556.6	CO 6	The course shall prepare the students to understand the profession of Architecture based on type of work, its rules and regulations and implementation of the same in practice.
			4201557.1	CO 1	The course will enable students to know the context of architectural project beyond site.
44	Urban Studies I	4201557 (SS)	4201557.2	CO 2	Students will understand the implications of various factors such as traffic-transportation, socio- economic, urban landscape etc. influencing the development of urban area.
			4201557.3	CO 3	Students will be able to apply the knowledge gained from studying urban planning principles in the form of assignments like sub-division of land.



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			4201557.4	CO 4	Students will be able to analyze various case studies of residential settlements and housing from urban planning and design perspective.
			4201557.5	CO 5	Students will be able to compare and evaluate different aspects of development of city planning process.
			4201557.6	CO 6	The course should prepare the students to design and make proposals for resolving the issues of complexities of the selected urban area.
			4201558.1	CO 1	To know the Significance of Research in Architecture, To understand the composition of Articles & Literature Elements of Article in a magazine, To choose & Classify the information from the Research Papers, To learn the Methods of Research
45	Research in Architecture I	4201558 (SS)	4201558.2	CO 2	To Organize & Compare the information from the Research Papers, To describe from the previous academic experience, the need for Research in Architecture
40			4201558.4	CO 4	To compare & Classify the Research Methods, To classify & compare the Research content for the individual Topics, How to do analysis of the Research Findings, Application of Research methods
			4201558.5	CO 5	Examining, Simplifying, Deducting, & Deciding the important & relevant content for the Research topic
			4201558.6	CO 6	To Compile, Compose, & Formulate the Research Paper, To explain, Justify, Recommend, & Propose the findings of the individual Research
			4201559.1	CO 1	The student should be able to define various terminologies, importance of subject and how it is useful in practice
	Quantity		4201559.2	CO 2	Student should be able to explain various aspects of topic and relate it with market practice.
46	and Estimation I	(PP)	4201559.3	CO 3	Student should be able to apply the acquired knowledge to solve the problem given.
			4201559.4	CO 4	Student should be able to compare various methods.
			4201559.5	CO 5	The student should able to explain the process.
			4201560.1	CO 1	To know the basic definition and concept of Specification writing
47	Specification Writing I	4201560 (PP)	4201560.2	CO 2	To understand various terms used in writing specifications
			4201560.3	CO 3	To develop skill of writing brief and detailed specification of item of work.





	а 8 с. ²	j.	4201560.4	CO 4	To compare relationship between Specification writing and quantity surveying and estimation and working drawing etc.
			4201560.5	CO 5	To acquaint students with the methodology of writing specifications with reference to building trade, workmanship, performance of different item of work.
	Elective II	4201561 (SS)	4201561.1	CO 1	Students will choose an area of interest based on their previous knowledge / exposure for further exploration.
			4201561.2	CO 2	Students will understand a particular field of specialization chosen in detail to clarify that field's concepts and application.
			4201561.3	CO 3	Students will be able to develop special skills in the particular field of specialization chosen in terms of application by exploring the recent developments in the field of architecture.
48			4201561.4	CO 4	Students will be able to analyze various examples / case studies / practices in the particular field of specialization chosen and to compare the same with larger context of overall sphere of Architecture.
-			4201561.5	CO 5	The course will prepare students to determine the importance as well as judge their interest in the particular field of specialization chosen to decide their further course of career.
			4201561.6	CO 6	The course will train students to explore projects in the particular field of specialization chosen to build their interest and understanding in that field.

			FOURTH	YEAR	B.ARCH - SEM VIII
	1	4201562 (SV)	4201562.1	CO 1	To know the basics and concept of architectural design in urban context
49	Design VIII		4201562.2	CO 2	To understand different layers and Complexity addressing Issues of Character, Identity, Built form, Contextually, Advanced Services etc.
			4201562.3	CO 3	To apply the basic skillset and knowledge in architectural design project by addressing various issues, complexity of functions and aspects in urban context.
			4201562.4	CO 4	To compare and analyze relationship between various design elements and complexities of various function, aspects, issues with respect to design proposal in urban context
			4201562.5	CO 5	To acquaint students method of evaluation by overlapping of various aspects like character, socio-





			6		economic context, traffic and transportation, environment etc in urban context
			4201562.6	CO 6	To create Architectural design of multifunctional complex of buildings in an urban context.
			4201563.1	CO 1	To find out difference between regular and advanced construction techniques involved by recalling the previous knowledge.
			4201563.2	CO 2	Student should be able to understand and compare various construction techniques and services involved.
50	Advanced Building Technology	4201563 (SV)	4201563.3	CO 3	Student should be able to apply the acquired knowledge to solve the various issues related to advanced construction technology and services.
	Services II	Ū.	4201563.4	CO 4	Student should be able to analyze data (materials, products) available locally and internationally through survey and market study.
			4201563.5	CO 5	The student should able to justify the method selected to solve the problem.
			4201563.6	CO 6	The student should be able to propose proper construction technique to improve the design.
		al 4201564 (PP)	4201564.1	CO 1	The course will enable students to know the construction management
	Professional Practice II		4201564.2	CO 2	Students will understand the various factors, which differ in various types of tenders
			4201564.3	CO 3	Students will be able to apply the knowledge gained from studying different types of tenders and contract through groups discussing cases in class
51			4201564.4	CO 4	Students will be able to apply the knowledge gained from studying different types of Articles of Agreement and Conditions of Contract by conducting group discussions in the studio.
	-		4201564.5	CO 5	Students will know the importance and his role as a Valuer
			4201564.6	CO 6	The course should prepare the students to understand the profession of Architecture based on various services, duties and responsibilities to be played.
52	Urban Studies II	4201565 (SS)	4201565.1	CO 1	The course will enable students to relate to the process of urban planning and urban design from the point of view of various urban issues like urban economics, transportation, people centric designs etc.
			4201565.2	CO 2	Students will differentiate between urban planning and urban design and understand the process of both disciplines for its wider applicability.





			4201565.3	CO 3	Students will be able to apply the knowledge of urban design to conduct various surveys to identify urban issues.
		1	4201565.4	CO 4	The course will make students to analyze various the data collected through surveys for various urban issues.
	-	р4. 	4201565.5	CO 5	Students will be able to compare and evaluate the data collected through surveys for resolving the urban issues identified
L	· · ·		4201565.6	CO 6	The course should prepare the students to design and make proposals based on data collected, analyzed and evaluated to resolve the urban issues identified.
	2 5		4201566.1	CO 1	How to conduct a Research focused on an issue related to the built environment
	 		4201566.2	CO 2	Data Assimilation
	Research in	4201566 (SS)	4201566.3	CO 3	Preparation for the Field Survey. Organization of the Survey Questionnaire, Conducting the Survey on Field
53	Architecture 		4201566.4	CO 4	To examine, simplify, & organize the information in the form of in the form of Maps, Graphs, & Pie Charts
			4201566.5	CO 5	Technical Report on an Architectural Research, To decide, to deduct, to prioritize the research content
			4201566.6	CO 6	To Explain to Discuss, to Conclude, to Present the final Research and Proposals in a specific format
			4201567.1	CO 1	The student should be able to define various terminologies, importance of subject and how it is useful in practice
	Quantity Surveying	4201567	4201567.2	CO 2	Student should be able to explain various aspects of topic and relate it with market practice.
54	and Estimation II	(PP)	4201567.3	CO 3	Student should be able to apply the acquired knowledge to solve the problem given.
	2		4201567.4	CO 4	Student should be able to compare various methods.
		×	4201567.5	CO 5	The student should able to explain the process.
-		4201568 (PP)	4201568.1	CO 1	To know the basic definition and concept of Specification writing with respect to services.
55	Specification Writing II		4201568.2	CO 2	To understand various term used in writing speciation in services
			4201568.3	CO 3	To develop skill of writing brief and detailed specification of item of work of services.





			4201568.4	CO 4	To compare relationship between Specification writing and quantity surveying and estimation and working drawing with respect to services
			4201568.5	CO 5	To know the importance of specification of in contract documents and to acquaint students with methodology to write specification of services in building construction.
			4201569.1	CO 1	Students will choose an area of interest based on their previous knowledge / exposure for further exploration.
	Elective III	4201569 (SS)	4201569.2	CO 2	Students will understand a particular allied field chosen in detail to clarify that field's concepts and application and its links with design as a faculty.
			4201569.3	CO 3	Students will be able to develop special skills in the particular allied field chosen in terms of application by exploring the recent developments in the field of architecture.
56			4201569.4	CO 4	Students will be able to analyze various examples / case studies / practices in the particular allied field chosen and to compare the same with larger context of overall sphere of Architecture.
			4201569.5	CO 5	The course will prepare students to determine the importance as well as judge their interest in the particular allied field chosen to decide their further course of career.
			4201569.6	CO 6	The course will train students to explore projects in the particular allied field chosen to build their interest and understanding in that field.

	AD A HALF		FIFTH	YEAR E	B.ARCH SEM IX
	Practical Training	5201570 (SV)	5201570.1	CO 1	The student is able to Define and find appropriate professional practice to undertake practical training under the guidance of experts / professionals.
			5201570.2	CO 2	The student is able to understand various aspect of professional practice under the guidance of architect registered under the council of architecture.
57			5201570.3	CO 3	The student is able to utilize his experience of practical training to develop knowledge of office management, site management, client /consultant interaction and design thinking to become a successful professional.
			5201570.4	CO 4	The student is able to survey, classify and examine different methods and processes used in the professional office to handle an architectural project successfully.





5201570.5	CO 5	The student is able to inculcate an analytical thinking about selection and application of appropriate material and technology.
 5201570.6	CO 6	The student is able to propose an appropriate solution for a specific design requirement related to architectural project under the guidance of experts / professionals.

			FIFTH	YEAR	B.ARCH - SEM X
	/ 		5201572.1	CO 1	To remember and recollect the research done in 8 th semester and decide the architectural project
			5201572.2	CO 2	To shortlist and select suitable case studies , To prepare a questionnaire for doing the case studies
	x		5201572.3	CO 3	To define a concept based on any attribute related to the project to discuss the relevance of concepts for the Design
58	Architectural Design Project	5201571 (SV)	5201572.4	CO 4	To assimilate in a systematic manner the findings of the case studies. To criticize and evaluate the case studies
			5201572.5	CO 5	To develop Visualization skills with the help of fast model making techniques, To present the highlights and the findings of the case studies
			5201572.6	CO 6	Compiling, deducting, deciding, Explaining the overall planning and other details of the project, To present the entire project for viva-voce along with drawings and models in a systematic manner
		5201572 (SS)	5201572.1	CO 1	Students will be shown and told the importance and relevance of Remote Sensing (RS) and GIS software in the field of urban and regional planning, town planning
			5201572.2	CO 2	Students will be explained through demonstration of software its use in smart city planning.
59	Elective IV		5201572.3	CO 3	Students will experiment with the software and try to apply the commands to the given exercise
	* *		5201572.4	CO 4	Students through exercises, will analyze a given urban pocket, by making use of the software
			5201572.5	CO 5	Students will measure and compare their findings with the ideal requirements of urban planning
			5201572.6	CO 6	An elaborate discussion on the applications of the software in disaster management plans, environmental impact assessment plans, etc.





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2.6.1

Teachers and students are aware of the stated Programs and course outcomes of the Programs offered by the institution. (15)

2) Course Outcomes 2019 Pattern



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COURSE OUTCOMES FOR B. ARCH. 2019 PATTERN

Course Objectives as mentioned in syllabus of 2019 Pattern are referred and combined with Bloom's Taxonomy for learning.

	FIRST YEAR B.ARCH - SEM I								
		1201901 (SS)	1201901.1	CO 1	The students should be able to relate the elements of basic design, principles of design, various techniques and sources to improve creativity and multisensory aspects of space to architectural design.				
			1201901.2	CO 2	The students should understand the elements of basic design, principles of design, various techniques and sources to improve creativity and multisensory aspects of space.				
1	Basic Design		1201901.3	CO 3	The students should be able to apply the elements of basic design, principles of composition for space making and also experiment with various techniques and sources to improve creativity.				
			1201901.4	CO 4	The students should be able to examine the various elements of basic design and principles of design and multisensory aspects of space.				
			1201901.5	CO 5	The students should be able to critically appraise the application of elements of basic design, principles of composition and multisensory aspect of space in space making.				
			1201901.6	CO 6	The students should be able to create their own explorations, and spatial design demonstrating the application of elements of basic design and principles of design.				
		1201902 (PP), 1201903 (SV)	1201902.1	CO 1	To know fundamentals of basic building elements from foundation to roof, their functions and behaviors under various conditions, with specific reference to load bearing construction and materials suitable for the same.				
2	Building Constructio n & Materials I		1201902.2	CO 2	To understand principles of designing components of load bearing structures from foundation to roof, their functions and behaviors under various conditions, with specific reference to load bearing construction and materials suitable for the same.				
			1201902.3	CO 3	To apply knowledge of principles of designing components of load bearing structures, their functions and behaviors under various conditions and suitable materials to design building components from foundation to roof.				



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			1201902.4	CO 4	To analyze and examine suitability of various building materials for construction of load bearing structures with reference to their behaviors under various conditions.
		1	1201902.5	CO 5	To validate and compare various building materials for their applicability in load bearing construction with reference to their behaviors under various conditions.
			1201904.1	CO 1	Recalling the Applied Mechanics basics concepts and Theory of Structures and their significance
	Theory of	1201904	1201904.2	CO 2	Understand & summarize the detailed technics and relate them in numerical
3	Structures I	(P)	1201904.3	CO 3	Application of the knowledge in numerical so students will experiment on it , which help them at the time planning
			1201904.5	CO 5	Determine the answer by using or by putting CO2 various values
		1201905 (SS)	1201905.1	CO 1	To learn the language of graphics, architectural drawing techniques, techniques of sketching for recording, studying and communicating objects, buildings and spaces.
	Arch Graphics & Drawing I		1201905.2	CO 2	To understand methods to express simple three dimensional objects and building components Through Technical Drawings, using various graphic projection systems such as orthography, Isometric, Axonometric projections and cut sections.
4			1201905.3	CO 3	To express architectural drawings by applying language of graphics and graphical projection systems such as orthography, Isometric, Axonometric projections and cut sections.
			1201905.4	CO 4	To develop visualization skills by analyzing simple three dimensional objects and building components through Technical Drawings.
			1201905.5	CO 5	To compare various methods for recording, studying and communicating objects, buildings and spaces in order to express architectural design.
			1201905.6	CO 6	To create a set of conceptual and technical drawings in all subjects.
	History of	-	1201906.1	CO 1	To gain an integrated knowledge of settlements, landscape, and architecture as a manifestation of culture and geography.
5	Architectur e & Culture	r 1201906 re (SS)	1201906.2	CO 2	The students should be able to understand Developments in architecture through history as a result of the social, political, and geographical contexts.
			1201906.3	CO 3	The student should be able to relate the linkages between architecture and the socio- cultural, political and economic context of the period.



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			1201906.4	CO 4	The student should be able to analyze the regional and temporal variations in archetypes and the rationale for the same.
	~		1201906.5	CO 5	The student should be able to determine and decide the style of structure from the spatial, structural and decorative elements.
	1 × 1		1201907.1	CO 1	Students will be able to choose from various communication skills for effective communication in architectural education and practice depending upon the need of the project.
		1201907 (SS)	1201907.2	CO 2	Students will be able to demonstrate the use of various communication skills for effective communication in architectural education and practice like written, graphical, verbal, non-verbal as well as digital communication.
	Communic ation Skills		1201907.3	CO 3	Students will experiment with various communication skills for as per need of the project to effectively communicate in architectural education and practice like written, graphical, verbal, non-verbal as well as digital communication.
6			1201907.4	CO 4	Students will be able to categorize and inspect various communication skills for effective communication in architectural education and practice like written, graphical, verbal, non-verbal as well as digital communication.
			1201907.5	CO 5	Students will be able to determine application of various communication skills for effective communication in architectural education and practice like written, graphical, verbal, non-verbal as well as digital communication as per need.
			1201907.6	CO 6	The course should prepare the students to adapt and modify their own methods for effective communication in architectural education and practice like written, graphical, verbal, non-verbal as well as digital communication as per need.
			1201908.1	CO 1	To learn the techniques of various types of paper cutting, folding, pasting, and finishing skills. Memorizing and Defining by practice
7	Workshop I	I 1201908 (SS)	1201908.2	CO 2	To understand methods to express simple three dimensional objects and components through Technical Drawings, using various graphic projection systems such as Orthography, Isometric, Axonometric projections and cut sections and making objects in an innovative way.
			1201908.3	CO 3	To express architectural forms by applying various types of techniques and various ideas.





1201908.4	CO 4	To develop visualization skills by creating and analyzing simple three dimensional objects and different components technically.
1201908.5	CO 5	To compare various methods for creating, molding, studying and communicating objects, buildings and spaces in order to express architectural design.
1201908.6	CO 6	To create set of conceptual and technical models.

	FIRST YEAR B.ARCH - SEM II								
			1201909.1	CO 1	The students should know the aspects of decision making in architectural design such as anthropometry, climate, form, function, structure, and material, experiential quality of space and socio cultural, geographical factors.				
			1201909.2	CO 2	The students should comprehend architectural design as a process of decision making and various aspects related to it.				
8	Architectur al Design I	1201909 (SV)	1201909.3	CO 3	The students should be able to apply knowledge of anthropometry, climate, form, function, structure, material etc. to design a simple space for human use.				
			1201909.4	CO 4	The students should be able to analyse simple spaces and identify factors affecting their design.				
			1201909.5	CO 5	The students should be able to evaluate simple spaces and rural settlements based on anthropometry, climate, form, function, structure, and material, experiential quality of space and socio cultural, geographical factors.				
			1201909.6	CO 6	The students be able to design a simple space for human use.				
		1201910 (P), 1201911 (SV)	1201910.1	CO 1	To know fundamentals of basic building elements from foundation to roof, their functions and behaviors under various conditions, with specific reference to load bearing construction and timber construction.				
9	Building Constructio		1201910.2	CO 2	To understand principles of designing components of timber structures, their functions and behaviors under various conditions for load bearing construction.				
5	n & Materials II		1201910.3	CO 3	To apply knowledge of principles of designing components of timber structures, their functions and behaviors under various conditions for load bearing construction.				
			1201910.4	CO 4	To analyze and co relate various timber components with construction technologies, using timber and timber derivatives.				





			1201910.5	CO 5	To evaluate applicability of timber construction technologies in designing various timber components.
			1201912.1	CO 1	Recalling Simple Stresses and Strains
	Theory of	1004040/	1201912.2	CO 2	Understand & summarize the detailed technics of Simple Stresses and Strains relate them in numerical
10	Structures II	P)	1201912.3	CO 3	Application of the knowledge in numerical so students will experiment on it , which help them at the time planning
			1201912.5	CO 5	Determine the answer by using CO2 or by putting various values
	- 		1201913.1	CO 1	To learn techniques of expressing Composite three- Dimensional objects and buildings formed by additive and interpenetrated solids and to communicate an architectural idea / proposal in a legible and effective manner.
	142		1201913.2	CO 2	To understand various graphical projection systems including sections, perspective projections, use of shades and shadows etc. to communicate an architectural idea / proposal.
11	Arch 11 Graphics & Drawing II	1201913 (SS)	1201913.3	CO 3	To apply various graphical projection systems including sections, perspective projections, use of shades and shadows etc. to communicate an architectural idea / proposal.
			1201913.4	CO 4	To develop visualization skills by analyzing composite three dimensional objects and buildings through various graphical projection systems.
			1201913.5	CO 5	To compare various projection methods for communicating objects, buildings and spaces in order to express architectural design.
			1201913.6	CO 6	To create set of conceptual and technical drawings in all subjects.
			1201914.1	CO 1	To remember the development of Mughal architecture and to gain knowledge about the architectural characteristics and differences of Islamic architecture.
12	History of Architectur	1201914	1201914.2	CO 2	The students should be able to understand the development of architecture with specific reference to form, technology, and ornament as a result of the social, political, and geographical contexts.
	I	(00)	1201914.3	CO 3	The student should be able to relate the linkages between architecture and the socio- cultural, political and economic context of the period.
			1201914.4	CO 4	The student should be able to analyze the regional and temporal variations in archetypes and the rationale for the same.





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			1201914.5	5 CO 5	The student should be able to determine and decide the style of structure from the spatial, structural and decorative elements.
		×	1201915.1	CO 1	Students will be able to relate to the various roles an architect has to play simultaneously and define the nature of Architecture.
			1201915.2	CO 2	Students will understand the scope of Architecture as one is interpreting its evolution through time to explain the definition of architecture.
	Fundament als of	1201915	1201915.3	CO 3	Students will be able to identify various fundamentals of Architecture and develop awareness about their manifestation in Architecture.
13	Architectur e	(SS)	1201915.4	CO 4	Students will be able to decode the Generators of Architectural Design and inspect their relationship with each other and illustrate it graphically.
			1201915.5	CO 5	Students will be able to assess the aesthetic and functional components of Architecture and conduct an appraisal of the same.
			1201915.6	CO 6	The course should prepare the students to construct their own paradigms of Architectural design backed by a theoretical knowledge to test them further in proposing a design solution.
		p 1201916 (SS)	1201916.1	CO 1	To acquire knowledge from all types of workshop machineries, techniques by making three-Dimensional objects and creative forms by abstract and interpenetrated solids and Architectural conceptual idea. Hands on experimentation with various materials,
			1201916.2	CO 2	To understand various graphical projection systems including sections, perspective projections, use of shades and shadows etc. to communicate with an architectural idea / proposal by using a design software.
14	Workshop II		1201916.3	CO 3	To apply various types of material to create models, use of shades and shadows etc. to communicate with an architectural idea / proposal by using design software.
			1201916.4	CO 4	To develop visualization skills by analyzing composite three dimensional objects and buildings through various graphical projection systems with design software and making model.
			1201916.5	CO 5	To compare various projection methods for communicating objects, buildings and spaces in order to express architectural design while creation of various models.
			1201916.6	CO 6	To create models from conceptual and technical drawings.





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			SECO	ND YE	AR B.ARCH - SEM III
-			2201917.1	CO 1	Students will be able to choose from design iteration process at various scales/ levels.
		2201917	2201917.2	CO 2	Students will be able to comprehend relationship between design, visual arts, building construction, climatology, building materials, structure etc and evolve a design solution.
15	Architectur		2201917.3	CO 3	Students will be able to select and experiment with aesthetical, functional (activity, user, space relation), technical (construction and material) and environmental (climatic, socio-geographic) aspects of architectural design.
		(01)	2201917.4	CO 4	Students will be able to classify and re-interpret various sources for inspiration for architectural design such as nature, history, geometry, culture etc.
			2201917.5	CO 5	Students will be able to appraise multi-functional, multi- cellular built environments from various case studies to determine generators for their own design
	1	10	2201917.6	CO 6	The course should prepare the students to develop their own suitable design language for architectural design of multi-functional, multi-cellular built environments.
		2201918 (P), 2201919 (SV)	2201918.1	CO 1	Students will be able to relate the soil study with foundation type and various Structural RCC Components with the materials used in RCC
			2201918.2	CO 2	The students will be able to understand the basic principles of RCC, various Prerequisites and Designing of RCC Structural construction with respect to smaller span structures.
16	Building Constructio n &		2201918.3	CO 3	Students should be able to choose the appropriate type of RCC Components such as types of Beams, Slabs, Staircases and Material such as Concrete types, flooring, paving etc.
	Materials III		2201918.4	CO 4	Students should be able to examine and compare various building materials used in RCC Construction such as concrete, steel etc.
			2201918.5	CO 5	Student should be able to interpret and evaluate various construction technologies as per site situations.
			2201918.6	CO 6	Student will be able to design and develop appropriate construction and working details for a RCC building component up to plinth level for smaller span structures.



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	-		2201520.1	CO 1	Recalling the Euler's and Rankine's Theory for Buckling and Crushing Failure in Columns
17	Theory of Structures	2201920	2201520.2	CO 2	Understand Assumptions and Limitations. Concepts of End Conditions & summarize the detailed technics and relate them in numerical
	III	(P)	2201520.3	CO 3	Application of the knowledge in numerical so students will experiment on it , which help them at the time planning
			2201520.5	CO 5	Determine the answer by using CO2 or by putting various values
			2201921.1	CO 1	Students learn to communicate an architectural idea / proposal in a legible and effective manner through various architectural presentations and rendering techniques
			2201921.2	CO 2	The students shall be able to understand principles of perspective drawings, sketching & CAD by technical methods.
18	Computer Aided 22 Drawing &	2201921 (SS)	2201921.3	CO 3	To produce architectural objects by applying design ideas through various sketching and presentation techniques & CAD illustration software programs.
	Graphics		2201921.4	CO 4	The students will develop their imaginary skills by analyzing different drafting tools & technique.
			2201921.5	CO 5	Students should be able to communicate various ideas through architectural graphic representations (drafting and sketching).
			2201921.6	CO 6	Students should be able to comprehend and express nuances of graphic language through various presentation techniques and methods learnt.
			2201922.1	CO 1	The students should be able to gain the knowledge about development of European architecture through the historical period
	History of Architectur e & Culture III	2201922 (SS)	2201922.2	CO 2	The students should be able to understand the construction technology using the different materials.
19			2201922.3	CO 3	The student should be able to relate the linkages between architecture and the socio- cultural, political and economic context of the period.
			2201922.4	CO 4	The student should be able to analyze the regional and temporal variations in archetypes and the drivers of change, revival, and evolution of architecture
			2201922.5	CO 5	The student should be able to determine and decide the style of structure from the spatial, structural and decorative elements.



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		8	2201923.1	CO 1	To list and relate the basics of Building Services- water supply, systems of drainage and plumbing in building for an existing Architectural Project.
			2201923.2	CO 2	To learn and relate the basics of Building Services- water supply, systems of drainage in building and Garbage disposal for a existing Architectural Project.
		2201923	2201923.3	CO 3	The course intends to inculcate in students the integration of building services in Architectural Design for low, medium and high rise buildings.
20	Building Services I	(P), 2201924 (SS)	2201923.4	CO 4	The course intends to co relate and compare the different options available for waste disposal, rainwater harvesting lighting and electrification, alternative energy sources and existing examples of built structures.
			2201923.5	CO 5	The course intends to enable students to determine the appropriate method building services in architectural design.
	с х ⁷⁶ П		2201923.6	CO 6	The course intends to enable students to determine the appropriate method building services in architectural design.
		y 2201925 (SS)	2201925.1	CO 1	The students should be able to relate climate and architecture, recognize the various climatic zones in India with respective traditional climate responsive architecture.
			2201925.2	CO 2	The students should be able to understand climate as a determinant of architectural design and various climate responsive building design criteria.
	× /		2201925.3	CO 3	The students should be able to apply climate responsive building design for various climates and microclimatic site conditions.
21	Climatology		2201925.4	CO 4	The students should be able to examine, correlate and illustrate the different climate responsive design strategies applicable for site microclimate and climatic zones in India.
			2201925.5	CO 5	The students should be able to compare and justify applicability of various climate responsive building design strategies in architectural design to achieve thermal comfort.
			2201925.6	CO 6	The students should be able to propose climate responsive design solutions to integrate with their architectural design projects.





			SEC		EAR B.ARCH - SEM IV
		2201926 (SV)	2201926.1	CO 1	Students will be able to find out and select attributes of Architectural character through application of indigenous materials, construction technology from the documentation of a settlement in different regional and climatic context.
			2201926.2	co 2	Students will be able to comprehend site specific stimuli through responses to physical, climate, visual, cultural contexts from the documentation of a settlement in different regional and climatic context.
22	Architectur		2201926.3	CO 3	Students will be able to apply zoning, activity distribution, circulation and activity relationships to multiple layering of architectural space
	al Design IX		2201926.4	CO 4	Students will be able to analyze passive solar responses and fenestration design from settlement study to test them in their own designs
			2201926.5	CO 5	Students will be able to appraise function and space studies as well as defined user group specific perception of space and compare it with their own design solutions
			2201926.6	CO 6	The course should prepare the students to develop their own suitable design language for architectural design of multicellular, multiple level spaces by application of principles of functionality, climate, composition, and aesthetics.
			2201927.1	CO 1	Students will be able to relate basic principles of RCC with various Structural RCC Components and materials used in RCC
		2201927 (P), 2201928 (SV)	2201927.2	CO 2	The students will be able to understand the basic principles of RCC, various Prerequisites and Designing of RCC Structural construction with respect to cantilever slabs, staircase and vertical transportation.
23	Building Constructio n &		2201927.3	CO 3	Students should be able to choose the appropriate type of materials, RCC component type and detailing for various types of building components.
	Materials IV		2201927.4	CO 4	Students should be able to examine and compare various building materials and technology used in construction such as concrete, steel, damp proofing materials, glass and plastics. etc.
			2201927.5	CO 5	Student should be able to interpret and evaluate various construction technologies and detailing as per site situations such as door types, lift or escalator types.





			0004007.0		Student will be able to design and develop appropriate
			2201927.6		construction and working details for a RCC building component in superstructure smaller span structures.
			2201929.1	CO 1	Recalling Wood by W.S Method, Introduction to I.S.883 Study of Wood as a Material. Different Grades Available
24	Theory of Structures	2201929	2201929.2	CO 2	Understand Design of Wood & summarize the detailed technics and relate them in numerical
	IV	(P)	2201929.3	со з	Application of the knowledge in numerical so students will experiment on it , which help them at the time planning
			2201929.5	CO 5	Determine the answer by using CO2 or by putting various values
		2201930 (SS)	2201930.1	CO 1	The students should have basic introduction to Multidisciplinary nature of environmental studies with focus on Natural Resources, Eco Systems, Biodiversity and its conservation, Environmental Pollution, Environment Legislation and Social aspects of environment, Environment friendly buildings.
25	Environme		2201930.2	CO 2	The students understand Multidisciplinary nature of environmental studies, current environmental issues and its interconnectedness with architecture/development.
20	Science		2201930.3	CO 3	The students should be able to apply knowledge of environmental studies to understand interconnectedness of current environmental issues and architecture/development.
			2201930.4	CO 4	The students should be able to analyze current environmental issue and its interconnectedness with architecture/development.
ļ			2201930.5	CO 5	The students should be able to judge and recommend architectural interventions to minimize current environmental issues.
	-	×	220193 1.1	CO 1	The students should be able to gain the developments in architecture of the post-medieval Western World.
	History of		2201931.2	CO 2	The students should be able to understand the development of architecture with specific reference to form, technology, and ornament.
26	Architectur e & Culture IV	2201931 (SS)	2201931.3	CO 3	The student should be able to relate the linkages between architecture and the socio- cultural, political and economic context of the period.
			2201931.4	CO 4	The student should be able to analyze the regional and temporal variations in archetypes and the drivers of change with respect to contemporary architecture of the world with respect to historical precedents.





			2201931.5	CO 5	The student should be able to determine and decide the style of structure from the formal, structural, and stylistic aspects of architectural development.
			2201932.1	CO 1	To list and relate the basics of Building Services- water supply, systems of drainage and plumbing in building for an existing Architectural Project.
		5	2201932.2	CO 2	To learn and relate the basics of Building Services- water supply, systems of drainage in building and Garbage disposal for an existing Architectural Project.
		2201932	2201932.3	CO 3	The course intends to inculcate in students the integration of building services in Architectural Design for low, medium and high rise buildings.
27	27 Building Services II	ilding (P), /ices II 2201933 (SS)	2201932.4	CO 4	The course intends to co relate and compare the different options available for waste disposal, rainwater harvesting lighting and electrification, alternative energy sources and existing examples of built structures.
2			2201932.5	CO 5	The course intends to enable students to determine the appropriate method building services in architectural design.
			2201932.6	CO 6	The course intends to enable students to determine the appropriate method building services in architectural design.
			2201934.1	CO 1	To introduce students to the various factors related to Site Survey and Analysis relevant to Architectural Site Planning
		. ¹⁵ е	2201934.2	CO 2	Understand the basic principles of surveying for vertical, horizontal, linear and angular measurements to arrive at solutions to basic surveying problems.
	8 Site Survey 2201934 & Analysis (SS)	2201934	2201934.3	CO 3	Understanding leveling (auto level, theodolite) and using it in field of construction. Further draw contours.
28		(SS)	2201934.4	CO 4	Analyze type of survey operation required for problem solving in field to perform.
			2201934.5	CO 5	The course will prepare students to determine the importance as well as judge their interest in the particular field of specialization chosen to decide their further course of career.
		1	2201934.6	CO 6	Design and implement different types of curves for deviating type of alignments, and Creating surveying techniques to align highway and railway curves.





			THI	RD YE	AR B.ARCH - SEM V
		ur n 3201935 (SV)	3201935.1	CO 1	Students will be able to define the role of Campus planning for designing buildings with different functions, requiring spaces of different scales and employing suitable structural systems. Also, students are expected to address functional aspects of design and the building services such as storm water management, locations of water tanks, sewage disposal system, and etc.to sustain campus by itself.
			3201935.2	CO 2	Students will understand various socio-cultural patterns, geographic context and identify the needs of the users and the site to evolve a sustainable design along with aesthetic aspects of Design, spatial attributes and formal characteristics.
29	Architectur al Design IV		3201935.3	CO 3	Students will be able to apply their knowledge in sustainable site planning and designing based on various factors for achieving functional (activity, user, space relation), aesthetic, Technical (construction and material), environmental (climatic, socio-geographic) and Cultural goals which shall be integrated in built and inbuilt spaces.
			3201935.4	CO 4	Students will be able to analysis and synthesis of various design parameters in built-unbuilt spatial relationship; also classify and re-interpret various sources for inspiration for architectural design such as nature, history, geometry, culture Topography, context, philosophy, material, existing vegetation etc.
Q.			3201935.5	CO 5	Students will be able to appraise multi-functional, multi- cellular built environments from various case studies to determine generators for their own design
			3201935.6	CO 6	The course will guide students to, formulate and develop design proposal for pilot projects culminating into an idea, concept generation and visualization that encourages sensitivity towards their own suitable design language for multi-functional, multi-cellular built environments.
		3201936 (PP), 3201937 (SV)	3201936.1	CO 1	The student is able to identify and relate different types of Interior elements, variations in frame structure, RCC flooring systems and single basement construction.
30	Building Constructio n & Materials V		3201936.2	CO 2	The student is able to understand characteristics and properties of various Interior elements, variations in frame structure, RCC flooring systems and single basement construction.
			3201936.3	CO 3	The student is able to make use of technology to develop different possibilities of assembling interior elements.





			3201936.4	CO 4	The student is able to survey, classify and examine different types of technology and materials suitable for Interior elements, variations in frame structure, RCC flooring systems and single basement construction.
			3201936.5	CO 5	The student is able to inculcate an analytical thinking about selection and application of appropriate material and technology.
			3201936.6	CO 6	The student is able to propose an appropriate solution for a specific design requirement related to Interior elements, frame structure, RCC flooring systems or single basement construction.
			3201938.1	CO 1	Recalling theory only on Support Systems and Reinforcement Detailing in the various Cases
31	Theory of Structures	3201938(3201938.2	CO 2	Understand & summarize the detailed technics of Staircase Support Systems and relate them in numerical
	V	P)	3201938.3	CO 3	Application of the knowledge in numerical so students will experiment on it , which help them at the time planning
			3201938.5	CO 5	Determine the answer by using CO2 or by putting various values
		3201939 (SS)	3201939.1	CO 1	Students will be able to define the scope of Landscape architecture based on their knowledge and exposure on various factors which are required in landscape practice.
			3201939.2	CO 2	Students will understand different socio-cultural patterns, geographic context and address the needs of the users and the site and evolve a sustainable design
	Landscape		3201939.3	CO 3	Students will be able to apply their knowledge in site planning and designing based on various factors for achieving functional, aesthetic, environmental and cultural goals
32	Architectur e		3201939.4	CO 4	Students will be able to discover, classify, and analyze different natural and manmade aspects such as Microclimate, topography, hydrology, vegetation, physical and socio-cultural context through various examples / case studies / practices in field of landscape architecture.
			3201939.5	CO 5	Students will be able to build their interest in landscape architecture by appraising various works in the field and its scope.
			3201939.6	CO 6	The course will guide students to, formulate and develop design proposal for pilot projects culminating into an idea, concept generation and visualization that encourages creative thinking.





			3201940.1		The students should be able to relate and recall the various features of the architectural styles which emerged in the 19th and 20th century.
			3201940.2	2 CO 2	The students should be able to interpret and establish a critical viewpoint about contemporary trends and approaches in architectural production.
33	Elective I (Contempo rary	3201940 (SS)	3201940.3	CO 3	Application of the knowledge gained through the study of history of architecture to analyze contemporary architecture.
	e)		3201940.4	CO 4	To analyze the contemporary trends/approaches in architectural production in terms of design, practices, its perception, appreciation and critical discourses.
			3201940.5	CO 5	To critically reflect and comment on contemporary architecture across the world.
		~	3201940.6	CO 6	The students will be able to hypothesize and develop their individual view point and construct an argument to put it across.
	4 Building Services III	3201941 (P), 3201942 (SS)	3201942.1	CO 1	To obtain knowledge of technical and design aspects of natural ventilation, heating, cooling and HVAC systems and their components.
			3201942.2	CO 2	To comprehend natural ventilation, heating, cooling and HVAC services as an integral part of architectural design process and to understand its working principles, components, materials and provisions in architectural design.
34			3201942.3	CO 3	To have application of functional and aesthetic aspects of natural ventilation, heating, cooling and HVAC systems in architectural design.
			3201942.4	CO 4	To analyze and compare suitability of various ventilation systems in buildings, with respect to their working principles, components, materials and provisions in architectural design.
			3201942.5	CO 5	To judge suitability of different HVAC systems in buildings after estimating cooling loads of spaces.
			3201942.6	CO 6	To design air conditioning system and ducting layout for a space or part of a building.
			3201943.1	CO 1	To know the basics of working drawing for Load Bearing Structure
35	Working	3201943	3201943.2	CO 2	To understand various terms used in working drawing along with graphical representation and annotations
	Drawing I	(SS)	3201943.3	CO 3	To develop and apply graphical representation in working drawing.
li -			3201943.4	CO 4	To classify, analyze and compare various drawings and its co-relation with each other





	3201943.5	CO 5	To acquaint students with the methodology and sequence of various working drawings and its importance in professional practice
Ĩ.	3201943.6	CO 6	To create a working drawing set of an architectural design.

	THIRD YEAR B.ARCH - SEM VI						
×	Architectur al Design V	3201944 (SV), 3201945 (P)	3201944.1	CO 1	Students will be able to define the role of Campus planning for designing buildings with different functions, requiring spaces of different scales and employing suitable structural systems. Also students are expected to list down the building services such as storm water management, locations of water tanks, sewage disposal system, etc.to sustain campus by itself.		
			3201944.2	CO 2	Students will understand various socio-cultural patterns, geographic context and identify the needs of the users and the site to evolve a sustainable design.		
36			3201944.3	со з	Students will be able to apply their knowledge in sustainable site planning and designing based on various factors for achieving functional (activity, user, space relation), aesthetic, Technical (construction and material), environmental (climatic, socio-geographic) and Cultural goals which shall be integrated in built and inbuilt spaces.		
			3201944.4	CO 4	Students will be able to analysis and synthesis of various design parameters in built-unbuilt spatial relationship; also classify and re-interpret various sources for inspiration for architectural design such as nature, history, geometry, culture Topography, context, philosophy, existing vegetation etc.		
			3201944.5	CO 5	Students will be able to appraise multi-functional, multi- cellular built environments from various case studies to determine generators for their own design		
			3201944.6	CO 6	The course will guide students to, formulate and develop design proposal for pilot projects culminating into an idea, concept generation and visualization that encourages sensitivity towards their own suitable design language for multi-functional, multi-cellular built environments.		
37	Building Constructio n & Materials	3201946 (SV)	3201946.1	CO 1	The student is able to identify and define different type of building materials, fencing and Gates, earthquake resistant frame structures, modular co-ordination and steel structures.		
	VI		3201946.2	CO 2	The student is able to understand characteristics and properties of various building materials, earthquake		





			-		resistant frame structures, fencing and Gates, modular co-ordination and steel structures.
1	4 g		3201946.3	CO 3	The student is able to make use of technology to develop different possibilities for steel Trusses, earthquake resistant frame structures, modular co- ordination and steel structures.
	843		3201946.4	CO 4	The student is able to survey, classify and examine different types of technology and materials suitable for building construction.
			3201946.5	CO 5	The student is able to inculcate an analytical thinking about selection and application of appropriate material and technology.
			3201946.6	CO 6	The student is able to propose an appropriate solution for a specific design requirement related to steel trusses, earthquake resistant frame structures, modular co-ordination and steel structures.
	Theory of Structures VI	3201947(P)	3201947.1	CO 1	Recalling the theory only on Doubly Reinforced Beams, T and L Beams and to adopt span to depth ratios for
38			3201947.2	CO 2	Understand columns across multiple floors changing grade and percentage of steel and grade of concrete & summarize the detailed technics and relate them in numerical
JU			3201947.3	CO 3	Application of the knowledge OF lateral pressure and understand the proportioning and stability of a gravity retaining wall in numerical so students will experiment on it, which help them at the time planning
			3201947.5	CO 5	Determine the answer by using CO2 or by putting various values
	7 1	3201948 (SS)	3201948.1	CO 1	To be able to search, identify and select the topics of interest and to enhance knowledge & personal skill by listening, memorizing and improving cognitive abilities. And to know the significance of research in architecture and ethical practices in Research
	Research in Architectur e I		3201948.2	CO 2	To develop understanding for various aspects of research in summarizing, categorizing, comparing and inferring its value of association with different fields.
39			3201948.3	CO 3	To prepare and articulate the information collected
			3201948.4	CO 4	To organize, appraise and explain the various parameters of research correlating them with diverse domain
			3201948.5	CO 5	To be able to validate, comment, review or criticize various parameters of research topics.
			3201948.6	CO 6	The course will facilitate to compose, write and formulate the synopsis for their pilot project.





40	Elective II	3201949 (SS)	3201949.1	CO 1	Students will choose an area of interest based on their previous knowledge / exposure for further exploration.
			3201949.2	CO 2	Students will understand a particular field of specialization chosen in detail to clarify that field's concepts and application.
			3201949.3	со з	Students will be able to develop special skills in the particular field of specialization chosen in terms of application by exploring the recent developments in the field of architecture.
			3201949.4	CO 4	Students will be able to analyze various examples / case studies / practices in the particular field of specialization chosen and to compare the same with larger context of overall sphere of Architecture.
			3201949.5	CO 5	The course will prepare students to determine the importance as well as judge their interest in the particular field of specialization chosen to decide their further course of career.
			3201949.6	CO 6	The course will train students to explore projects in the particular field of specialization chosen to build their interest and understanding in that field.
		3201950 (P), 3201951 (SS)	3201951.1	CO 1	To obtain knowledge of technical and design aspects of generation and propagation of sound, properties of sound & the fire triangle, causes, impacts, basic terminology of fire protection
	Building Services IV		3201951.2	CO 2	To comprehend construction for acoustical treatment as an integral part of architectural design process and to understand Parameters for good acoustical conditions, parameters for noise control materials for it and architectural changes to be made in designing a structure. To comprehend construction for occupancy based classification of buildings, fire zones, construction types, fire rating requirements
41			3201951.3	CO 3	To have application of functional and aesthetic aspects of acoustics and fire safety in architectural design.
			3201951.4	CO 4	To analyze and compare suitability of various acoustical treatments in buildings, with respect to their working principles, components, materials and provisions in architectural design. To analyze and compare suitability of various firefighting installations, with respect to their working principles, components along with passive design strategies for fire protection
			3201951.5	CO 5	To judge suitability of different acoustical treatments after Reverberation time calculations and provide recommendations for acoustical treatment. To judge suitability of different fire protection measures in buildings.





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	1		3201951.6	CO 6	To design acoustical system and for a space or part of a building. To design passive and active fire protection for a space or part of a building.
42	Working Drawing II	3201952 (SS)	3201952.1	CO 1	To know the basics of working drawing for RCC frame structure
			3201952.2	CO 2	To understand various term used in working drawing along with graphical representation and annotations
			3201952.3	CO 3	To develop and apply graphical representation in working drawing.
			3201952.4	CO 4	To classify, analyze and compare various drawings and its co-relation with each other
			3201952.5	CO 5	To acquaint students with the methodology and sequence of various working drawings and its importance in professional practice



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2.6.1

Teachers and students are aware of the stated Programs and course outcomes of the Programs offered by the institution. (15)

3) Course Structure B.Arch SPPU (Savitribai Phule Pune University)

SAVITRIBAI PHULE PUNE UNIVERSITY

[Formerly the University of Pune]



COURSE STRUCTURE

FIVE YEAR DEGREE COURSE IN ARCHITECTURE

[B.ARCH.]

TO BE IMPLEMENTED FROM 2019-20



BOARD OF STUDIES IN ARCHITECTURE FACULTY OF SCIENCE AND TECHNOLOGY

BACHELOR OF ARCHITECTURE COURSE STRUCTURE AND RULES

PREAMBLE

The New Syllabus of the B.Arch. course hence forth to be referred as the 2019 Pattern, to be implemented from the year 2019-20, is designed to address the rising expectations of knowledge to be borne by an architect. The interdisciplinary nature of the field of architecture demands integration of knowledge domains from various disciplines such as humanities, art, and technology and so on. However, what distinguishes an architect is the design knowledge and ability to employ the knowledge from the various disciplines for arriving at a solution to a problem.

Hence the syllabus has been designed such that the professional core subjects are supported by building science and technology courses, professional ability enhancement courses and the elective courses. The professional ability enhancement courses and the practical training of one semester focus on connecting the students with the practice. The elective courses enable an exposure to some other domain or nurtures the students' proficiency or skill. The Audit courses are introduced to acknowledge the knowledge that the student seeks in his/her area of interest but not directly contribute to the CGPA.

At the end of the course the graduating student shall be able to methodically approach a problem of creating a built environment be it a small house or a township by employing knowledge from various domains and at the same time making it safe, equitable, feasible and environment friendly. Education needs to equip the student to face the challenges and demands in the field by imbibing first principles.

As per the University guidelines, the course is structured upon the Credit System Based Assessment. The syllabus is structured with the following objectives and expected outcomes

PROGRAM EDUCATIONAL OBJECTIVES[PEO]-

- 1. **Theoretical Base**—To establish strong theoretical base and understanding of Architecture and work of an architect.
- 2. **Knowledge and Skills**-To inculcate design sensitivity and ability, as well as knowledge in the domains of humanities, technology &art and impart skills so as to equip the graduate student to undertake work of an architect.
- 3. Values Sensitize the students to the universal values of equity, environmental care, accessibility, and respect for heritage and equip them to address these through design.
- 4. **Research** -Train the students to methodically research a issue or a situation to find a creative solution to meet the contextual challenges in the realm of changing technologies, socio economic and cultural changes.
- 5. **Practice and Ethics-** To enable the students to practice as architects and imbibe them with the knowledge of the professional practice and ethics.
- Changes and Diversification- To expose the students to the changes in architectural practice, diversifications and evolving role of an architect.

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PROGRAM OUTCOMES [PO]

- 1. **Knowledge** -Understanding about role of various knowledge domains such as humanities, technology, and environment in design of built environment.
- 2. **Principles & Theory-** Knowledge of principles of architecture & theoretical knowledge and its application in design.
- 3. Creativity Creative and design thinking ability.
- 4. **Practice** Ability to understand real life situation of Architectural Practice and to work with ethical and professional responsibilities.
- 5. Collaborative Working -Ability to communicate effectively and work in interdisciplinary groups.
- 6. **Inclusivity** -Sensitivity in design for inclusivity, equity, environment, diverse cultures, and heritage.
- 7. **Technological Knowhow**-Ability to review, comprehend and report technological developments in the profession of architecture and construction.
- 8. **Ability to choose Area of Specialisation or Practise** Able to judge one's area of interest and accordingly choose the field of practice.

Rule no.1: ELIGIBILITY FOR ADMISSION.

Eligibility Criteria: Students seeking admission to First year of Bachelor's degree course in Architecture must fulfil the eligibility criteria laid down by Savitribai Phule Pune University / Govt. of Maharashtra / Council of Architecture as applicable from time to time.

Rule no.2: SCHEME OF ASSESSMENT.

A candidate to be eligible for the degree of Bachelor of Architecture will be required to appear for and pass examinations as under:

	Semester Numbers	Credits
1	Semester 1	28
2	Semester 2	28
	Total credits for First Year B.Arch.	56
3	Semester 3	28
4	Semester 4	28
	Total credits for Second Year B.Arch.	56
5	Semester 5	28
6	Semester 6	28
	Total credits for Third Year B.Arch.	56
7	Semester 7	28
8	Semester 8	28
	Total credits for Fourth Year B.Arch.	56
9	Semester 9	14
10	Semester 10	24
	Total credits for Fifth Year B.Arch.	38
	Total credits	262
Total	Cradita af the Owner and	



Total Credits of the Course = 262

Colleges may offer the students audit courses one per semester [Sem I to Sem VIII]. The students may choose to opt these courses. The passing in audit courses is by clearance and they are non- credits courses and are not part of the SGPA / CGPA calculation.