

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

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							
			1201901.1	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 (SS)	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.		
	Design	(55)	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.		



			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.
			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	Theory of 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.
			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	Arch Graphics & Drawing I		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.
	l liete = : = f		1201906.1	CO 1	To gain an integrated knowledge of settlements, landscape, and architecture as a manifestation of culture and geography.
5	History of Architectur e & Culture	1201906 (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.
			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.
			1201907.2	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	1201907 (SS)	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	Communic ation Skills		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	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		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.				
	3		1201909.4	CO 4	The students should be able to analyze 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),	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.				
3 	n & Materials II	1201911 (SV)	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.				



			1201010 5	CO 5	To evaluate applicability of timber construction
			1201910.5		technologies in designing various timber components.
			1201912.1	CO 1	Recalling Simple Stresses and Strains
	Theory of	1001010/	1201912.2	CO 2	Understand & summarize the detailed technics of Simple Stresses and Strains relate them in numerical
10	Structures II	1201912(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.
		1201913 (SS)	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 Graphics & Drawing II		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 e & Culture	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.
	II	(SS)	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.



			1201914.5	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.
		/orkshop 1201916 II (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.
	Workshop II		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			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.



	SECOND YEAR B.ARCH - SEM III							
			2201917.1	CO 1	Students will be able to choose from design iteration process at various scales/ levels.			
			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 al Design II	2201917 (SV)	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.			
	ar Design ii	(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			
			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			
	Building Constructio n &		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			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
17	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 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
			2201922.2	CO 2	The students should be able to understand the construction technology using the different materials.
19	History of Architectur e & Culture	2201922 (SS)	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.
	III		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.



			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	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.
			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.



	SECOND YEAR B.ARCH - SEM IV								
			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	2201926.3	CO 3	Students will be able to apply zoning, activity distribution, circulation and activity relationships to multiple layering of architectural space				
22	al Design III	(SV)	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				
			2201927.2	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 (P), 2201928	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	(SV)	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.				



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					Ctudent will be able to decign and develop annuarieta
			2201927.6	CO 6	Student will be able to design and develop appropriate 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
24	IV	(P)	2201929.3	CO 3	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	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.
	Environme		2201930.2	CO 2	The students understand Multidisciplinary nature of environmental studies, current environmental issues and its interconnectedness with architecture/development.
25	ntal Science	(SS)	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.
			2201930.5	CO 5	The students should be able to judge and recommend architectural interventions to minimize current environmental issues.
			2201931.1	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.
			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	Building Services II	(P), 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.
			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
			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.
	Cita Cumuau	2204024	2201934.3	CO 3	Understanding leveling (auto level, theodolite) and using it in field of construction. Further draw contours.
28	Site Survey & Analysis	(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.
			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.



	THIRD YEAR B.ARCH - SEM V								
			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	l Design 3201935	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.				
			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.				
		3201937	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
21	Theory of	3201938(3201938.2	CO 2	Understand & summarize the detailed technics of Staircase Support Systems and relate them in numerical
31	Structures 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
	Landscape Architectur e	hitectur 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
			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			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	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.
			3201940.2	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.
	Architectur e)	(33)	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.
		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.
	Building Services III		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
33	Drawing I	(SS)	3201943.3	CO 3	To develop and apply graphical representation in working drawing.
			3201943.4	CO 4	To classify, analyze and compare various drawings and its co-relation with each other



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

THIRD YEAR B.ARCH - SEM VI								
			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	Architectur al Design V	3201944 (SV), 3201945 (P)	3201944.3	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.			
			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 &	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.			
	Materials VI		3201946.2	CO 2	The student is able to understand characteristics and properties of various building materials, earthquake			



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					resistant frame structures, fencing and Gates, modular co-ordination and steel structures.
			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 coordination and steel structures.
			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.
			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	Theory of Structures VI	3201947(P)	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
30			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
			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	3201948	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	Architectur	(SS)	3201948.3	CO 3	To prepare and articulate the information collected
	e l		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.



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			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	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.
40	Elective II	3201949 (SS)	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	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
			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	Building Services IV	(P), 3201951	3201951.3	CO 3	To have application of functional and aesthetic aspects of acoustics and fire safety in architectural design.
		(SS)	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.



			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.
			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
42	Working Drawing II	3201952 (SS)	3201952.3	CO 3	To develop and apply graphical representation in working drawing.
	Drawing ii		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

			FOUR	TH YE	AR B.ARCH - SEM VII
			4201953.1	CO 1	The student is able to identify the various features involved in the urban fabric in terms of typology, area, function and context.
			4201953.2	CO 2	To understand the housing in urban context, preferably in a different socio-cultural-economic setting than the institute and document the study in the form of a report various issues which need to be considered for envisaging a design project in totality.
43	Architectur al Design VI	4201953 (SV)	4201953.3	CO 3	The student is able to apply the various issues studied in the urban context to the design of a master plan and architectural design regarding housing with reference to the context.
			4201953.4	CO 4	The student is able to survey, classify and examine different features of the city and their roles, and apply the same with the housing needs of the city.
			4201953.5	CO 5	The student is able to inculcate an analytical thinking about the nature of spaces and the issues faced at the urban level and apply the same.
			4201953.6	CO 6	The student is able to design or create a master plan and an architectural design for housing with the various issues studied in the urban context like services, aesthetics, Rules, traffic regulations, and site and context.
44	Advanced Building Constructio	4201954 (SV)	4201954.1	CO 1	To find out difference between regular and advanced construction techniques involved by recalling the previous knowledge.
	n & Services I	(37)	4201954.2	CO 2	Student should be able to understand and compare various construction techniques and services involved.



			4201953.3	CO 3	Student should be able to apply the acquired knowledge to solve the various issues related to advanced construction technology and services.
			4201953.4	CO 4	Student should be able to analyze data (materials, products) available locally and internationally through survey and market study.
			4201953.5	CO 5	The student should able to justify the method selected to solve the problem.
			4201953.6	CO 6	The student should be able to propose proper construction technique to improve the design.
			4201955.1	CO 1	The course will enable students to know the meaning of urban planning, urban design, neighborhood planning, high-rise housing, slum rehabilitation, public housing, town planning schemes etc.
		4201955 (SS)	4201955.2	CO 2	To make Students understand the implications of various factors such as traffic-transportation, socioeconomic, urban landscape etc. influencing the development, rationale of urban regulatory controls.
45	Urban		4201955.3	CO 3	To make Students apply the learnt Urban Design Principles and Urban Planning Theories.
45	Studies I		4201955.4	CO 4	To make Students analyses knowledge gained from studying urban planning principles of case specific examples in the current context.
			4201955.5	CO 5	To enable Students to compare and evaluate, different aspects of the impact of architectural project beyond the site and neighborhood.
			4201955.6	CO 6	The course should prepare the students to design, develop and make proposals for resolving the complexities by addressing the requirements of the selected urban areas.
		4201956	4201956.1	CO 1	To be able to recollect and review the work done of the topic of interest selected in the previous semester 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
46	Research in Architectur e II		4201956.2	CO 2	To develop understanding for various aspects of research in summarizing, categorizing, comparing and inferring its value of association with different fields by delimiting the scope of research
			4201956.3	CO 3	To apply various methods of data collection and prepare and articulate the information collected
			4201956.4	CO 4	Analyze To organize, appraise and explain the various parameters of research correlating them with diverse domain



			4201956.5	CO 5	Evaluate To be able to validate, comment, review or criticize various parameters of research topics
			4201956.6	CO 6	Create The course will facilitate to compose, write and formulate the research paper for their pilot project.
			4201957.1	CO 1	Students will choose an area of interest (from Art and design or Technology and management or social-humanities and history domain) based on their previous knowledge / exposure for further exploration.
			4201957.2	CO 2	Students will understand a particular field of specialization (from Art and design or technology and management or social-humanities and history domain) chosen in detail to clarify that field's concepts and application.
		4201957 (SS)	4201957.3	CO 3	Students will be able to develop special skills in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen in terms of application by exploring the recent developments in the field of architecture.
47	Elective III		4201957.4	CO 4	Students will be able to analyze various examples / case studies / practices in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen and to compare the same with larger context of overall sphere of Architecture.
			4201957.5	CO 5	The course will prepare students to determine the importance as well as judge their interest in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen to decide their further course of career.
			4201957.6	CO 6	The course will train students to formulate and explore hands-on pilot projects in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen to build their interest and understanding in that field.
	Quantity		4201958.1	CO 1	The student should be able to define various terminologies, importance of subject and how it is useful in practice.
48	Surveying &	4201958 (PP)	4201958.2	CO 2	Student should be able to explain various aspects of topic and relate it with market practice.
	Specificatio n Writing I	, ,	4201958.3	CO 3	Student should be able to apply the acquired knowledge to solve the problem given.
			4201958.4	CO 4	Student should be able to compare various methods.



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			4201958.5	CO 5	The student should able to explain the process.
49	Profession al Practice	4201959 (PP)	4201959.1	CO 1	The course will enable students to know the Architectural Practice
			4201959.2	CO 2	Students will understand the various factors, which differ in various types of works
			4201959.3	CO 3	Students will be able to apply the knowledge gained from studying different types of works and contract through groups discussing cases in class
			4201959.4	CO 4	Students will be able to apply the knowledge gained from studying different types of Articles of Agreement and Conditions of Contract through groups discussing cases in class
			4201959.5	CO 5	Students will know the importance and his role as a Valuer.

	FOURTH YEAR B.ARCH - SEM VIII								
	Architectur al Design VII	4201960 (SV)	4201960.1	CO 1	The student is able to identify the various features involved in the urban fabric in terms of typology, area, function and context.				
			4201960.2	CO 2	The student to understand and analyze a location in an urban context, preferably in a different socio-cultural-economic setting than that of the institute and document the study.				
50			4201960.3	CO 3	The student is able to apply the various issues studied in the urban context to the design of a master plan and architectural design with reference to the context.				
50			4201960.4	CO 4	The student is able to survey, classify and examine different features of the city and their roles, and find the lacuna in the area under study.				
			4201960.5	CO 5	The student is able to inculcate an analytical thinking about the nature of spaces and the issues faced at the urban level and apply the same.				
			4201960.6	CO 6	The student is able to design or create a master plan and an architectural design with the various issues studied in the urban context like services, aesthetics, Rules, traffic regulations, and site and context.				
51	Advanced Building Constructio n & Services II	4201961 (SV)	4201961.1	CO 1	To find out difference between regular and advanced construction techniques involved by recalling the previous knowledge.				
			4201961.2	CO 2	Student should be able to understand and compare various construction techniques and services involved.				



			4201961.3	CO 3	Student should be able to apply the acquired knowledge to solve the various issues related to advanced construction technology and services.
			4201961.4	CO 4	Student should be able to analyze data (materials, products) available locally and internationally through survey and market study.
			4201961.5	CO 5	The student should able to justify the method selected to solve the problem.
			4201961.6	CO 6	The student should be able to propose proper construction technique to improve the design.
	Urban Studies II		4201955.1	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.
			4201955.2	CO 2	Students will differentiate between urban planning and urban design and understand the process of both disciplines for its wider applicability.
52		4201962 (SS)	4201955.3	CO 3	Students will be able to apply the knowledge of urban design to conduct various surveys to identify urban issues.
			4201955.4	CO 4	The course will make students to analyze various the data collected through surveys for various urban issues.
			4201955.5	CO 5	Students will be able to compare and evaluate the data collected through surveys for resolving the urban issues identified.
			4201955.6	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.
	Elective IV	IV 4201963 (SS)	4201963.1	CO 1	Students will choose an area of interest (from Art and design or Technology and management or social-humanities and history domain) based on their previous knowledge / exposure for further exploration.
53			4201963.2	CO 2	Students will understand a particular field of specialization (from Art and design or technology and management or social-humanities and history domain) chosen in detail to clarify that field's concepts and application.
			4201963.3	CO 3	Students will be able to develop special skills in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen in terms of application by exploring the recent developments in the field of architecture.



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			4201963.4	CO 4	Students will be able to analyze various examples / case studies / practices in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen and to compare the same with larger context of overall sphere of Architecture.
			4201963.5	CO 5	The course will prepare students to determine the importance as well as judge their interest in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen to decide their further course of career.
			4201963.6	CO 6	The course will train students to formulate and explore hands-on pilot projects in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen to build their interest and understanding in that field.
	Elective V	4201964 (SS)	4201964.1	CO 1	Students will choose an area of interest (from Art and design or Technology and management or social-humanities and history domain) based on their previous knowledge / exposure for further exploration.
			4201964.2	CO 2	Students will understand a particular field of specialization (from Art and design or technology and management or social-humanities and history domain) chosen in detail to clarify that field's concepts and application.
54			4201964.3	CO 3	Students will be able to develop special skills in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen in terms of application by exploring the recent developments in the field of architecture.
			4201964.4	CO 4	Students will be able to analyze various examples / case studies / practices in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen and to compare the same with larger context of overall sphere of Architecture.
			4201964.5	CO 5	The course will prepare students to determine the importance as well as judge their interest in the particular field of specialization (from Art and design or Technology and management or social-humanities and history domain) chosen to decide their further course of career.
			4201964.6	CO 6	The course will train students to formulate and explore hands-on pilot projects in the particular field of



					specialization (from Art and design or Technology and management or social-humanities and history domain) chosen to build their interest and understanding in that field.
		4201965 (PP)	4201965.1	CO 1	The student should be able to define various terminologies, importance of subject and how it is useful in practice.
	Quantity Surveying		4201965.2	CO 2	Student should be able to explain various aspects of topic and relate it with market practice.
55	& Specificatio n Writing II		4201965.3	CO 3	Student should be able to apply the acquired knowledge to solve the problem given.
			4201965.4	CO 4	Student should be able to compare various methods.
			4201965.5	CO 5	The student should able to explain the process.
	Project Manageme nt	4201966 (PP)	4201966.1	CO 1	The course will enable students to know the construction management
			4201966.2	CO 2	Students will understand the various factors, which differ in various types of tenders
56			4201966.3	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
			4201966.4	CO 4	Students will be able to apply the knowledge gained from studying different types of Articles of Agreement and Conditions of Contract through groups discussing cases in class
			4201966.5	CO 5	Students will know the importance and his role as a Project Manager

	FIFTH YEAR B.ARCH SEM IX								
	Practical Training	5201967 (SV)	5201967.1	CO 1	The student is able to Define and find appropriate professional practice to undertake practical training under the guidance of experts / professionals.				
			5201967.2	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			5201967.3	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.				
			5201967.4	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.				



5201967.5	The student is able to inculcate an analytical thinking about selection and application of appropriate material and technology.
5201967.6	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							
	Architectural Design Project	5201968 (SV)	5201968.1	CO 1	To remember and recollect the research done in 8 th semester and decide the architectural project			
			5201968.2	CO 2	To shortlist and select suitable case studies , To prepare a questionnaire for doing the case studies			
			5201968.3	CO 3	To define a concept based on any attribute related to the project to discuss the relevance of concepts for the Design			
58			5201968.4	CO 4	To assimilate in a systematic manner the findings of the case studies. To criticize and evaluate the case studies			
			5201968.5	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			
			5201968.6	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			