

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)
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Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.
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### **School of Architecture**

### **Course Articulation Matrix Y 2022 -23**

### MAPPING OF COURSE OUTCOMES WITH PROGRAM OUTCOMES (POs) and PROGRAM SPECIFIC OUTCOMES (PSOs)

S No	Course	Course Title	СО	Description of the Course Outcome				P									PS	O
	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	22AR1101	Theory of Architecture	CO1	Introduction to Architecture and basic understanding on Architectural space and form development.		1		1										
			(())	To learn the components of building circulation and its relation to architecture.		2		2										
			CO3	An understanding on architectural aesthetics in designing a building & also understand the key role of principles applied in architecture.		3		3										
			CO4	Students should understand the functioning of design process and its application in architectural buildings through case studies.				3						3				3
2	22AR1103	Building Materials - I	COT	Understanding of the building materials Soils and Bricks			2			2								
			CO2	Understanding of the building materials Rocks and Stones						2								
			(() \	Understanding of the building materials Timber & Bamboo								2						



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO4	Understanding of the building materials Lime.			3			3		3						
3	22AR1204	Mechanics of Structures - I	CO1	Understanding the concept of forces and structural systems	1	1												
			CO2	Understanding the sectional properties of structural members			2	2										
			CO3	Analyzing the trusses and plane trusses					3	3								
			CO4	Analysing the columns using Euler's theory and Rankine formulae.								3		3				
4	22AR1206	Building Materials - II	CO1	Understanding of the building materials - Cement and RCC.			2			2								
			CO2	Understanding of the building material - Steel.						2								
			CO3	Understanding of the building material - Glass.								3						
			CO4	Understanding of the building material - Paints.		3						3						
5	22AR2107	Mechanics of Structures - II	CO1	Understanding the concept of simple stresses and strains and elastic properties of solids							1		1					
			CO2	Analyzing determinate beams and plotting shear force and bending moment diagrams						2			2					
			CO3	Analyzing indeterminate beams and plotting shear force and bending moment diagrams						3			3					3



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO4	Understanding the theory of simple bending									3					3
6	22AR1209	Climate Responsive Architecture	CO1	An understanding of elements of climate, human comfort, and human body heat balance.				2										
				Understanding the concept of heat transfer in buildings, sun path diagrams and designing shading devices.	2													
			(())	Understanding air movement for designing buildings accordingly.				3	3									
			CO4	Understanding climate responsive architecture through case studies.	3				3									3
7	22AR2210	Design of Structures - I	((()1	Developing the design of structural components with timber.	1		1											
			(())	Developing the design of steel connections using bolted and welded connections	2		2											
			CO3	Developing the design of steel tension members	3		3											
			('(')/1	Developing the design of steel compression members	3		3											
8	22AR2211	Building Services - I	((()1	To know about the water treatment, distribution, and wastewater treatment methods & disposal.							1							



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO2	Understanding the building sanitation method and different types of plumbing systems								2						
			CO3	To understand the layouts and sanitary layouts of a residence.								3						
			CO4	To understand the use and installation of various plumbing fixtures and to know the sewerage systems for sanitary conveyance.								3						3
9	22AR3114	Design of Structures - II	CO1	Understanding the concept of limit state design of R.C structures							2		2					
			CO2	Developing the design of reinforced concrete beams						3			3					
			CO3	Developing the design of reinforced concrete columns								3	3					
			CO4	Developing the design of reinforced concrete slabs									3					
10	22AR3115	Building Services - II	CO1	Study of electricity, installations, wiring and principles of distribution and safety	2			2										
			CO2	Know the application artificial illumination, and lighting design for various spaces						2				2				
			CO3	Knowledge of air conditioning and ventilation principles evaluate electrical layouts			2						2					



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO4	Understanding properties of sound and Architectural acoustics, and analyzing acoustic concepts and design, learning how to create acoustic and lighting designs to different building types – Studio work			2						2					
11	22AR3219	Building Services - III	CO1	Familiarity with different air conditioning systems, their context of use and basics of planning involved.	2	2												
			((())	An understanding of fire safety, firefighting, fire prevention and installations in buildings.	2	2												
			CO3	An understanding of mechanical transportation systems in a building and their design requirements.	2	2												
			CO4	Ability to integrate services in buildings.			3	3										3
12	22AR4123	Building Services - IV	1 ( ) 1	To gain knowledge about different Building Automation Systems and Controls	2	2												
			(()/	To gain knowledge about different Communication and Security Systems	2	2												
			(()≺	To gain knowledge on the various intelligent systems in Vertical Transportation	2	2												



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			(()4	Ability to integrate the advanced services in Buildings			3	3										3
13	22AR2137	Building Construction - I	CO1	It is required that students should understand materials used in the building, method of construction and application						2	2		2					
			CO2	To understand the components of building and nuances of drawing plan, Elevation, and section along with relevant sketches and details showing method of construction						2	2			2				
			CO3	To understand, analyze the application and different arrangement styles of building materials							3	3					3	
			CO4	Students should be able to analyze the different construction methods and details of contemporary and traditional work method demonstrate the techniques through study models				3			3		3					3
14	22AR2240	Building Construction - II	CO1	To understand the construction of doors and windows in accordance with the type of usage	2		2											2
			CO2	To understand the uses of wooden trusses and staircases in construction industry/practice	2		2											2
			CO3	To understand the installation of paneling, soundproof and light weight partitions			3	3										3



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO4	To understand the techniques of bamboo constructions and the construction techniques of wall and kitchen cabinets			3		3				3					3
15	22AR3143	Building Construction - III	CO1	To understand the construction of doors and windows in accordance with the type of usage	2		2											2
				To understand the use R.C.C in Structural and nonstructural building components in construction industry/practice.	2				2									2
			CO3	Clear understanding of paneling, soundproof and light weight partitions			3	3										3
			( ( )4	Students should also understand the techniques of water proofing and damp proofing.			3		3									3
16	22AR3246	Building Construction - IV	CO1	Understanding of Cement and Concrete properties.						2	2	2						
			CO2	Understanding of Special concrete and Concreting methods.						2	2		2					
			CO3	Understanding of the Reinforced Cement Concrete Construction							3	3						
			CO4	Understanding of Advanced Application Reinforced Cement Concrete Construction.				3			3	3	3					



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17	22AR4125A	Advanced Building Techniques		Familiarity with the advanced construction techniques in RCC and their adoptability to architecture.		1												
			CO2	Understand and apply various pre-engineered Concrete structures, adaptation in large span structures, pre-engineered Steel structures, adaptation in steel frames/space frames and their components.		1												
			CO3	Understand and apply different aspects and technologies involved in the construction of Highrise buildings		2	1											
			CO4	Introduction to advanced building materials and their application in the contemporary architectural practice		2												
18	22AR4125B	Architecture Photography																·
19	22UC0009	Ecology & Environment	CO1	Understand the importance of Environmental education and conservation of natural resources.						2								
			CO2	Understand the importance of ecosystems and biodiversity.												1		
				Apply the environmental science knowledge on solid waste management, disaster management and EIA process.						2								



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
20	22AR4226	Building Construction and Management	CO1	To understand the Objectives and Methods of project Management System			2	!			1	3						
			CO2	To understand various Tools and Techniques to facilitate efficient Management of Projects			2						1					
			CO3	To Analyze Project cost model and steps involved in cost optimization						1		3						
			CO4	To Applying Scientific Evaluation Techniques to Manage Project Durations and resources with Examples								3						
21	22AR5228	Architecture Professional Practice	CO1	To expose students to the daily realities of an architectural practice through Practical Training							2	1						
			CO2	To facilitate an understanding of the evolution of an architectural project from design to execution.			1						1					
			CO3	To enable an orientation that would include the process of development of conceptual ideas, presentation skills.							2	1	2					
			CO4	Involvement in office discussions, client meetings, development of the concepts into working drawings, tendering procedure.										1				
22	22AR4228A	Dissertation	CO1	To understand the importance of reasoning							3	3						



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO2	To select the topic which may eventually culminate in the Architectural Design Thesis in the subsequent semester.			1						1					
			$(\cdot, \cdot)$	To select and apply the concept of reasoning to the chosen topic						2	3	3						
			CO4	To analyze the spaces, connectivity, and the standards of sustainable and service intensive building. Case study										1				
			(()5	To write a report on the research done in the topic with appropriate studies.						2	3	3						
23	22AR4228B	Thesis Seminar																
24	22AR5154	Practical Training / Internship	('(')1	To expose students to the daily realities of an architectural practice through Practical Training							3	3						
			(())	To facilitate an understanding of the evolution of an architectural project from design to execution.			1						1					
			CO3	To enable an orientation that would include the process of development of conceptual ideas, presentation skills.						2	3	3						
				Involvement in office discussions, client meetings, development of the concepts into working drawings, tendering procedure.										1				



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO5	Site supervision during execution and coordination with the agencies involved in the construction process.						2	3	3						
25	22AR1102	History of Architecture - I	CO1	To Understand Primitive Architecture and Ancient settlements in pre-historic times and get knowledge on the Ancient River valley civilizations in the world.			3				2	2						2
			CO2	Understand the Architecture and Planning of Ancient River Valley Civilizations			3	1										2
				Understand the Culture and its influence on Architecture in Ancient Greece and Ancient Rome and its impact on Western Architecture			3				2							
				To study the Built forms in Ancient Greece and Ancient Roman Empire and its monumental Urban Architecture			3			1				1				2
26	22AR1205	History of Architecture - II	CO1	To understand Vedic culture and study the origins of Early Hinduism, Jainism, Buddhism, and its rudimentary forms of construction.	2		3											2
			CO2	To understand Hindu forms of worship, concept, symbolism and to get knowledge on the metaphysical plan of Temple Architecture	2				2									2



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	Code		NO		1	2	1	3 4	5	6	5 7	8	9	10	11	12	1	2
			CO3	To understand and to get knowledge on the temple architecture and temple towns during various periods and empires in South India and North India.			3	3 1										2
			CO4	To Study and to know the character and Architecture of temples of South India and North India in detail			3	3	2					1				2
27	22AR2108	History of Architecture - III	CO1	Understanding the evolution of early Christian and Medieval periods, its Architecture and socio – political changes.	2		13	3										2
				Renaissance and Mannerist Architectures and their practices in Europe, growth of nations and styles of Baroque and Roccoco.	2				2									2
				Understanding the Islamic principles, philosophy, & its relevance to various built forms, and the influence of Islamic architecture on Indian subcontinent. Architecture of various provinces under sultanate rule.			3	3 1										2
			CO4	Study of Architectural developments during Mughal Dynasty, Study of cross culture influence and evolution of secular architecture in princely states			13	3	2									2
28	22AR2212	Site Analysis and Planning	CO1	To make students understand about the basics of site, it's measuring and drawing methodologies.									1					



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	Code		NO	·	1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO2	To explain the importance of analysis of a site required in architectural design and building construction.			2											
			CO3	To make students understand the context of the site with respective to the surrounding land use typology.			2											
			CO4	To discuss about the site planning techniques and layout principles to be followed prior to site designing.				1										
29	22AR3218	Specification, Estimation and Costing	('('))	An understanding of data required and methods of estimation	2													
			1(())	Ability to estimate various quantities using different methods			1											
			CO3	An understanding of the types of estimates and costing	2		2											
			CO4	Knowledge of various specifications and terminology used							1		1					
30	22AR3220	Human Settlements and Planning		Understand the various elements of Human Settlements and the classification of Human Settlements.		1												



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
				Understand familiarize the students with Planning concepts and process in Urban and Regional Planning.				3										
			CO3	Understand the changing dynamics of Urban Form and its planning according to urban transformation				3					2					
			CO4	Understand the interrelationship between Human Settlements structure and Social Dynamics				3					2					
31	22AR4126A	Housing	CO1	Understand housing and Housing issues	2		3											
			CO2	Understand Housing, 5 year plans specific to housing	2				1									
			CO3	Understand Critical Sources of Finance			3	2										
				Understand Planning – Physical, Administration, Socio-Cultural, Sustainable, Financial, Future forecasts, and Trends			3	2										
32	22AR4126B	Intelligent Buildings																
	22AR4229A	Urban Design	CO1	To memorize Urban Design terminologies		3	3							1			1	
33			CO2	To understand Users and Activities in a city		3	3						2					
			CO3	To understand public spaces, streets & Transport		3	3						2	1				
			CO4	To understand Application of Urban Design		3	3						2					



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34	22AR4229B	Transportation Planning																
35	22AR1152	Architectural Drawing - I	CO1	To Understand the Fundamentals of Drawing and Drafting	1		2											2
			CO2	To Understand the Construction and Development of Surfaces for various Basic 3D Shapes.	1				2									2
			CO3	To Understand the representation of various building components and related elements			2	1										2
			CO4	To Understand the representation of a building in plan, elevation &sections. To Understand the Preparation of Simple Measure Drawing			2		2									2
36	22AR1153	Architectural Design Studio -I (Basic Design)	CO1	To Understand the Fundamentals of Drawing and Drafting	2		3											2
			CO2	To Understand the Construction and Development of Surfaces for various Basic 3D Shapes.	2				2									2
			CO3	To Understand the representation of various building components and related elements			3	1										2
			CO4	To Understand the representation of a building in plan, elevation &sections. To Understand the Preparation of Simple Measure Drawing			3		2									2
37	22AR1254	Model Making Workshop	CO1	To understand cutting and sticking for making a model							2							



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			CO2	To understand representing hills, Plateau, water bodies, furniture's, Cars.							2	2						
			CO3	To understand components of a detailed model							2	2						
			CO4	To know different materials and apply the acquired knowledge and create a model Independently by choosing appropriate material and techniques.							2							
38	22AR1256	Architectural Drawing - II	CO1	To Understand the concepts and Scientific Methods of Perspective Drawing and apply Rendering Techniques							2	2						
				To understand the principles of Shade & Shadow and Construct Sciography of Architectural Structures.							2			2				
			CO3	To Understand identification and measuring of specific Architectural Details of Historically significant Buildings.							2			2				
			CO4	To understand the presentation techniques of drawings	2						2							
39	22AR1257	Architectural Design Studio -II	CO1	To make student to remember anthropometric data, conduct desktop/case study and understand collected data towards framing parameters for Bedroom design.		2		2						2			2	



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			CO2	To make student to apply and analyze collected data, to derive concepts, evaluate schematic preliminary design options and final design presentation of a Bedroom for a cine actor.		3												3
				To make student to derive concepts, schematic preliminary design, and final design presentation of a Shop front for a given context.		3								3				3
			CO4	To make student to remember anthropometric data, conduct desktop/case study and understand collected data towards framing parameters for Coffee Shop design.		2		2						2			2	
40	22AR2138	Architectural Design Studio -III	(C)1	To understand and analyze the use, the spaces and the concepts of residential activities.		2		2						2			2	
			CO2	To design a small-scale residential project		3											3	
			CO3	To understand and analyze the spaces, connectivity, and the standards of Institution buildings. To design an institution-oriented building		3								3				3
			CO4	Time Problem design with minimal design agenda		3								3				3
41	22AR2241	Architectural Design Studio -IV	('(')1	To memorize anthropometry, circulation patterns, standards various facilities to be provided.		2		2						2			2	



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			CO2	To create and design spatial planning, circulation, and functionally good community oriented open spaces – <b>Project 1</b>		3		3					3					
			$(7)^{3}$	To create and design functional and activity- oriented community spaces- <b>Project 2</b>		3		3					3	3				
				To analyze the architecture, rural planning, infrastructure, and settlement planning of a village (rural settlement)		3		3					3	3				3
				To document the observations and compile the analysis for presentation – <b>Project 3</b>														
42	22AR3144	Architectural Design Studio -V	(())	To understand and analyze the use, the spaces, and the concepts of different homes for the disabled		2		2						2			2	
			(())	To design a Social oriented building –A Home for physically and mentally challenged- <b>Project 1</b>		3											3	
			CO3	To understand and analyze the spaces, connectivity, and the standards of Institution buildings.		2								2				2
			CO4	To design an institution-oriented building – School of Architecture- <b>Project 2</b> Time Problem - To design an Art center / Museum		3								3				3



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	Code		NO		1	2	!	3 4	5	6	7	8	9	10	11	12	1	2
43	22AR3118A	Interior Design Studio	CO1	To understand the basic design acumen and anthropometry, ergonomics	2			2										2
			CO2	To enhance their skills by applying design concept and theme for small spaces	2				2									2
			11 (1) 4	Apply the skills in Planning of residential spaces with material usage understanding				3 3										3
			CO4	Study and apply anthropometry in hospitality related environment.				3	3									3
44	22AR3118B	Furniture Design Studio	CO1	To understand the basic design acumen and anthropometry, ergonomics	1			1										2
			CO2	To enhance their skills by applying design concept and theme to human scale	1				2									2
			CO3	Apply the skills in Planning of furniture with material usage understanding				2 2										3
			CO4	Study and apply anthropometry in daily use products.				2	2									3
45	22AR3222A	Landscape Design Studio	CO1	To develop an understanding about space design at local level						2	2	2						
			CO2	To develop a skill to integrate various knowledge systems to arrive at a design proposal of an urban scale, the process used for the same						2	2		2					



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	Code		NO	·	1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO3	To make the students understand the area, scale, design, and implementation factors with the involvement of stakeholders							2	2						
			CO4	To make the students work on relatively large project for incorporating multidisciplinary domains in the projects for consideration of the same.				2			2	2	2					
46	22AR3222B	Modular Construction Studio																
47	22AR3247	Architectural Design Studio -VI	CO1	To expose the students to the challenges of designing functionally complicated buildings, having a complex array of activities and services		2		2						2			2	
			CO2	To Design a functionally complex Building (Medium Rise Structure) - <b>PROJECT 1</b>		3											3	
			CO3	To familiarise the students to the task of coordinating integration of structural design and specialised building services in the framework of architectural design		2								2				2
			CO4	To make students understand advanced construction technology and newer building materials.  To Design a functionally complex Building (High Rise Structure) - <b>PROJECT 2</b>		3		3					3	3				3



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	Code		NO	·	1	2	3	4	5	6	7	8	9	10	11	12	1	2
48	22AR4150	Architectural Design Studio -VII	CO1	To memorize anthropometry, circulation patterns, importance of services and building techniques		2		2						2			2	
			CO2	To understand and apply the integration of services into intelligent sustainable building case study		3		3					3					
			CO3	To Create and design spatial planning and functionality in Low Rise – High Density Project. (Project 1)		3		3					3	3				
			CO4	To analyze the spaces, connectivity, and the standards of sustainable and service intensive building. Case-study.  To create design of a sustainable service integrated intelligent green building in High Rise – High Density Project. ( <b>Project 2</b> )		3		3					3	3				3
49	22AR4253	Urban Design Studio	CO1	Understand the role of Services at higher scale in Urban level							2	2						
			CO2	Understand and apply the integration of services into intelligent sustainable building case study			2						2					
			CO3	Create High Density Urban facility as a solution to the Urban area problems, Current issues. ( <b>Project-1</b> )						3	3	3						
			CO4	Analyze the spaces, Transformation according lifestyle changes in Urban population,						3	3	3		3				



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
				connectivity, and the standards of sustainable and service intensive building. Case study. Create design of a sustainable service integrated intelligent green building High Density Project. (Project 2)														
50	22AR5255	Architectural Thesis		Culmination of the development of the student's knowledge, attitudes, and skills over the course of studies in architecture.							3	3						
			CO2	Culmination of the development of the student's knowledge, attitudes, and skills over the course of studies in architecture.							3	3						
			CO3	Culmination of the development of the student's knowledge, attitudes, and skills over the course of studies in architecture.							3	3						
			CO4	Culmination of the development of the student's knowledge, attitudes, and skills over the course of studies in architecture.							3	3						
				Culmination of the development of the student's knowledge, attitudes, and skills over the course of studies in architecture.							3	3						
51	22AR2213	Contemporary Indian Architecture	CO1	Understand the Evolution of Dwellings as base of Traditional and Vernacular styles of India	2		2											



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO2	Understand the Architecture and Planning of various Cities during Medieval Age	2				2									
			CO3	Understand the Culture and Built Forms in Pre – Independence (Colonial Rule) and Post- Independence of India			2	2										
				Understand the Theories of current Architect practices and their applicability in meeting present day Needs			2		2									
52	22AR3116	Contemporary Western Architecture	CO1	Understand Cubism & Constructivism along with various Building styles of Early Modern Architects.	2		2											
				Understand Post Modernism and International Style along with Ideas and Works of Various Architects of that time.	2				2									
			CO3	Understand Critical Regionalism and other alternative practices along with Ideas and Works of Various Architects of that time.			2	2										
			CO4	Understand Deconstructivism along with Forms, Ideas and Concepts followed by Various Architects in their works.			2	2										
53	22AR3117A	Vernacular Architecture	CO1	To understand the Vernacular Architecture, its Approaches & Concepts.	2			2										



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO2	To Understand the Vernacular styles of Buildings in Western, Northern & North-Eastern India.						2				2				
			CO3	To Understand the Vernacular Architectural Styles of Southern India.			2						2					
			CO4	To study and Understand the Influence of Western world on Vernacular Architecture.			2						2					
54	22AR3117B	Sustainable Architecture - I	CO1	To understand the concept of green building need for it in today's context							1							
			CO2	To understand the traditional buildings under different climatic zones and the elements in vernacular buildings								2						
			CO3	Understanding the climatic influences on built environment								3						
			CO4	To understand the importance of site planning and energy efficient landscaping as an important tool in sustainable architecture								3						3
55	22AR3221A	Appropriate Construction Technologies	CO1	Familiarity with the alternative building materials, applying cost effective materials and techniques to resolve environmental issues		1	1											
			CO2	Familiarity with the indigenous construction materials and techniques for building resilience and disaster mitigation		2	2											



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO3	Familiarity with the material and techniques for energy efficient building construction		2	2											
			CO4	Introduction to Building Information Modelling and application of the same in modern construction industry						2								
56	22AR3221B	Sustainable Architecture - II	CO1	To understand the importance of energy efficiency in buildings and strategies involved.	1			1									1	
			CO2	To understand the importance of relevance of water in built environment						2				2				2
			CO3	Introduction to green rating systems and building codes			1						2					2
			CO4	Introduction to simulation and analysis software			1						2					2
57	22AR4124A	Architectural Conservation	CO1	To make students understand about the basics of Conservation in India.								2						2
			CO2	To Study the Conservation Practices.			1										1	
			CO3	To explain the importance & analysis of Urban Conservation			1										1	
			CO4	To Discuss about Conservation planning & Adaptive Conservation.				1									1	



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	Code		NO	·	1	2	3	4	5	6	7	8	9	10	11	12	1	2
58	22AR4124B	Set Design	CO1	To Understand the Background writing and Concept creation for PLAY.									2					2
			CO2	To Study the Technology and concepts involved in Film set design.			1										1	
				To study and making of Background set to resemble the feature, Variation nasality in Lay outing Set			1										1	
			CO4	To Produce a Mock model on Concept allotted and study Lighting and prop Installations.				1									1	
59	22AR4227A	Behavioral Architecture	CO1	To study the activity related to Age groups in public place planning.	1			1									1	
			CO2	To Understand the Behavioral Interface & Building systems in relation to this.						2				2				2
			CO3	To Understand the Behavioral Design process and execution to create evaluation methods.			1						2					2
			CO4	To study and Understand the Influence Behavioral Architecture on Urban Environment.			1						2					2
60	22AR4227B	Disaster Mitigation and Management	CO1	To Understand the necessity for disaster management and measures that are to be followed.									2					2



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO2	To Study the Disaster preparedness and Involving Design Considerations for buildings			1										1	
			CO3	To study the Design considerations for Disaster management and precautions.			1										1	
			CO4	To Understand the Relief & Rehabilitation for Disasters				1									1	
61	22AR1151	Art and Visual Graphic Studio	CO1	Understand the Principles of Drawing.	1									2				2
			CO2	Understand the Types, Properties and Application of Colors.	1									2				2
			CO3	Understand the Painting Variations.	1									2				2
			CO4	Understand the Techniques of Sculpturing.	1									2				2
62	22AR2135	Surveying and Levelling	CO1	Understanding Surveying using Chain and Compass.								2						2
			CO2	Understanding Surveying using Dumpy Level and Theodolite.								2						2
			CO3	Understanding Surveying using Total Station and Alidade.								2						2
			CO4	Applying survey practices in field										2				2
63	22AR2136	Computer Studio - I	CO1	To understand the basics of computer system and their supporting technologies.	1	1												1



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			(())	To create documentation reports, analysis reports; and audio-visual presentations.	1	1												1
			CO3	To reciprocate the tools of 2D visualization to create architectural drawings.	1	1												1
			( ( )/1	To create layouts, plot/print to scale drawings, design and edit 2D graphic images.	1	1												1
64	22AR2239	Computer Studio - II	(()1	To understand interface, workspace, and utilization of tools of 3D modeling software apply the required tools and components in building a 3D model.	1	1												1
			(())	To create documentation reports, analysis reports; and audio-visual presentations.	1	1												1
				To understand, visualize the space and apply the tools of BIM software, identify the need of tools of BIM software.	1	1												1
			CO4	To create a detailed 3D model by working in collaboration by application of advanced tools	1		1											1
65	22AR4148	Working Drawing - I	(()1	To introduce Working drawings and their significance in the construction of buildings.	1						2							2
			CO2	To teach students the essential components of working drawings, notations, drawing standards,				1			2							2



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO3	To strengthen the students' knowledge about preparing working drawings for various building elements.						2		2						2
			CO4	To Improve the construction details knowledge									2	2				2
66	22AR4251	Working Drawing - II	CO1	To train the students to prepare detailed Working drawings for effective execution at construction site.							2	2						2
			CO2	To teach students the essential components of working drawings, notations, drawing standards,			1						2					2
				To preparation of integrated services drawings and detailing for various types of drawings and methods of transmittals and record keeping.						2	2	2						2
			CO4	To update the latest materials knowledge with specifications										2				2
67	22UC1101	Integrated Professional English	CO1	Understand the concepts of grammar to improve communication, reading, and writing skills											2			2
			CO2	Demonstrate required knowledge over Dos and Don'ts of speaking in the corporate context. Demonstrate ability to face formal situations / interactions.										2				2
				Understand the varieties of reading and comprehend the tone and style of the author. Skim										2				2



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
				and scan effectively and appreciate rhetorical devices														
			CO4	Apply the concepts of writing to draft corporate letters, emails, and memos											2			2
68	22UC1202	English Proficiency	CO1	Apply the concepts of accurate English while writing and become equally at ease in using good vocabulary and language skills.									2	2	2			2
			CO2	Understand the importance of professional writing and apply the same in day-to-day usage.								2	2	2				2
			CO3	Apply the concepts of Ratios, Percentages, Averages and Analyzing the given information, a student is required to understand the given information and there after answer the given questions on the basis of comparative analysis of the data in the form of tabulation, bar graphs, pie charts, line graphs. Analyze the given data to find whether it is sufficient or not.	1			1										1
			CO4	Apply the basic functionality of Clocks and Calendars to find the solutions for the problems. Analyze the given symbols to understand the hidden meaning of the given expression and finding the solutions. Analyze the given conditions and	1				5									5



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
				finding out all the possible arrangements in linear & circular order.														
69	22UC1203	Design Thinking and Innovation	CO1	Understand the importance of Design thinking process for contextualized problems						1	1							
			CO2	Analyze, define, and ideate for solutions						2	2							
			CO3	Develop and test the prototype made						2	2							
			CO4	Explore the fundamentals of entrepreneurship skills for transforming the challenge into an opportunity						2	2							
70	22MB52C3	Human Resource Management	CO1	Integrated perspective on role of HRM in modern business. Ability to plan human resources and implement techniques of job design					1					2				
			CO2	Competency to recruit, train, and appraise the performance of employees					2					2				
			(())	Rational design of compensation and salary administration					2					2				
			CO4	Ability to handle employee issues and evaluate the new trends in HRM					2					2				
71		Innovation and Entrepreneurship		Explain and apply the key terms, definitions, and concepts used in the study of Innovation and Entrepreneurship Development					1					2				



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	Code		NO		1	2	3	4	5	6	7	8	9	10	11	12	1	2
			CO2	Demonstrate how as an entrepreneur he can use the concepts of Innovation, to create new product, services, and business processes					2					2				
			CO3	Construct a well-structured business plan by including all the necessary elements of the business plan					2					2				
			CO4	Demonstrate how as an entrepreneur he can use the concepts of Entrepreneurship, to develop a new entrepreneurial organization					2					2				