

Course Outcomes (COs)

Department of Bachelor Architecture

Programme Name: B.Arch

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2021 Scheme(UG)

Course Outcomes of Architecture

First -Year Courses

Course Name	ARCHITECTURAL DESIGN-I
Course Code	21ARC11
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC11.1	Get an introduction into the field of Architectural Design, the duality & the tension that exists between the form and function of a space.
21ARC11.2	Make responsible choices for design development
21ARC11.3	Get a perspective on design of spaces in formal and informal settlements.
21ARC11.4	Understand and appreciate various elements of Architecture such as Doors, Windows, Balconies, Verandas, etc. and document them

Course Name	MATERIALS & METHODS IN BUILDING CONSTRUCTION-I
Course Code	21ARC12
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC12.1	Understand the properties and uses of various materials and methods used in building
21ARC12.2	Understand brick bonding, foundation details, external wall section with flat roof and parapet
21ARC12.3	Design and detail various basic components used in a typical building construction, such as Doors, Windows, Ventilators etc.
21ARC12.4	Design and draw various details used in a typical construction of a low rise building

Course Name	ARCHITECTURAL GRAPHICS-I
Course Code	21ARC13
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC13.1	Work on drawing methods both in freehand and with instruments.
21ARC13.2	Translate the graphical ideas into technically appropriate drawing presentations
21ARC13.3	Project orthographically architectural elements and built forms.
21ARC13.4	Project architectural elements and built forms in 3 dimensional isometric and axanometric views

Course Name	HISTORY OF ARCHITECTURE-I
Course Code	21ARC14
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC14.1	The students will be able to appreciate geographical, geological, social, cultural and political factors that influenced the early society and its architecture.
21ARC14.2	They will also understand the use of materials and structural/construction systems explore during that era.
21ARC14.3	The students will also understand and focus on local architecture context in addition to understanding the global history of architecture.
21ARC14.4	Sketch out while learning about the various buildings of each era

Course Name	BASIC DESIGN & VISUAL ARTS
Course Code	21ARC15
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC15.1	Develop a critical orientation to design thinking and action
21ARC15.2	Appreciate and recognize various art forms
21ARC15.3	Explore and experiment with patterns and materials
21ARC15.4	Gain insights into regional and cultural art and craft

Course Name	MODEL MAKING WORKSHOP
Course Code	21ARC16
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC16.1	Understand the properties and characteristics of these materials and their suitability for different types of models.
21ARC16.2	Generate and manipulate different forms and shapes, including basic geometric forms (cube, cone, dome, arch) and organic forms. They will learn how to create and combine various shapes to produce composite forms, experimenting with rods, pipes, slabs, and other elements.
21ARC16.3	Construct architectural models, including windows, walls, doors, roofs, trees, shrubs, roads, and vehicles. Additionally, they will learn to create free forms, such as tensile structures and funicular shells, using different materials like wood, fabric, and plastic.
21ARC16.4	Use new technologies to enhance their model-making capabilities and explore new possibilities in design.

Course Name	INNOVATION AND DESIGN THINKING
Course Code	21IDT19
Course outcomes (COs): At the end of the course the student will be able to:	
21IDT19.1	Appreciate various design process procedure
21IDT19.2	Generate and develop design idea through different technique
21IDT19.3	Identify the significance of reverse Engineering to Understand products
21IDT19.4	Draw technical drawing for design ideas

Course Name	COMMUNICATIVE ENGLISH
Course Code	21HUM18
Course outcomes (COs): At the end of the course the student will be able to:	
21HUM18.1	Understand and apply the Fundamentals of Communication Skills in their communication skills.
21HUM18.2	Identify the nuances of phonetics, intonation and enhance pronunciation skills.
21HUM18.3	Impart basic English grammar and essentials of language skills as per present requirement.
21HUM18.4	Understand and use all types of English vocabulary and language proficiency.

Course Name	ARCHITECTURAL DESIGN- II
Course Code	21ARC21
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC21.1	Equipped to understand the requirements of a multifunctional programs with respect to aspects of locating the design program on site viz a vie light, movement, etc.
21ARC21.2	Equipped to understand how to start a settlement study.
21ARC21.3	Create a simple design in which form is distinct from structure and create a simple design in which form is integral with structure.
21ARC21.4	Develop the ability to translate abstract principles of design into architectural solutions for simple problems.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION-II
Course Code	21ARC22
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC22.1	Understand different roofing systems, including timber roofs (lean-to, collared, king post, queen post), steel truss roofs, and concrete roofs.
21ARC22.2	Analyze and compare the construction methods and joinery details involved in each type of roof, considering factors such as span, load-bearing capacity, and architectural design.
21ARC22.3	Understand the types, applications, and properties of these materials, including testing procedures in both laboratory and field settings. They will also explore the uses and application of these materials in building construction and special applications.
21ARC22.4	Learn about the construction methods and joinery involved in timber stairs (single and double stringer), RCC stairs (waist slab, folded plate, stringer beam, precast), steel stairs (stringer, folded type, spiral, fire escape), and composite stairs (brick/stone, steel/timber, concrete/wood, steel/glass).

Course Name	ARCHITECTURAL GRAPHICS-II
Course Code	21ARC23
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC23.1	Use 3D techniques in architectural presentations
21ARC23.2	Make architectural presentation using rendering and sciographic techniques
21ARC23.3	Project graphically any complex geometric solids and architectural compositions with combination of different forms
21ARC23.4	Draw Free-hand perspective drawings of architectural elements, built forms with rendering techniques showing light, shade and shadow on built forms.

Course Name	HISTORY OF ARCHITECTURE-II
Course Code	21ARC24
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC24.1	Develop appropriate skills of reading, writing and understanding the physical and aesthetic experience of buildings.
21ARC24.2	Understand the use of materials and structural/construction systems explore during that era.
21ARC24.3	Understand the evolution of Hindu Architecture in India in its various stylistic modes, characterized by technology, ornamentation and planning practices.
21ARC24.4	Sketch out while learning about the various buildings of each era

Course Name	BASIC DESIGN & THEORY OF DESIGN
Course Code	21ARC25
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC25.1	Think creatively and critically when approaching design challenges and tasks
21ARC25.2	Grasp the fundamental principles of aesthetics and architectural composition, including concepts such as contrast, harmony, accentuation, restraint, repose, vitality, and strength
21ARC25.3	Understanding of various art forms, including fine arts, performing arts, commercial arts, industrial arts, folk arts, abstract art, visual arts, spatial arts, temporal arts, and pop art
21ARC25.4	Analyze and represent natural patterns and abstractions using various visual media.

Course Name	BUILDING STRUCTURE -I
Course Code	21ENG26
Course outcomes (COs): At the end of the course the student will be able to:	
21ENG26.1	Understand Different construction materials with emphasis on structural properties
21ENG26.2	Understand the mechanics of forces acting on rigid bodies
21ENG26.3	Analyse the support reactions on beam
21ENG26.4	Analyse the forces on truss using method of joints

Course Name	SITE SURVEYING AND ANALYSIS
Course Code	21ENG27
Course outcomes (COs): At the end of the course the student will be able to:	
21ENG27.1	Understand the classifications and its basic principles of surveying.
21ENG27.2	Learn the measurement of horizontal distances by chaining/taping and concepts of chain surveying.
21ENG27.3	Employ conventional surveying data capturing techniques and process the data for computations.
21ENG27.4	Analyze the obtained spatial data for draw contours and preparation of maps.

Course Name	PROFESSIONAL WRITING SKILLS IN ENGLISH
Course Code	21EGH28
Course outcomes (COs): At the end of the course the student will be able to:	
21EGH28.1	To understand and identify the Common Errors in Writing and Speaking.
21EGH28.2	To Achieve better Technical writing and Presentation skills.
21EGH28.3	To read Technical proposals properly and make them to Write good technical reports.
21EGH28.4	Acquire Employment and Workplace communication skills.

Course Name	SCIENTIFIC FOUNDATIONS OF HEALTH
Course Code	21SFH29
Course outcomes (COs): At the end of the course the student will be able to:	
21SFH29.1	To understand Health and wellness (and its Beliefs)
21SFH29.2	To acquire Good Health & It's balance for positive mindset
21SFH29.3	To inculcate and develop the healthy lifestyle habits for good health.
21SFH29.4	To Create of Healthy and caring relationships to meet the requirements of MNC and LPG world

Second-Year Courses

Course Name	ARCHITECTURAL DESIGN -III
Course Code	21ARC31
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC31.1	Understand how architectural spaces are transformed into places through the process of defining characteristics, imbuing them with values, meaning, and memories.
21ARC31.2	Analyze the human spatial experience in various places, both indoors and outdoors, permanent and temporary, private and public.
21ARC31.3	Represent through various media, such as sketches, models, drawings, photographs, collages, and short films.
21ARC31.4	Translate their observations and ideas into architectural drawings and other supporting methods.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION -III
Course Code	21ARC32
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC32.1	Learn the principles and methods of construction for each type of slab, including considerations for one-way continuous and two-way continuous slabs.
21ARC32.2	Acquire knowledge about the principles and methods of construction for masonry vaults and domes, as well as reinforced concrete domes and vaults.
21ARC32.3	Familiarize with various floor finishes, including mud flooring, stone flooring, mosaic, terrazzo, ceramic tiles, wooden flooring, and polished concrete.
21ARC32.4	interpret structural drawings and checking structural works on-site, making them well-prepared to participate in construction projects with expertise and confidence.

Course Name	CLIMATOLOGY
Course Code	21ARC33
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC33.1	Understand the elements of weather and climate, phenomena of heat flow, thermal comfort, solar shading and day lighting in an applicative manner
21ARC33.2	Analyse and interpret the relationships between atmospheric processes and regional-local climates.
21ARC33.3	Use climatology and its understanding of thermal comfort indices to assist them in climate-responsive building design.
21ARC33.4	Develop the understanding of how construction activities influence and impact the micro-macro climate.

Course Name	HISTORY OF ARCHITECTURE -III
Course Code	21ARC34
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC34.1	Learn and compare various styles of Architecture in Islamic and Colonial period in India
21ARC34.2	Appreciate the culture and monumental scale and proportion of buildings.
21ARC34.3	Understand of their evolution in various stylistic modes, characterized by technology, ornamentation, and planning practices.
21ARC34.4	Analyse spaces, functions, and forms of various buildings of Islamic and Colonial period in India

Course Name	BUILDING SERVICES -I
Course Code	21ARC35
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC35.1	Understand the importance of the services of water supply, sanitary and other necessities in a building.
21ARC35.2	Analyse the space requirements and other technical aspects of various services in a building
21ARC35.3	Apply the knowledge of space requirements and other technical aspects in design
21ARC35.4	Evaluate the knowledge of services of water supply, sanitary and other necessities in building

Course Name	BUILDING STRUCTURE -II
Course Code	21ARC36
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC36.1	Understand the basic concepts of the stresses and strains for different materials and strength of structural elements.
21ARC36.2	Know the development of internal forces and resistance mechanism for one dimensional and two dimensional structural elements.
21ARC36.3	Analyse and understand different internal forces and stresses induced due to representative loads on structural elements.
21ARC36.4	Understand variation of SFD and BMD

Course Name	SAMSKRUTIKA KANNADA
Course Code	21KSK37
Course outcomes (COs): At the end of the course the student will be able to:	
21KSK37.1	To understand the necessity of learning of local language for comfortable life.
21KSK37.2	To Listen and understand the Kannada language properly.
21KSK37.3	To speak, read and write Kannada language as per requirement.
21KSK37.4	To communicate (converse) in Kannada language in their daily life with kannada speakers.

Course Name	BALAKE KANNADA
Course Code	21KBK37
Course outcomes (COs): At the end of the course the student will be able to:	
21KBK37.1	To understand the necessity of learning of local language for comfortable life.
21KBK37.2	To Listen and understand the Kannada language properly.
21KBK37.3	To communicate (converse) in Kannada language in their daily life with kannada speakers.
21KBK37.4	To speak in polite conversation.

Course Name	ARCHITECTURAL PHOTOGRAPHY
Course Code	21ARC381
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC381.1	Impart the skills of taking aesthetically appealing
21ARC381.2	Creative architectural photographs through the use of appropriate cameras/ lenses and lighting conditions.
21ARC381.3	Optimizing selection of shutter speed, aperture and ISO.
21ARC381.4	Enhance depth of fields.

Course Name	VERNACULAR ARCHITECTURE
Course Code	21ARC382
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC382.1	Inculcate an appreciation of vernacular architecture; as an expression of local identity and indigenous traditions of the culture.
21ARC382.2	Observe, record, document and represent vernacular architecture
21ARC382.3	Design an informal settlement using vernacular elements.
21ARC382.4	Map old vernacular materials and apply for informal settlements

Course Name	VISUAL COMMUNICATION
Course Code	21ARC383
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC383.1	Understand meaning generation process in visual language.
21ARC383.2	Understand the differences between logo and symbol
21ARC383.3	Relate between text and images and their interrelationships.
21ARC383.4	Understand Cultural context of meaning generation and aesthetic principles.

Course Name	SOCIAL CONNECT & RESPONSIBILITY
Course Code	21UH39
Course outcomes (COs): At the end of the course the student will be able to:	
21UH39.1	Critically analyze various social issues and challenges prevalent in their communities or on a global scale
21UH39.2	Engage in Responsible Social Initiatives
21UH39.3	Develop the ability to collaborate with local organizations and stakeholders to address social issues effectively, demonstrating ethical decision-making and responsible leadership.
21UH39.4	analyze the impact of various decisions and practices on marginalized and vulnerable populations, emphasizing the need for ethical and socially responsible behavior in personal and professional settings.

Course Name	ARCHITECTURAL DESIGN -IV
Course Code	21ARC41
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC41.1	Get an introduction into the field of Architectural Design viz. a viz. the duality & the tension that exists between the form and function of a space.
21ARC41.2	Make responsible choices for design development
21ARC41.3	Get a perspective on design of spaces in formal and informal settlements.
21ARC41.4	Explore issues of community, public and private realms, edge conditions, communication and connectedness.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION -IV
Course Code	21ARC42
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC42.1	Understand the critical aspects of structural systems in RCC.
21ARC42.2	Relate architectural drawings to structural consultant's drawings.
21ARC42.3	Appreciate and use of other materials like steel, Aluminium for buildings.
21ARC42.4	Learn about the construction practices pertaining to RCC framing systems, and other building elements such as metal doors and windows(In Steel and Aluminium)

Course Name	HISTORY OF ARCHITECTURE -IV
Course Code	21ARC43
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC43.1	Develop appropriate skills of reading, writing and understanding the physical and aesthetic experience of buildings.
21ARC43.2	Understand the use of materials and structural/construction systems explored during that era.
21ARC43.3	Understand the evolution of Greek, Roman, Byzantine, Medieval and Gothic architecture in its various stylistic modes, characterized by technology, ornamentation and planning practices.
21ARC43.4	Sketch out while learning about the various buildings of each era

Course Name	BUILDING SERVICES -II
Course Code	21ARC44
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC44.1	Learn the importance of electrical services in a building.
21ARC44.2	Appreciate the importance of electrical services in buildings.
21ARC44.3	Do the service drawings and coordinate with electrical consultant's services in buildings.
21ARC44.4	Learn about green building councils of India and codes (BEE, GRIHA, IGBC), energy consumption and carbon emissions of different electrical equipment, technologies and lighting etc.

Course Name	BUILDING STRUCTURES - III
Course Code	21ARC45
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC45.1	Learn the importance of R C C in a building
21ARC45.2	Analyse the forces acting in structural system in buildings.
21ARC45.3	Understand the IS Codes and expect the structural drawings for buildings are complied with the codes.
21ARC45.4	Understand the fundamental principles and structural behaviour of concrete buildings in withstanding gravity, lateral (seismic and wind), and other environmental forces.

Course Name	CONSTITUTION OF INDIA & PROFESSIONAL ETHICS
Course Code	21CIP46
Course outcomes (COs): At the end of the course the student will be able to:	
21CIP46.1	Have constitutional knowledge and legal literacy.
21CIP46.2	Understand the profession and Professional ethics and responsibilities of an Architect/Engineer / Management person.
21CIP46.3	Know the fundamental political structure & codes, procedures, powers, and duties of Indian government institutions, fundamental rights, directive principles, and the duties of citizens.
21CIP46.4	Understand engineering ethics and their responsibilities, identify their individual roles and ethical responsibilities towards society.

Course Name	COMPUTER APPLICATION IN ARCHITECTURE -I
Course Code	21ARC47
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC47.1	Use computers and digital media as tools to explore, develop, evaluate and present architectural ideas.
21ARC47.2	Estimate energy conservation and climate impact mitigation of their design projects through integration of passive design features such as insulation, shading, thermal mass, appropriate window-wall-ratios etc.
21ARC47.3	Make a project of previous semester Architectural Design in to a computer aided drawings 2D & 3D with rendering and photo editing.
21ARC47.4	Apply the learnings for their academic projects in higher classes

Course Name	ENVIRONMENT RESPONSIVE ARCHITECTURE
Course Code	21ARC481
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC481.1	Understand Concept and necessity of Green buildings
21ARC481.2	Understand Green Building Rating System: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Innovation in Design and Regional Priority
21ARC481.3	Understand passive techniques of cooling such as evaporative cooling, earth tubing, wind scoops, roof ponds, shaded courtyards etc.
21ARC481.4	Provide incentive for project teams to address geographically significant environmental local issues.

Course Name	PRODUCT DESIGN
Course Code	21ARC482
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC482.1	Define product design as both a noun and a verb, grasping the essence of integrating form, function, aesthetics, and emotional appeal in product development.
21ARC482.2	Engage in the entire product design process, from idea generation to commercialization, including concept development, detailing, and material selection.
21ARC482.3	Appreciate the interconnectedness of product design with other fields, such as technology, ergonomics, culture, and marketing.
21ARC482.4	Apply their knowledge to real-world scenarios, such as designing multipurpose products or spatial solutions for informal household dwellers in informal settlements, taking into account materials, manufacturing processes, and market considerations.

Course Name	HERITAGE DOCUMENTATION
Course Code	21ARC483
Course outcomes (COs): At the end of the course the student will be able to:	
21ARC483.1	Understand the character of a settlement
21ARC483.2	Understand the character of a street, building,
21ARC483.3	Understand the character of a spaces
21ARC483.4	Materials through a process of measured drawings and photographic documentation.

2018 Scheme(UG)

Course Outcomes of Architecture

First-Year Courses

Course Name	ARCHITECTURAL DESIGN-I
Course Code	18ARC11
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC11.1	Get an introduction into the field of Architectural Design, the duality & the tension that exists between the form and function of a space.
18ARC11.2	Make responsible choices for design development
18ARC11.3	Get a perspective on design of spaces in formal and informal settlements.
18ARC11.4	Understand and appreciate various elements of Architecture such as Doors, Windows, Balconies, Verandas, etc and document them

Course Name	MATERIALS & METHODS IN BUILDING CONSTRUCTION-I
Course Code	18ARC12
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC12.1	Understand the properties and uses of various materials and methods used in building
18ARC12.2	Understand brick bonding, foundation details, external wall section with flat roof and parapet
18ARC12.3	Design and detail various basic components used in a typical building construction, such as Doors, Windows, Ventilators etc
18ARC12.4	Design and draw various details used in a typical construction of a low rise building

Course Name	ARCHITECTURAL GRAPHICS-I
Course Code	18ARC13
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC13.1	Work on drawing methods both in freehand and with instruments.
18ARC13.2	Translate the graphical ideas into technically appropriate drawing presentations
18ARC13.3	Project orthographically architectural elements and built forms.
18ARC13.4	Project architectural elements and built forms in 3 dimensional isometric and axanometric views

Course Name	HISTORY OF ARCHITECTURE-I
Course Code	18ARC14
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC14.1	The students will be able to appreciate geographical, geological, social, cultural and political factors that influenced the early society and its architecture.
18ARC14.2	They will also understand the use of materials and structural/construction systems explore during that era.
18ARC14.3	The students will also understand and focus on local architecture context in addition to understanding the global history of architecture.
18ARC14.4	Sketch out while learning about the various buildings of each era

Course Name	BUILDING STRUCTURE -I
Course Code	18ENG15
Course outcomes (COs): At the end of the course the student will be able to:	
18ENG15.1	Understand Different construction materials with emphasis on structural properties
18ENG15.2	Understand the mechanics of forces acting on rigid bodies
18ENG15.3	Analyse the support reactions on beam
18ENG15.4	Analyse the forces on truss using method of joints

Course Name	BASIC DESIGN & VISUAL ARTS
Course Code	18ART16
Course outcomes (COs): At the end of the course the student will be able to:	
18ART16.1	Develop a critical orientation to design thinking and action
18ART16.2	Appreciate and recognize various art forms
18ART16.3	Explore and experiment with patterns and materials
18ART16.4	Gain insights into regional and cultural art and craft

Course Name	MODEL MAKING WORKSHOP
Course Code	18ARC17
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18ARC17.1	Understand the properties and characteristics of these materials and their suitability for different types of models.
18ARC17.2	Generate and manipulate different forms and shapes, including basic geometric forms (cube, cone, dome, arch) and organic forms. They will learn how to create and combine various shapes to produce composite forms, experimenting with rods, pipes, slabs, and other elements.
18ARC17.3	Construct architectural models, including windows, walls, doors, roofs, trees, shrubs, roads, and vehicles. Additionally, they will learn to create free forms, such as tensile structures and funicular shells, using different materials like wood, fabric, and plastic.
18ARC17.4	Use new technologies to enhance their model-making capabilities and explore new possibilities in design.

Course Name	COMMUNICATIVE ENGLISH
Course Code	18HUM18
Course outcomes (COs): At the end of the course the student will be able to:	
18HUM18.1	Understand and apply the Fundamentals of Communication Skills in their communication skills.
18HUM18.2	Identify the nuances of phonetics, intonation and enhance pronunciation skills.
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Course Name	ARCHITECTURAL DESIGN- II
Course Code	18ARC21
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC21.1	Equipped to understand the requirements of a multifunctional programs with respect to aspects of locating the design program on site viz a vie light, movement, etc.
18ARC21.2	Equipped to understand how to start a settlement study.
18ARC21.3	Create a simple design in which form is distinct from structure and create a simple design in which form is integral with structure.
18ARC21.4	Develop the ability to translate abstract principles of design into architectural solutions for simple problems.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION-II
Course Code	18ARC22
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18ARC22.1	Understand different roofing systems, including timber roofs (lean-to, collared, king post, queen post), steel truss roofs, and concrete roofs.
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18ARC22.3	Understand the types, applications, and properties of these materials, including testing procedures in both laboratory and field settings. They will also explore the uses and application of these materials in building construction and special applications.
18ARC22.4	Learn about the construction methods and joinery involved in timber stairs (single and double stringer), RCC stairs (waist slab, folded plate, stringer beam, precast), steel stairs (stringer, folded type, spiral, fire escape), and composite stairs (brick/stone, steel/timber, concrete/wood, steel/glass).

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18ART26.4	Analyze and represent natural patterns and abstractions using various visual media.

Course Name	SITE SURVEYING AND ANALYSIS
Course Code	18ENG27
Course outcomes (COs): At the end of the course the student will be able to:	
18ENG27.1	Understand the classifications and its basic principles of surveying.
18ENG27.2	Learn the measurement of horizontal distances by chaining/taping and concepts of chain surveying.
18ENG27.3	Employ conventional surveying data capturing techniques and process the data for computations.
18ENG27.4	Analyze the obtained spatial data for draw contours and preparation of maps.

Second-Year Courses

Course Name	ARCHITECTURAL DESIGN -III
Course Code	18ARC31
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC31.1	Understand how architectural spaces are transformed into places through the process of defining characteristics, imbuing them with values, meaning, and memories.
18ARC31.2	Analyze the human spatial experience in various places, both indoors and outdoors, permanent and temporary, private and public.
18ARC31.3	Represent through various media, such as sketches, models, drawings, photographs, collages, and short films.
18ARC31.4	Translate their observations and ideas into architectural drawings and other supporting methods.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION -III
Course Code	18ARC32
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC32.1	Learn the principles and methods of construction for each type of slab, including considerations for one-way continuous and two-way continuous slabs.
18ARC32.2	Acquire knowledge about the principles and methods of construction for masonry vaults and domes, as well as reinforced concrete domes and vaults.
18ARC32.3	Familiarize with various floor finishes, including mud flooring, stone flooring, mosaic, terrazzo, ceramic tiles, wooden flooring, and polished concrete.
18ARC32.4	interpret structural drawings and checking structural works on-site, making them well-prepared to participate in construction projects with expertise and confidence.

Course Name	CLIMATOLOGY
Course Code	18ARC33
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC33.1	Understand the elements of weather and climate, phenomena of heat flow, thermal comfort, solar shading and day lighting in an applicative manner
18ARC33.2	Analyse and interpret the relationships between atmospheric processes and regional-local climates.
18ARC33.3	Use climatology and its understanding of thermal comfort indices to assist them in climate-responsive building design.
18ARC33.4	Develop the understanding of how construction activities influence and impact the micro-macro climate.

Course Name	HISTORY OF ARCHITECTURE -III
Course Code	18ARC34
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC34.1	Develop appropriate skills of reading, writing and understanding the physical and aesthetic experience of buildings.
18ARC34.2	Understand the use of materials and structural/construction systems explore during that era.
18ARC34.3	Understand the evolution of Renaissance, Baroque, Neo Classical and Modern periods in its various stylistic modes, characterized by technology, ornamentation and planning practices.
18ARC34.4	Sketch out while learning about the various buildings of each era

Course Name	BUILDING STRUCTURES - III
Course Code	18ENG35
Course outcomes (COs): At the end of the course the student will be able to:	
18ENG35.1	Learn the importance of R C C in a building
18ENG35.2	Analyse the forces acting in structural system in buildings.
18ENG35.3	Understand the IS Codes and expect the structural drawings for buildings are complied with the codes.
18ENG35.4	Understand the fundamental principles and structural behaviour of concrete buildings in withstanding gravity, lateral (seismic and wind), and other environmental forces.

Course Name	THEORY OF ARCHITECTURE-I
Course Code	18ARC36
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC36.1	Remember: Key concepts and terms related to the theory of architecture.
18ARC36.2	Understand: The relationships between different concepts and terms.
18ARC36.3	Apply: The principles of aesthetics and architectural composition to the design of buildings.
18ARC36.4	Analyse: The different styles and movements in architecture.

Course Name	COMPUTER APPLICATION IN ARCHITECTURE -I
Course Code	18ARC37
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC37.1	Use computers and digital media as tools to explore, develop, evaluate and present architectural ideas.
18ARC37.2	Estimate energy conservation and climate impact mitigation of their design projects through integration of passive design features such as insulation, shading, thermal mass, appropriate window-wall-ratios etc.
18ARC37.3	Make a project of previous semester Architectural Design in to a computer aided drawings 2D & 3D with rendering and photo editing.
18ARC37.4	Apply the learnings for their academic projects in higher classes

Course Name	ARCHITECTURAL PHOTOGRAPHY
Course Code	18ARC381
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC381.1	Impart the skills of taking aesthetically appealing
18ARC381.2	Creative architectural photographs through the use of appropriate cameras/ lenses and lighting conditions.
18ARC381.3	Optimizing selection of shutter speed, aperture and ISO.
18ARC381.4	Enhance depth of fields.

Course Name	VERNACULAR ARCHITECTURE
Course Code	18ARC382
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC382.1	Inculcate an appreciation of vernacular architecture; as an expression of local identity and indigenous traditions of the culture.
18ARC382.2	Observe, record, document and represent vernacular architecture
18ARC382.3	Design an informal settlement using vernacular elements.
18ARC382.4	Map old vernacular materials and apply for informal settlements

Course Name	VISUAL COMMUNICATION
Course Code	18ARC383
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC383.1	Understand meaning generation process in visual language.
18ARC383.2	Understand the differences between logo and symbol
18ARC383.3	Relate between text and images and their interrelationships.
18ARC383.4	Understand Cultural context of meaning generation and aesthetic principles.

Course Name	ARCHITECTURAL DESIGN -IV
Course Code	18ARC41
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC41.1	Get an introduction into the field of Architectural Design viz. a viz. the duality & the tension that exists between the form and function of a space.
18ARC41.2	Make responsible choices for design development
18ARC41.3	Get a perspective on design of spaces in formal and informal settlements.
18ARC41.4	Explore issues of community, public and private realms, edge conditions, communication and connectedness.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION -IV
Course Code	18ARC42
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC42.1	Understand the critical aspects of structural systems in RCC.
18ARC42.2	Relate architectural drawings to structural consultant's drawings.
18ARC42.3	Appreciate and use of other materials like steel, Aluminium for buildings.
18ARC42.4	Learn about the construction practices pertaining to RCC framing systems, and other building elements such as metal doors and windows(In Steel and Aluminium)

Course Name	BUILDING SERVICES -I
Course Code	18ARC43
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC43.1	Understand the importance of the services of water supply, sanitary and other necessities in a building.
18ARC43.2	Analyse the space requirements and other technical aspects of various services in a building
18ARC43.3	Apply the knowledge of space requirements and other technical aspects in design
18ARC43.4	Evaluate the knowledge of services of water supply, sanitary and other necessities in building

Course Name	HISTORY OF ARCHITECTURE -IV
Course Code	18ARC44
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC44.1	Develop appropriate skills of reading, writing and understanding the physical and aesthetic experience of buildings.
18ARC44.2	Understand the use of materials and structural/construction systems explore during that era.
18ARC44.3	Understand the evolution of Hindu Architecture in India in its various stylistic modes, characterized by technology, ornamentation and planning practices.
18ARC44.4	Sketch out while learning about the various buildings of each era

Course Name	BUILDING STRUCTURES - IV
Course Code	18ARC45
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC45.1	Gain understanding of Steel Structural Systems including composite construction and fundamental principles and structural behavior of steel buildings in withstanding gravity, lateral (seismic and wind), and other environmental forces.
18ARC45.2	Understand the process of the design of structural steel systems and the design of simple steel structures.
18ARC45.3	Analyze and design composite steel decking with concrete topping for mezzanine floors, considering loading and structural analysis.
18ARC45.4	Design structures that satisfy building codes and standards.

Course Name	THEORY OF ARCHITECTURE-II
Course Code	18ARC46
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC46.1	Attain Knowledge in the process of architectural design
18ARC46.2	Comprehend the relationship between the different stages of the design process
18ARC46.3	Apply the principles of sustainable architecture in the design of buildings
18ARC46.4	Analyse the impact of culture on architectural design

Course Name	COMPUTER APPLICATION IN ARCHITECTURE -I
Course Code	18ARC47
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC47.1	Adept at using graphics, vector, and image editing software to present their architecture design studio projects.
18ARC47.2	Learn to use publishing tools to create professional presentations and portfolios.
18ARC47.3	Learn the process of converting these 3D models into 2D drawings, enhancing their ability to transition between 3D modeling software and 2D drafting tools.
18ARC47.4	Apply materials, create animations, and produce photo-realistic renderings, enhancing their ability to present their design concepts effectively.

Course Name	ENVIRONMENT RESPONSIVE ARCHITECTURE
Course Code	18ARC481
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC481.1	Understand Concept and necessity of Green buildings
18ARC481.2	Understand Green Building Rating System: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Innovation in Design and Regional Priority
18ARC481.3	Understand passive techniques of cooling such as evaporative cooling, earth tubing, wind scoops, roof ponds, shaded courtyards etc.
18ARC481.4	Provide incentive for project teams to address geographically significant environmental local issues.

Course Name	PRODUCT DESIGN
Course Code	18ARC482
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC482.1	Define product design as both a noun and a verb, grasping the essence of integrating form, function, aesthetics, and emotional appeal in product development.
18ARC482.2	Engage in the entire product design process, from idea generation to commercialization, including concept development, detailing, and material selection.
18ARC482.3	Appreciate the interconnectedness of product design with other fields, such as technology, ergonomics, culture, and marketing.
18ARC482.4	Apply their knowledge to real-world scenarios, such as designing multipurpose products or spatial solutions for informal household dwellers in informal settlements, taking into account materials, manufacturing processes, and market considerations.

Course Name	HERITAGE DOCUMENTATION
Course Code	18ARC483
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC483.1	Understand the character of a settlement
18ARC483.2	Understand the character of a street, building,
18ARC483.3	Understand the character of a spaces
18ARC483.4	Materials through a process of measured drawings and photographic documentation.

Third-Year Courses

Course Name	ARCHITECTURAL DESIGN- V
Course Code	18ARC51
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC51.1	Understand the need for creating architecture as an envelope to system dependent program.
18ARC51.2	Understand the use of technologies developed in other fields as a precursor to creating architecture.
18ARC51.3	Identify and understand the role of services in the design of buildings; significance of material and construction techniques; climatic factors.
18ARC51.4	Introduction to development Regulations (building byelaws and rules); circulation networks (people, vehicular access), site planning.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION-V
Course Code	18ARC52
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC52.1	Understand the principles, methods of construction, form-work techniques, and reinforcement details for each structure type.
18ARC52.2	Identify the principles and construction methods associated with each type of structure, and even explore these concepts through physical models
18ARC52.3	Learn the intricacies of detailing a pre-engineered building, including roof fixing details with aluminum sheet and profiled MS sheet cladding.
18ARC52.4	Effectively design and detail steel trusses for complex building systems

Course Name	BUILDING SERVICES-II
Course Code	18ARC53
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC53.1	Understand electrical services and their implications on architectural design.
18ARC53.2	Understand the fundamentals of solar, wind, and bio-mass energy, and learn how to achieve net-zero building designs by utilizing these natural resources
18ARC53.3	Understand how to integrate daylighting with artificial lighting, and they will be capable of creating lighting layouts for various applications, such as ambient, task, accent, street, façade, and landscape lighting.
18ARC53.4	Estimate electrical loads, taking into consideration various components such as lighting, transformers, and other equipment

Course Name	HISTORY OF ARCHITECTURE-V
Course Code	18ARC54
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC54.1	Develop appropriate skills of reading, writing and understanding the physical and aesthetic experience of buildings.
18ARC54.2	Understand the use of materials and structural/construction systems explode during that era.
18ARC54.3	Understand the evolution of Islamic and Colonial Architecture in India in its various stylistic modes, characterized by technology, ornamentation and planning practices.
18ARC54.4	Sketch out while learning about the various buildings of each era

Course Name	BUILDING STRUCTURES-V
Course Code	18ENG55
Course outcomes (COs): At the end of the course the student will be able to:	
18ENG55.1	Grasp the importance of selecting appropriate structural systems for specific architectural designs and will be able to analyze the impact of loads based on building codes and standards.
18ENG55.2	Determine and analyze various types of loads including gravity, seismic, and wind loads
18ENG55.3	Understand the unique properties, load paths, and structural weight calculations associated with each system.
18ENG55.4	Develop the skills necessary to select and design appropriate long span structural systems based on project requirements, ensuring the integration of architectural and structural elements. This outcome will enable students to confidently tackle complex design challenges.

Course Name	SOCIOLOGY AND BUILDING ECONOMICS
Course Code	18HUM56
Course outcomes (COs): At the end of the course the student will be able to:	
18HUM56.1	Analyze and evaluate architectural responses to different family types and cultures, both traditional and contemporary.
18HUM56.2	Understand the impact of urbanization on rural areas and the consequences of migration on urban form.
18HUM56.3	Grasp the relevance of economic factors like factors of production (land, labor, capital, entrepreneurship) to architecture and construction practice
18HUM56.4	Understand building costs, cost indices, life cycle costs, and various sources of financing buildings.

Course Name	WORKING DRAWING I
Course Code	18ARC57
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC57.1	Understand fundamental concepts of working drawings in architecture.
18ARC57.2	Master the drafting conventions essential for accurately representing architectural elements in working drawings.
18ARC57.3	Adept at utilizing plot styles and conducting error checks to produce accurate and high-quality drawings efficiently.
18ARC57.4	Independently prepare comprehensive architectural working drawings and details for a design project.

Course Name	ALTERNATIVE BUILDING MATERIAL AND TECHNOLOGY
Course Code	18ARC581
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC581.1	Identify and classify different types of building materials and techniques commonly used in construction.
18ARC581.2	Gain in-depth knowledge of various building materials such as soil, bamboo, stabilized mud blocks, hollow clay blocks, and cement blocks.
18ARC581.3	Construct walls using stabilized mud blocks, hollow clay blocks, and cement blocks, as well as mud walls and rammed earth walls.
18ARC581.4	Understand the concept of Ferro Cement structures and be able to identify building components made from Ferro Cement, such as roofs, walls, and staircases.

Course Name	DIGITAL ARCHITECTURE
Course Code	18ARC582
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC582.1	Learn about new design processes in architecture and approaches on utilisation of digital design tools.
18ARC582.2	Explore parametric software as a first stage of learning software for replicating ideas in to 2D & 3D.
18ARC582.3	Explore parametric/generative design methodologies through the application progression techniques.
18ARC582.4	Learn geometric iterations and transformations as an approach for form generation.

Course Name	ARCHITECTURAL LIGHTING DESIGN
Course Code	18ARC583
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC583.1	Differentiate between quantitative and qualitative aspects of lighting design and recognize how light can shape spatial experiences.
18ARC583.2	Understand how different aspects of lighting design contribute to creating specific atmospheres and moods within architectural spaces.
18ARC583.3	Learn how to develop effective lighting strategies that enhance architectural design, considering both functional and aesthetic aspects.
18ARC583.4	Develop practical skills in lighting design for architectural spaces using a perception-based approach

Course Name	ARCHITECTURAL DESIGN-VI
Course Code	18ARC61
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC61.1	Integrate design with history, theory, building construction and material science in a more informed way.
18ARC61.2	Explain the relationship between the different stages of the design process, the different ways in which culture and climate can impact architectural design, and the principles of sustainable architecture.
18ARC61.3	Apply the principles of sustainable architecture, the different types of architectural technology, and the different trends in contemporary architectural design in the design of buildings.
18ARC61.4	Analyze the effectiveness of different architectural designs in meeting the needs of their users and the impact of different architectural designs on the environment.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION-VI
Course Code	18ARC62
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC62.1	Grasp the fabrication techniques involved in working with glass and fiber-reinforced composite materials.
18ARC62.2	Develop the skills required to design and detail frameless glass doors, windows, and partitions
18ARC62.3	Expertise in structural glazing, point-supported glazing, and metal cladding systems.
18ARC62.4	Understand the principles and methods of constructing skylights using steel and glass, as well as alternative wall technologies such as sandwich panel walls and PUF panels.

Course Name	BUILDING SERVICES-III
Course Code	18ARC63
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC63.1	Understand the basic concepts and principles of building services engineering.
18ARC63.2	Explain the relationship between the different components of building services systems.
18ARC63.3	Apply the principles of building services engineering in the design of building services systems.
18ARC63.4	Analyze the effectiveness of different building services systems in meeting the needs of building users.

Course Name	CONTEMPORARY ARCHITECTURE
Course Code	18ARC64
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC64.1	To learn various styles of Modern Architecture
18ARC64.2	To compare various styles of Modern Architecture
18ARC64.3	To analyse various phases of Contemporary Architecture and pioneers.
18ARC64.4	To apply principles of design on various phases to present day scenarios

Course Name	BUILDING STRUCTURES-VI
Course Code	18ENG65
Course outcomes (COs): At the end of the course the student will be able to:	
18ENG65.1	Critically analyze case studies of high-rise buildings and identify key design considerations and challenges associated with tall structures.
18ENG65.2	Grasp the principles of designing gravity and lateral systems to withstand these external forces.
18ENG65.3	Understand the framing arrangements, sizing, and design of key structural elements like beams, columns, shear walls, and slabs.
18ENG65.4	Understand seismic design strategies including strength, stiffness, ductility, damping, and mass distribution

Course Name	LANDSCAPE ARCHITECTURE
Course Code	18ARC66
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC66.1	Respond architecture and landscapes and understand the relation between architecture and landscape
18ARC66.2	Learn and compare various styles of Landscape Architecture
18ARC66.3	Design small landscape architecture
18ARC66.4	Apply advance analytical and planning skills for Architectural project site

Course Name	WORKING DRAWING II
Course Code	18ARC67
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC67.1	Master the drafting conventions essential for accurately representing architectural elements in working drawings.
18ARC67.2	Adept at utilizing plot styles and conducting error checks to produce accurate and high-quality drawings efficiently.
18ARC67.3	Independently prepare comprehensive architectural working drawings and details for a design project.
18ARC67.4	Prepare Structural, Electrical, Water Supply and Sanitary drawings

Course Name	CULTURE AND BUILT ENVIRONMENT
Course Code	18ARC681
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC681.1	Recognize how cultural factors, including biosocial, psychological, and group characteristics, influence the design and characteristics of the built environment.
18ARC681.2	Understand how behavioral sciences have informed and continue to inform the design process, and they will appreciate the value of incorporating insights from psychology, sociology, and anthropology into architectural and urban design.
18ARC681.3	Analyze how cultural and contextual factors have influenced the design and evolution of architectural spaces in these regions, gaining a global perspective on cultural influences on the built environment.
18ARC681.4	Apply their cultural understanding to the design of architectural spaces.

Course Name	GEOGRAPHICAL INFORMATION SYSTEM
Course Code	18ARC682
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC682.1	Use coordinate reference systems to accurately represent geographic information.
18ARC682.2	Apply GIS techniques to architectural analysis and presentation.
18ARC682.3	Create digital elevation models (dems), calculate hillshade, slope, and aspect, and use scientific computing techniques to process raster datasets.
18ARC682.4	Publish 2D maps on the web, allowing for online access and interaction with geographic information.

Course Name	DESIGN OF HIGH RISE BUILDING
Course Code	18ARC683
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC683.1	Explain the historical development of skyscrapers and the key principles that guide their design.
18ARC683.2	Understand the engineering principles behind these systems and their application in ensuring the stability and safety of skyscrapers.
18ARC683.3	Understand the environmental implications of tall buildings, including their energy efficiency and sustainability considerations.
18ARC683.4	Acquire knowledge of the various services required in skyscrapers, such as utilities, climate control, and accessibility considerations

Course Name	STUDY TOUR
Course Code	18ARC69
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC69.1	Gain exposure to a diverse range of architectural styles and traditions through their study tours.
18ARC69.2	Learn how to critically assess architectural features, historical contexts, and the relationships between architecture and the environment.
18ARC69.3	Develop an enhanced appreciation for the diversity of architectural styles, materials, and techniques
18ARC69.4	Effectively communicate their architectural insights and observations

Fourth-Year Courses

Course Name	ARCHITECTURAL DESIGN- VII
Course Code	18ARC71
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC71.1	Understand the subject of Architecture as an integrated field which works in tandem with Technology, Design, Economy, Ecology, Geography and Sociology etc
18ARC71.2	Analyse architecture as a man-made ecosystem, which is self-contained and sustainable.
18ARC71.3	Apply and augment the right set of knowledge kit (from the learnt courses and electives) that will steer the approach to the design brief in a strong direction.
18ARC71.4	Understand the subject of Architecture as an integrated field which works in tandem with Technology, Design, Economy, Ecology, Geography and Sociology etc

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION-VII
Course Code	18ARC72
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC72.1	Understand various wood products used as building materials, including plywood, block board, particle board, laminates, MDF, HDF, and more.
18ARC72.2	Develop the skills necessary to design and construct modular interior elements, focusing on residential and office spaces.
18ARC72.3	Study and analyze a specific prefabrication example to gain insights into the practical application of these techniques.
18ARC72.4	Understand potential benefits of prefabrication and advanced construction methods.

Course Name	BUILDING SERVICES-IV
Course Code	18ARC73
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC73.1	Explore the role and capacity of sound in all its variations
18ARC73.2	Enhance aural experience in built environment- within and without..
18ARC73.3	Design acoustically designed and treated space.
18ARC73.4	Design of a multipurpose hall - rooms for speech and music for optimum acoustics – drawings and construction details of acoustical treatment

Course Name	SPECIFICATION, QUANTITY AND COSTING OF BUILDINGS
Course Code	18ENG74
Course outcomes (COs): At the end of the course the student will be able to:	
18ENG74.1	Understand how to incorporate local and national building codes into specifications and how these specifications impact the overall project quality, cost, and time management.
18ENG74.2	Develop expertise in preparing a comprehensive Bill of Quantities (BOQ)
18ENG74.3	Comprehend factors that influence variations in rates, such as government rates, market rates, and inflation.
18ENG74.4	Gain insight into the architect's role in monitoring specifications, quality control, measurement book maintenance, and certification processes.

Course Name	URBAN DESIGN
Course Code	18ARC75
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC75.1	Familiarise with various approaches to urban design, including behavioral, social-cultural, morphological, functional-temporal, and environmental approaches.
18ARC75.2	Understand how urban design theories have evolved and adapted to address contemporary urban challenges and changing societal needs.
18ARC75.3	Analyze and interpret urban spaces and forms through the lens of urban theorists.
18ARC75.4	Understand the relationship between human activity, the built environment, and environmental considerations in urban design

Course Name	INTERIOR DESIGN
Course Code	18ARC76
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC76.1	Understand fundamental principles of interior design, including the distinction between interior design and decoration.
18ARC76.2	Understand how historical design movements, vernacular influences, folk arts, and regional crafts have shaped contemporary interior design.
18ARC76.3	Adept at integrating interior spaces with essential services such as climatic comfort, lighting, plumbing, sanitation, and electrical systems.
18ARC76.4	Develop user-centric design solutions that encompass space planning, visualization, material specification, detailing, color selection, furniture design, and lighting design

Course Name	CRAFT IN ARCHITECTURE
Course Code	18ARC771
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC771.1	Appreciate finer nuances of making of Architecture into a reality.
18ARC771.2	Overview towards the wealth of traditional / existing practices.
18ARC771.3	Insight to potential direction of evolution of making of Architecture.
18ARC771.4	Develop ability to craft making of Architecture.

Course Name	ARCHITECTURAL WRITING AND JOURNALISM
Course Code	18ARC772
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC772.1	Learn about techniques and methods of expressing an architectural narrative or description through forms of creative writings
18ARC772.2	Learn techniques and methods of researching, analysing and critiquing, recording, authenticating and examining architecture through documentation, analytical and technical writings.
18ARC772.3	Learn roles of an architectural journalist as a reporter, reviewer, cartoonist, interviewer, feature writer and specialist writer
18ARC772.4	Learn topics relevant and needed in an architectural journals and current issues; Mass Media and Public Opinion.

Course Name	BIOMIMICRY
Course Code	18ARC773
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC773.1	Appreciate and understand cross disciplinary design practice of Biomimicry
18ARC773.2	Appreciate the importance of ‘reconnection/ connection’ with nature
18ARC773.3	Understand Life’s overarching Principles & how this can inform sustainable solutions
18ARC773.4	Understand and being able to ‘integrating biology in design’

Course Name	ARCHITECTURAL DESIGN- VIII
Course Code	18ARC81
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC81.1	Describe the key components, terms, actors, processes and aspects of urban environment and their inter-relationships; to explore specific themes/issues such as public spaces, physical infrastructure, socio-cultural aspects (heritage, gender, urban growth, informality, place identity, collective memory, walkability, livability, zoning regulations) and the role of architecture in shaping the urban fabric
18ARC81.2	Represent via mapping, diagramming and theoretical premise of different layers of urban fabric
18ARC81.3	Analyse methods/techniques to read, analyze and interpret the dynamics of urban environment.
18ARC81.4	Create/design architecture that responds to the specific demands of the urban context; understand the processes that impact architecture and the implications of design decisions on the larger context.

Course Name	MATERIALS AND METHODS IN BUILDING CONSTRUCTION-VIII
Course Code	18ARC82
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC82.1	Analyze the impact of these advancements on building construction, including considerations related to environmental concerns.
18ARC82.2	Understand the challenges associated with formwork in high-rise buildings and the materials used for efficient construction.
18ARC82.3	Identify and evaluate special and lightweight materials used in high-rise construction.
18ARC82.4	Understand the principles of green building and zero-energy building concepts

Course Name	THESIS SEMINAR
Course Code	18ARC83
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC83.1	Outline and articulate the broader focus and relevance of their chosen thesis topic in architecture.
18ARC83.2	Learn how to explore and articulate ideas through research and critically evaluate the feasibility of their proposal.
18ARC83.3	Pose relevant questions about architectural theory and design and conducting in-depth research to explore their chosen thesis topics.
18ARC83.4	Understand how to incorporate theoretical premises, tectonics, modes of representation, and other innovative approaches in their design research methods.

Course Name	PROFESSIONAL PRACTICE
Course Code	18ARC84
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC84.1	Differentiate between a profession, trade, and business and comprehend the ethical and legal obligations architects have towards their clients, projects, and society.
18ARC84.2	Grasp the significance of maintaining a professional attitude, upholding ethical conduct, and adhering to the code of professional conduct as outlined by regulatory bodies
18ARC84.3	Understand the administrative aspects of running different types of architectural firms and be familiar with basic accounting procedures necessary for efficient business operations.
18ARC84.4	Gain insights into the intricacies of tendering, tender notices, selection processes, and the architect's role in various stages of tender evaluation and contract management.

Course Name	CONSTRUCTION AND PROJECT MANAGEMENT
Course Code	18ENG85
Course outcomes (COs): At the end of the course the student will be able to:	
18ENG85.1	Understanding the concept of management and analyze the problems on Construction Planning and Scheduling
18ENG85.2	Apply the concept of resource management, productivity of labours and machineries and also understand the concept of material management
18ENG85.3	Explain the practice of construction quality process, construction safety and professional ethics
18ENG85.4	Understand role of decision making

Course Name	URBAN PLANNING
Course Code	18ARC86
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC86.1	Familiarize students with the origins and basic concepts of urban planning.
18ARC86.2	Understand Urban and Regional Development Plans
18ARC86.3	Formulation and Implementation Guidelines. Moud Government of India
18ARC86.4	Unerstanding the reality of urban planning through various planners

Course Name	CONSTITUTIONAL LAW
Course Code	18HUM87
Course outcomes (COs): At the end of the course the student will be able to:	
18HUM87.1	Have a clear grasp of Fundamental Rights, Fundamental Duties, and the limitations associated with these rights.
18HUM87.2	Develop a heightened awareness of civil liberties and their importance in a democratic society.
18HUM87.3	Well-verse in the structure and functioning of the Indian government.
18HUM87.4	Discuss liability, risks, and safety concerns in the workplace, showcasing a heightened consciousness of ethical and professional responsibilities.

Course Name	RESEARCH METHODS
Course Code	18ARC881
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC881.1	Develop an understanding of the role of research in architecture and increased abilities to interpret and evaluate research.
18ARC881.2	Learn components and methods of research in architecture.
18ARC881.3	Have an increased understanding of data, information, and knowledge.
18ARC881.4	Conduct architecture research and present research results.

Course Name	PRINCIPLES OF REAL ESTATE DEVELOPMENT
Course Code	18ARC882
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC882.1	Have a comprehensive understanding of the fundamentals of real estate
18ARC882.2	Become proficient in the concepts of transferring property title, including voluntary and involuntary transfers, types of deeds, and legal conveyance processes.
18ARC882.3	Learn about land use control, including public regulations, zoning laws, and the enforcement of these laws
18ARC882.4	Learn about the key role players in the real estate development industry and gain an understanding of the complexities of real estate development projects.

Course Name	ADAPTIVE REUSE OF BUILT FORM
Course Code	18ARC883
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC883.1	Have a solid understanding of the concept of adaptive re-use.
18ARC883.2	Develop proficiency in analyzing case studies of adaptive re-use projects, both within the country and abroad
18ARC883.3	Learn the process of analyzing existing structures, identifying design logic, and considering various parameters in concept generation.
18ARC883.4	Appreciate the various values associated with heritage structures, including architectural, cultural, historical, associational, and social values.

Fifth-Year Courses

Course Name	PROFESSIONAL TRAINING
Course Code	18ARC91
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC91.1	Experience professional work
18ARC91.2	Relate the academic work with professional work.
18ARC91.3	Appreciate the pace of the work in profession and learn to work as a team member
18ARC91.4	Experience field work.

Course Name	ARCHITECTURAL DESIGN PROJECT [THESIS]
Course Code	18ARC101
Course outcomes (COs): At the end of the course the student will be able to:	
18ARC101.1	Learn the preparation of a Project Report.
18ARC101.2	Apply his learning in the preparation of a Project Report.
18ARC101.3	Work with a team or individually on a given assignment/project.
18ARC101.4	Articulate and delineate the propositions of design into an architectural solution