SARDAR PATEL UNIVERSITY

VALLABH VIDYANAGAR-388121

DETAILED SYLLABUS FOR 5-YEAR BARHELOR OF ARCHITECTURE PROGRAM

Effective from Academic Year : 2017-18

B.Arch-I: SEMESTER I

AR 2101 DESIGN STUDIO - I (L=0, S=07, W=0) CREDITS = 05	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 07 **UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50**	
Focus :	Anthropometrics and Shelter.
Contents:	Anthropometrics : Human dimensions and proportions; Basic Shelter : Understanding of shelter as a resultant of various forces: culture climate, site & technology : exercises to provide exposure to various types of shelter. Analysis of various types
Projects:	Site visits to expose students to diversity of shelter & spaces. Exercises for analysis of various types/categories of space. Single-function small space design, with emphasis on above topics / issues (A number of design exercises must be done, relating to human scale and spatial requirements for different activities and functions)
Skills :	Sketching and model making for 3D visualization may be stressed. Single line orthographic drawings of designed spaces may be attempted for final project, using models to facilitate visualization.
AR 2102 ARCHITECTURAL GRAPHIC TECHNIQUES (AGT–I) (L=0,S=7,W=0) CREDITS = 05	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 07 **UNIVERSITY EXAMINATION (THEORY) = 50**	
Focus :	Develop graphical and drawing skills as tools for visualization and representation of design.
Contents :	Familiarization with drawing materials and equipment Architectural lettering Line intensity and precision in plans, sections, elevations etc Principles of Plane and Solid Geometry, Understanding of scales. Sections and Surface Development- Paper Models and Drawings Isometric and Axonometric view Making basic drawings: Plan, elevation and section of a building
AR 2103 BASIC DESIGN & WORKSHOP-I (L=1, S=3, W=3) CREDITS = 05	
INTERNAL ASSESSMENT(TERMWORK/EXERCISES) =50 CONTACT HRS/WK = 07 **UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/VIVA) = 50**	
Focus :	Fundamentals of visual perception
Contents:	Drawing and sketching exercises in various media. Analysis of visual impressions and representing in various media. Understanding elements of visual perception - line, form, space, colour, texture, pattern etc. Relationship of forms and form space. Working with various materials relating visual and tactile qualities to the representative Drawings and sketches making basic geometrical forms and simple shapes in various materials and representing same in drawing from various perspectives, eye levels and

	viewing angles. (Materials like paper sheets, clay, thermocol, wood, Plaster of Paris, stone, plastics etc.).
Method :	Skills to be developed through a series of studio exercises with model making in the workshop classes
AR 2104 BUILDING TECHNOLOGY and MATERIALS - I (L=2,S=3, W=0) CREDITS = 04	
INTERNAL ASSESSMENT(TERM WORK /EXERCISE) = 50 CONTACT HRS/WK = 05 **UNIVERSITY EXAMINATION = 50**	
Focus :	Understanding basic building elements, Introduction of basic building materials, construction process
Contents:	Introduction to various Building components - Structural & Non-Structural; Bond – Types; Masonry – Mud, Bricks, Stone ; Pointing Foundations – Types. Materials - Bricks, stone, Mud, Timber, Lime, Cement , Stone, different types of timber their seasoning quality, etc. ; their physical and behavioural properties, methods of application, criteria for selection of materials based on design
Method :	Lectures on basic construction of building; Class exercises, and case studies. Study of various components of existing building through sketches & models, Site visits Lectures on building materials & their use in building - Visit to manufacturing site e.g. brick kiln, saw mills - Exercises, assignments, drawings - Case studies and documentation.
AR 2105 HISTORY OF ART & CULTURE (L=2, S=0, W=0) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 02 **UNIVERSITY EXAMINATION (THEORY) = 50**	
Focus :	Study of Man and his culture to form- derivation for design – physical manifestation in the contemporary world.
Contents :	Study of ancient world through its history, art, religion, philosophy, etc. to earmark cultural landmarks responsible for shaping human surroundings. Study of medieval and modern times to understand the cultural development through the ages. Architecture and its relationship with other cultural realms, Architecture and society
Method :	Teaching may be lecture-based, along with documentaries/films, readings etc., with a number of assignments/exercise to encourage self-learning as individuals or in groups
AR 2106 ENGLISH AND COMMUNICATION SKILLS (L=1, S=0, W=2) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS/EXERCISES)=100 CONTACT HRS/WK= 03	
Focus :	
Contents:	Basics of Communication **:** Definition and process of Communication Kinesics; Paralinguistic; Phonemics; Presentation Strategies **:** Defining the purpose, How to make an effective presentation; Analyzing audience and locale; Organizing content
Method :	A series of small practical exercises and demonstration.
AE 2107 ELECTIVES-I (L=0, S=0, W=4) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS/PORTFOLIO OF EXERCISES)=100 CONTACT HRS/WK= 04	
Focus :	To help students in exploring their aptitudes and in developing skills in any related field like painting, sculpture, sketching ceramic work, photography etc.
Contents :	A number of subjects shall be offered depending on faculty availability.

	Students may register for **any one** of the offered courses for the semester. Courses that may be offered from time to time : AE 2108/1 - Painting AE 2108/2 - Photography AE 2108/3 - Pottery & Ceramic AE 2108/4 - Sculpture AE 2108/5 - Digital Architectural Presentation AE 2108/6 - Performing Arts AE 2108/7 - Calligraphy AE 2108/8 - Graphic Design AE 2108/9 - Textile AE 2108/10-Print Making
Method :	Portfolio and Project Submission.

SEMESTER II	
AR 2200 RELATED STUDY PROGRAMME	**CREDITS = 02**
INTERNAL ASSESSMENT (TERM WORK) =100	
Focus	To enhance observation and visual perception; develop free hand drawing skills using different techniques, tools and media.
Content	Visit/s to site/s (preferably historical); sketching various natural and manmade objects and settings, visual representation through tools like pencils, chalk, charcoal, ink , oil paints, water colours, etc.

AR 2201 DESIGN STUDIO - II (L=0,S=7,W=0)	**CREDITS =05**
INTERNAL ASSESSMENT (TERM WORK) =50	**CONTACT HRS/WK =07**
UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/ VIVA) =50	
Focus :	Human Scale, Space/Form and the design process.
Contents :	Human Scale: Concept of Scale & Proportions. Form : Elements of Form, various forms and their characteristics. Space: Elements of space making (Enclosure and openings) and exploring the principles of combination. Types of Spaces : Activity space, Circulation spaces, Waiting spaces Movement & Linkages: Kinds and spatial values. Quality of Space: Effects of light, colour, material, texture, views. Design Process: Requirements/needs of project, site-analysis, Activity and other areas and interrelationships, programming & ordering mechanisms, abstract concepts.
Projects :	Small projects of low complexity with focus on above aspects.
Skills :	Models ; application of skills learnt in AGT course such as sciography/ perspective, basic rendering techniques in architectural drawings

AR 2202 ARCHITECTURAL GRAPHIC TECHNIQUES (AGT–II) (L=0, S=6,W=0)	**CREDITS =04**
INTERNAL ASSESSMENT(EXERCISES) = 50	**CONTACT HRS/WK =06**
UNIVERSITY EXAMINATION = 50	
Focus :	To develop skills for technical representation of architectural designs Projects.
Content :	Three dimensional representation of simple & complex forms and architectural objects Isometric, axonometric and perspective (One-point, two-point, three- point) . Three dimensional representations of interior of spaces: Sectional perspectives, axonometric. Sciography of simple & complex forms, shadows on horizontal, vertical, and inclined planes and on objects own surfaces. Sciographic on orthographic, isometric, axonometric and perspective drawings.

	Measured Drawing Exercises Basic representational techniques and rendering in various media. Application of skills learnt, to drawings of studio projects
Method :	A series of exercises to be completed in studio/classroom.
AR 2203 BASIC DESIGN & WORKSHOP-II (L=0,S=4, W=3) CREDITS =05	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 07 **UNIVERSITY EXAMINATION = 50**	
Focus :	Design principles - natural and manmade objects.
Content :	Observing and analysing design of natural objects and manmade objects including geometry pattern, texture, colour composition, solid-void relationships etc. Structure and Composition of shapes and forms. Effects of colour and texture in modification of composition & its perception. Workshop on colour and composition
Method	Series of exercises in studio and ARtual making of objects, and presentation drawings in workshop.
AR 2204 BUILDING TECHNOLOGY AND MATERIALS-II (L=2,S=3,W=0) CREDITS =04	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 05 **UNIVERSITY EXAMINATION = 50**	
Focus :	Advanced materials used in construction of Buildings
Content :	Metal - Ferrous and Non – ferrous - Iron, Steel, Market forms of Steel, Aluminium, Copper, Brick masonry (continued) – Acute / obtuse angled joints, cavity wall construction. Arches – types and their construction. Simple wooden joinery
Method :	Lectures on materials and construction of building elements, conventional practices etc. Studio Exercises and case studies for above. Site Visit to various factories, processing sites etc.
AR 2205 STRUCTURES-I (L=2,S=0,W=0) CREDITS = 02	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 02 **UNIVERSITY EXAMINATION = 50**	
Focus :	
Content :	Introduction of Structure – History, basic terminology of mechanics like mass, force, scalar and vector, basic engineering units, units conversions , Forces (natural and manmade), Primary elements of structure and their behavior ,Concept of Load bearing and Frame structure , Importance of foundations Force and force systems definitions and sketches Law of parallelogram, triangle- Examples and limitation Law of Polygon of forces – Examples (analytical method) Lami's theorem – Free body and space diagram – Examples. Concept of equilibrium, Moment and Couple. Types of loads, supports and their reactions (only point and U.D.L.). Numerical on Shear force and bending moment Diagrams for Simply supported beams, Cantilever Beams and Overhang beams Definition of Point of Contra flexure Center of Gravity and Moment of Inertia Definition Examples -Center of Gravity(One and Two Dimensional) Examples -Moment of Inertia (parallel and perpendicular axis theorem).
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.

AR 2206 SURVEYING & LEVELLING (L=2, S=0, W=2) CREDITS = 02	
INTERNAL ASSESSMENT(TERMWORK/EXERCISE) = 50 CONTACT HOURS =04 **UNIVERSITY EXAMINATION(Theory and Practical) = 50(25+25)**	
Focus :	Techniques for preparation of measured drawings and setting out buildings on site
Content :	Understanding about various instruments used for surveying, chain survey and compass survey. Preparing measured drawings of surveyed area and buildings. Levelling : Equipment used, principles and practice. Taking vertical and horizontal measurements on plain and contoured sites, calculation of areas, mapping contours and site profiles etc. Setting out of buildings on a site.
Method :	Practical demonstration and documented site work is a must to familiarise students with use of all relevant instruments, in addition to lectures on the basic concepts and theory.
AR 2207 ENGLISH AND COMMUNICATION SKILLS (L2, S=0, W=0) CREDITS =01	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100 CONTART HRS/WK= 02 **UNIVERSITY EXAMINATION = 00**	
Focus :	**Spoken English**
Content :	Reading Fluency : Introduction; Reading strategies; Techniques of Reading Developing Reading Comprehension Writing : Mastering the final skill: Paragraphs writing; Business letters ;Report / MOM Writing ; E-mail etiquette ;Telephone conversation
Method :	Demonstration and practicals
AE 2208 ELECTIVES -II (L=0, S=0, W=3) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100 CONTART HRS/WK= 03	
Focus :	To help students exploring their aptitudes and in developing skills in any related field like painting, sculpture, sketching ceramic work, photography etc.
Content :	A number of subjects shall be offered depending on faculty availability. Students may register for **any one** of the offered courses for the semester. Courses that may be offered from time to time : AE 2208/1 - Painting AE 2208/2 - Photography AE 2208/3 - Pottery & Ceramic AE 2208/4 - Sculpture AE 2208/5 - Digital Architectural Presentation AE 2208/6 - Performing Arts AE 2208/7 - Calligraphy AE 2208/8 - Graphic Design AE 2208/9 - Textile AE 2208/10-Print Making
Method :	Portfolio and Project Submission.
B.Arch-II: SEMESTER III	
AR 2301 DESIGN STUDIO - III (L=0, S=09, W=0) CREDITS = 06	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 09 **UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50**	
Focus :	Material and Structure as determinants of Architectural Form.
Contents:	Materials – properties, character. Basic structural system in various materials (timber, mud, brick, Fabric etc.) Structure as a form giver for various materials.

Projects:	Project/s in different contexts to address variations in material Time Problems may be set as exercises based on other material. Design problem & use of at least two building material to make a structures.
Skills :	Preparation of architectural design drawings and models. Site Visits, case studies.

AR 2302 BASIC DESIGN & WORKSHOP-III (L=0,S=4,W=3) CREDITS = 05	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 07 **UNIVERSITY EXAMINATION(CRIT/TIME PROBLEM/VIVA = 50**	
Focus :	Study of Colour on form, as used in manmade environment.
Contents :	Analysis of design principles and composition used in a manmade environment using space abstractions in two and three dimensions. Colour as a Form giver to spaces. Colour : Theory and systems, role and effects of colour and texture in spaces. Analysis of space using monochromatic or Achromatic abstractions in Two-Dimension. Behaviour and effects of coloured compositions (enlargement, shrinkage of spaces, emphasis, warmth and coolness etc.). Rythmn, discord, Harmony, Golden Section.
Method :	Model making in various materials as an aid to design, composition and analysis (use wood, mud, paper, Acrylic, cork, etc.). Composition through paintings.

AR 2303 BUILDING TECHNOLOGY & MATERIALS-III (L=2, S=3, W=0) CREDITS = 04	
INTERNAL ASSESSMENT(TERMWORK/EXERCISES) =50 CONTACT HRS/WK = 05 **UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/VIVA) =50**	
Focus :	Understanding basic Structural Systems, Structural Materials, Construction & erection process.
Contents:	New Materials and their use in Building Construction. Building Elements made out of wood, steel, PVC, aluminium etc.various types of doors and windows, including treatment of sills, lintels etc. / m. s. grill, various types of fittings & Hardware
Method :	Illustrated lectures, case studies of Traditional / Conventional practices. A number of studio Exercises for making drawings of typical details.

AR 2304 HISTORY OF ARCH-I (L=2,S=0, W=0) CREDITS = 02	
INTERNAL ASSESSMENT(TERM WORK /EXERCISE) = 50 CONTACT HRS/WK = 02 **UNIVERSITY EXAMINATION = 50**	
Focus :	A mapping of architectural developments over the world from ancient times to 11th century A.D.
Contents:	Architecture of ancient civilizations : Harappan, Mesopotamian, Egyptian, Central American, European (Greek & Roman), Chinese. Indian architecture from Harappan period, through Buddhist era to Gupta period. Developments ARross the subcontinent in the late Classical period. Development of Western civilization : Early Christian, Byzantine, Medieval, Gothic Emphasis should be on presenting a chronological picture of architectural developments, with comparison to trends in Indian subcontinent and elsewhere
Method :	Lectures, Case-Studies, analytical exercises on built-form of various periods to understand the architectural images of various times and places .

AR 2305 STRUCTURES-II (L=1, S=0, W=2) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 03 **UNIVERSITY EXAMINATION (THEORY) = 50**	
Focus :	

Contents :	Architectural considerations in material selection for structural use. Concept of strength elastic and plastic material. Concept different mechanical properties of material (tensile, compressive, flexure, toughness, and malleability, fatigue with definition) Concept of stress-strain. Types of stress, its importance, elastic limit, yield point, permissible stress, ultimate stress and elongation, concept of stress-strain curve, example based on above topics Analysis of fixed Beam-numerical (Central Point load and Uniformly distributed load by using formula only and shear force & Bending moment diagram. Analysis of Continuous Beam (Definition of Fixed end moment, carry over moment, Relative stiffness and Distribution fARtor, --numerical for all end with fixity)-Moment Distribution Method Analysis of Truss –numerical (methods of joint only for small truss, up to 8-10 members) Analysis of Frames – non-sway type Portal frames, reason of sway, difference (No examples only concept) Types of Arch, and analysis of three hinges parabolic Arch (only reARtion at supports) Concept and importance of deflection in design of structures, Derivation for standard loading condition. (No examples only concept)
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.
AR 2306 CLIMATE AND BUILDING (L=2, S=0, W=0) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 02 **UNIVERSITY EXAMINATION (THEORY) = 50**	
Focus :	Built Environment & Climate
Contents:	Climate – Constituent elements, Classification of tropical climatic zones. Micro & Macro climate. Thermal comfort & principles of Thermal Design. Ventilation – Air movement & fenestration, solar orientation, Sun path pattern & shading devices. Traditional House Form & Settlement pattern in various tropical climates; vernacular architecture Design Tools – Mahoney Tables, Sun Path diagrams, etc. Day lighting – components, architectural methods of borrowing day light; control of glare.
Method :	Exercises to enhance understanding of above concepts. Application of concepts in design work. Time problem to address design issues from climatology point of view.
AR 2307 CAD-I (L=0, S=0, W=3) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 03 **UNIVERSITY EXAMINATION (PRARTICAL) = 50**	
Focus :	Fundamentals of Computer and getting acquainted with basic commands for computer drawings.
Contents:	Fundamentals of Computer, terminology used, basics of various operating systems; Terminology of Windows; Introduction to Autocad Creating Drawings: Line, Circle, rectangle, Polygon, Arc commands Modifying Drawings: Move, copy, offset, mirror, trim, extend etc. commands Drawing Tools: Using co-ordinate system, polar and ortho dynamic Input, object snap etc. Dimensioning and Text: Creating single line text and multiline text.
Method :	Practice in Computer Lab
AE 2308 ELECTIVES-III (L=0, S=0, W=4) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS/PORTFOLIO OF EXERCISES)=100 CONTACT HRS/WK= 04	

Focus :	To help students in exploring their aptitudes and in developing skills in any related field like painting, sculpture, sketching ceramic work, photography etc.
Contents :	A number of subjects shall be offered depending on faculty availability. Students may register for **any one** of the offered courses for the semester. Courses that may be offered from time to time : AE 2308/1 – Painting (Oil) AE 2308/2 - Photography AE 2308/3 - Pottery & Ceramic AE 2308/4 - Sculpture AE 2308/5 – Bamboo work AE 2308/6 - Performing Arts AE 2308/7 - Calligraphy AE 2308/8 - Graphic Design AE 2308/9 - Textile AE 2308/10-Print Making
Method :	Portfolio and Project Submission.

B.Arch-II: SEMESTER IV	
AR 2400 RELATED STUDY PROGRAMME	**CREDITS = 02**
INTERNAL ASSESSMENT (TERM WORK) =100	
Focus	Document an area/locality through measured drawings, reading of history, morphological development etc
Content	Select a small area or locality for documentation through measured drawings, observations, dialogues etc fir the purpose of designing in the physical context.

AR 2401 DESIGN STUDIO - IV (L=0,S=9,W=0)	**CREDITS =06**
INTERNAL ASSESSMENT (TERM WORK) =50 **UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/ VIVA) =50**	**CONTACT HRS/WK =09**
Focus :	Analysis of context as a determinant of Architectural character. Study of built form with special reference to climate, material , social & cultural context, physical environment
Contents :	Cluster & community - street pattern Traditional design and construction principles Issues of modernity and tradition
Projects :	Housing studies of existing settlements. Complete architectural design of project/s of different nature at level of residence & small institution/ work place in the context of a traditional settlement. Dwelling cluster design project (15-20 units to form a small community). Work done in the Related Study Program or the measured drawing of traditional settlement may be used as the context. Interior design may be included as part of programme.
Skills :	Documentation & analysis of existing / traditional settlements; programmed and un-programmed spaces; Full range of architectural graphic techniques and model making in various media must be applied.

AR 2402 BASIC DESIGN &WORKSHOP-IV (L=0, S=3,W=3)	**CREDITS =04**
INTERNAL ASSESSMENT(EXERCISES) = 50 **UNIVERSITY EXAMINATION = 50**	**CONTART HRS/WK =06**
Focus :	Exercises on abstract concepts and ideas in design.
Content :	The design process and role of abstract concepts and ideas as an ordering mechanism to express ideas.

	Symbolism and communication, identity, character and imageability Exploring environmental qualities like light and colour, texture & scale and its usages in expressing design concepts.
Method :	To explore and analyze above aspects for selected architectural projects. To abstract design work to help expression of personal concepts or ideas.
AR 2403 BUILDING TECHNOLOGY & MATERIALS-IV (L=2,S=3, W=0) CREDITS =04	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 05 **UNIVERSITY EXAMINATION = 50**	
Focus :	Understanding of various building components, their place and composition within the systems, possibilities of different material use. Understanding principles & possibilities of various construction Technology & their applications.
Content :	Building Components : - Floor and Floorings Staircase, Stairs, Steps, Ramps. Steel windows Wooden roof construction details Retaining walls, basement Compound wall/Gates
Method :	Market survey & Resource file to be maintained. Conventional practices, documentation. Case studies & Studio exercise
AR 2404 STRUCTURES-III (L=2,S=0,W=2) CREDITS =03	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 04 **UNIVERSITY EXAMINATION = 50**	
Focus :	
Content :	Understanding concrete structures Understanding steel structures Understanding structural drawings Use of code of special practice for R. C. C. members (Indian Standards) R. C. C. STRUCTURES: R. C. C. Theory, Limit State Method, Definition of Permissible stresses, balanced section, under reinforced and over-reinforced section. Analysis and Design of beam (Singly and Double), Concept of Flanged beam Axially and eccentrically loaded columns, types of columns. Design of axially loaded columns & reinforcement detailing. Design of simple one-way and two-way slab ;concept of continuous slab, R. C. C. Staircase Design only waist slab type. Application of thumb rules for beams, columns, Slabs for fixing sectional properties Types of foundations, importance of soil & other factors while recommending type of foundation, concept of combined and eccentric footings, Design of R. C. C. Footing for axial loads.
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.
AR 2405 HISTORY OF ARCHITECTURE-II (L=2,S=0,W=0) CREDITS = 02	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 02 **UNIVERSITY EXAMINATION = 50**	
Focus :	To familiarize students with architectural developments since about 11th century AD to 19th Century A.D.
Content :	Indian Architecture after the introduction of Islamic influences, various regional styles during Islamic period.

	Colonial architecture in India- Imported styles and trends. Developments in Europe after the Medieval period- The Renaissance, Baroque etc.
Method :	Lectures, Case-Studies, analytical exercises on built form to understand the architectural images of various times and places.
AR 2406 BUILDING SERVICES-I (L=1, S=2, W=0) CREDITS = 02	
INTERNAL ASSESSMENT(TERMWORK/EXERCISE) = 50 CONTACT HRS/WK =03 **UNIVERSITY EXAMINATION(Theory) = 50**	
Focus :	Building Services - Water Supply and Waste Disposal.
Content :	Water Supply - Sources, demand & elements of the system, layout and design of system, connections with municipal supply , rain water harvesting systems. Lay out for water supply, drainage & rain water system for a unit (Bungalow, Tenement or Flat) including calculations for storage units e.g. underground and terrace tanks. Waste disposal - Sullage and sewage. Various systems of waste removal and disposal. Fitting of various elements of the system, layout design Septic Tank –Necessity, Constructional and operational features Storm water disposal systems - combined and independent systems.
Method :	Basic information to be given in lectures and application shown in case studies. A market survey for materials & rates may be carried out in order to include new products in market. Preparation of drawings for water supply, drainage & rainwater collection & disposal system for a unit showing details of bathrooms, toilets kitchen, terrace and their connection to the house drainage system.
AR 2407 CAD-II (L=0, S=0, W=3) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 03 **UNIVERSITY EXAMINATION (PRARTICAL) =50**	
Focus :	Thorough application of knowledge of 2 D drawings.
Content :	Layer, Block and XRef Creating layers and assigning objects Using layer properties manager Editing object properties Inserting blocks Attaching external references Preparing layout and plotting; Annotation; Hatch, Super hatch Dimension editing Presentation & detail drawing preparation Isometric view Introduction to 3 D Solid modeling Editing and visualizing solids Rendering and presentation
Method :	Practice in Computer Lab
AE 2408 ELECTIVES -II (L=0, S=0, W=4) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100 CONTART HRS/WK= 04	
Focus :	To help students exploring their aptitudes and in developing skills in any related field like painting, sculpture, sketching ceramic work, photography etc.
Content :	A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester.

	Courses that may be offered from time to time : AE 2408/1 - Painting AE 2408/2 - Photography AE 2408/3 - Pottery & Ceramic AE 2408/4 - Sculpture AE 2408/5 - Digital Architectural Presentation AE 2408/6 - Performing Arts AE 2408/7 - Calligraphy AE 2408/8 - Graphic Design AE 2408/9 - Textile AE 2408/10-Print Making
Method :	Portfolio and Project Submission.

B.Arch-III: SEMESTER V

AR 2501 DESIGN STUDIO - V	**(L=0, S=012, W=0)**	**CREDITS = 08**
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50		**CONTACT HRS/WK = 12**
UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50		

Focus :	Understanding character of Institution. Design of Institutional Campus/Complex
Contents:	Organization and disposition of spaces. Relationship of different functional, service and movement areas. Diversity of user groups, circulation routes. User group needs and client requirements. Influence of culture, climate & technology. Site planning/layout/zoning/ circulation. Landscaping. Idea of an Institutional image/character Ordering theme / idea / concept.
Projects:	Design of an Institution of medium level complexity with a mix of functions. Analysis of various types of case studies of Institutions in different cultures and time periods may be done as group work. Design to be prepared keeping Working Drawings exercise in view. NASA Briefs for ANDC or other trophies may be refined to be taken up as studio programmes in part or full.

AR 2502 BUILDING TECHNOLOGY-V	**(L=2,S=3,W=0)**	**CREDITS = 04**
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50		**CONTACT HRS/WK = 05**
UNIVERSITY EXAMINATION (THEORY) = 50		

Focus :	Understanding the behaviour of two different materials i.e. Concrete and steel their various possibilities, Building elements and components, different processes and products.
Contents :	Materials -Steel and Concrete - R.C.C. Elements - P.C.C. Elements - Precast Elements Building Const. and precognitions/safety measures Different type of slabs and vaults. Damp proofing & Water proofing Thermal Insulations RCC column foundation - Retaining walls, Raft, Pile foundation, cantilever, & combined footing Protection of Structures Constructional/Expansion joints Anti termite treatments Different preservative measures and procedures
Method:	Case studies & documentation of building elements & structure within an architectural context.

	Analysis of elements through models. Studio Exercise.
AR 2503 STRUCTURES-IV (L=1, S=0, W=2) CREDITS = 02	
INTERNAL ASSESSMENT(TERMWORK/EXERCISES) =50 CONTACT HRS/WK = 03 **UNIVERSITY EXAMINATION (WRITTEN) =50**	
Focus :	
Contents:	Understanding types of joints in steel structures, riveted, welded and bolted joints Types of steel sections and their properties Use of code of special practice for Steel members (Indian Standards) Introduction to structural steel, Rolled steel sections, Criteria for selection of steel sections for design. Design and Detailing of a steel structure Analysis of Tension members, compression member & flexural member. Concept of built up beams and columns – recommended uses. Concept of lacings, battening & importance of bracings. Introduction and analysis of footings for steel columns. Conceptual study of general connections – Beam to beam connections – Beam to column connections – column to column connections – column to foundation connection.
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.
AR 2504 HISTORY OF ARCHITECTURE-III (L=1,S=0, W=2) CREDITS = 02	
INTERNAL ASSESSMENT(TERM WORK /EXERCISE) =50 CONTACT HRS/WK = 03 **UNIVERSITY EXAMINATION (WRITTEN) =50**	
Focus :	To encourage analytical studies in architectural history from the information base provided in earlier semesters.
Contents:	Contemporary developments in Architecture in India and world over. Analyzing the roots of the modern movement. Issues of Contextuality, Relevance, identity & meaning of architecture in contemporary cultures. Beginning of Modernism – Europe and America; modern movement and the international style modern masters ; Post modernism & contemporary development.
Method :	The course should be dealt with as a Seminar Course with individual or group seminar presentations on various issues. Guided self-study in an analytical mode should be emphasized.
AR 2505 ACOUSTICS (L=2, S=0, W=0) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 02 **UNIVERSITY EXAMINATION (THEORY) = 50**	
Focus :	Understanding sound control as an important element in creating comfortable functional spaces.
Contents :	Sound -Properties of Sound , room Acoustics . Acoustical defects, sound absorbing materials and sound proof construction. Reverberation, Reverberation time for speech and music and its calculation. Acoustical requirement of various building type. Understanding Auditorium design – defects, ways of overcoming these defects. Noise Control : Means and measures for control, noise insulation, noise control requirements, constructional details and performance. Environmental Noise Control

Method :	Mainly lecture based. Analysis of Live Case Studies of Sound spARes like auditorium, theatre, conference room, etc.

AR 2506 QUANTITIES AND SPECIFICATIONS (L=2, S=0, W=2) CREDITS =03	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 04 **UNIVERSITY EXAMINATION (THEORY) = 50**	
Focus :	Understanding Quantity Surveying & Estimate preparation.
Contents :	Specification : Specification of different building items - general specification and detailed specification. Rate Analysis: Meaning, Importance, Purpose and use, factors affecting rate analysis. Rate analysis of major items of building work. Factors affecting, cost of work task work general information regarding S.O.R. Estimates : Method of computing quantities, mode of measurement of all items of work, units of measurement IS 1200. Estimates of different items of work:- * Compound wall. * Small residential building 1 room with verandah. * Small residential building with 2 room kitchen with Bath W.C. * Two storied residential building. * R.C.C. work column, flooring, Beam - T Beam, Slab - One way/Two way; Slab including centering, shuttering & reinforcement. * Steel truss. * Material requirement for above items including Brick work; R.C.C.; Wooden items; doors, windows, Glass. * Measurement Book its entry checking and preparation of Bill etc. standard M.B. Term Work : Over and above the mentioned items, Estimate of Septic Tank, Soak Pit, Sanitary item – Plumbing, Electrification. Rate analysis of all major item to be prepare
Method :	Lectures, practicals, demonstrations, exercises

AR 2506 GREEN & SMART BUILDING DESIGN CONCEPTS (L=2, S=0, W=0) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 02 **UNIVERSITY EXAMINATION (THEORY) =50**	
Focus :	Getting acquainted with green concepts in general and knowing design strategies for high performance green/energy efficient buildings/sites
Contents:	Introduction to sustainability, Green buildings & intelligent buildings, impARt of building construction/industry on environment, Methods and tools of building assessment, the green building process, green rating systems and documentation, site and landscape strategies, building energy system strategies, material selection strategies, Indoor environmental quality, carbon accounting, green building codes; energy management systems
Method:	Theory, case studies and analysis

AE 2508 ELECTIVES -V (L=0, S=0, W=4) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100 CONTACT HRS/WK= 04	
Focus :	To help students in exploring their aptitudes and in developing skills in fields of their choice.
Contents :	A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time : AE 2508/1 – Creative Writing AE 2508/2 – Appreciation of Art through Literature

	AE 2508/3 – Sustainable Development Goals AE 2508/4 – Architectural Futures AE 2508/5 – Product Design AE 2508/6 – Sustainable Architecture AE 2508/7 – Bio-mimetic Architecture AE 2508/8 - Advanced Climatic design AE 2508/9 – Artificial illumination AE 2508/10-Apprreciation of Music
Method :	Portfolio and Project Submission.

B.Arch-III: SEMESTER VI

AR 2600 RELATED STUDY PROGRAMME CREDITS = 02

INTERNAL ASSESSMENT (TERM WORK) =100

Focus	To enhance observation and understand detailing of high rise/ typical structures.
Content	Visit/s to site/s to contemporary; sketching, constructional details, site planning features, natural landforms and landscape

AR 2601 DESIGN STUDIO - VI (L=0,S=14,W=0) CREDITS =10

INTERNAL ASSESSMENT (TERM WORK) =50 CONTACT HRS/WK =14
UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/ VIVA) =50

Focus :	Architectural Detailing And Execution Drawings.
Contents :	Execution drawing systems and methods. Trade literature, detailing methods, architectural working drawings Choice of materials, fixtures, fittings, availability and constructional feasibility. Integration of building systems and services. Detailed drawings to include all components of building like doors, windows, lifts, staircases elevators etc.
Projects :	Construction drawings of previous semester design project (part or full) including specifications & estimations. Additional design project (small) may be taken alongside for development to complete architectural detailing. Full set of working drawings for the project
Skills :	Construction drawings & models. Specification writing, Computation of qualities & costing.

AR2602 SITE PLANNING AND LANDSCAPE DESIGN (L=1, S=3,W=0) CREDITS =03

INTERNAL ASSESSMENT(EXERCISES) = 50 CONTACT HRS/WK =04
UNIVERSITY EXAMINATION = 50

Focus :	Principles of Landscape design, its techniques and application. Understanding Ecology, Ecosystem, environmental conservation
Content :	Ecology, Environment, Components, Ecosystem at various levels, conservation of natural resources, rainwater harvesting Elements of Landscape: Landforms, plant materials, water, rocks, lighting etc. Types of Soils, plant materials (trees, shrubs, ground covers, creepers, flowering and non-flowering rocks and stones, water bodies. Surfacing Materials, landforms, manmade elements. Historical and contemporary attitudes to landscape in Indian and other context. Principles of landscape design: surfacing, enclosure vistas, visual corridor, composition of plant and other material, etc. Preparing Landscape design presentation drawing (using symbols etc.)
Method :	Studio Exercise, Site Visit, Seminar, Presentation etc.

	Design assignment may be done as part of Studio project.
AR 2603 BUILDING TECHNOLOGY - VI (L=2,S=3, W=0) CREDITS =04	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 05 **UNIVERSITY EXAMINATION = 50**	
Focus :	Understanding construction process of Interior Construction and material use.
Content :	Interior Construction Partitions / Panelling False Ceilings Elevators, Escalators Cabinets and Furniture. Kitchen platform Internal/External finishes Glazing
Method	Case Studies, Site Visits, Trade Literature Collection Studio exercises.
AR 2604 STRUCTURES-V (L=1,S=0,W=2) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 03 **UNIVERSITY EXAMINATION = 50**	
Focus :	
Content :	Understanding complex structural systems, Concept of structural failure and safety of structures, Types of failure in various structures, Causes of failure, Evaluation of damage Pre stressed concrete structure: conditions for adopting of pre stressed concrete beams and girders. Basic concepts, Advantages, Materials required, Systems and methods of Prestressing, Analysis of sections, Stress concept, Losses of prestressing Importance of ductile detailing, capacity design concept, strong column weak beam theory, Ductile detailing of beams and columns as per IS: 13920. Seismic strengthening and detailing of masonry buildings as per IS:4326, masonry failure theories, Provision of various types of bands and vertical reinforcements, effects of openings, seismic strengthening measures and detailing as per IS:4326 Theoretical concepts, specifications and Selection criteria for structural system like arches, folded plates, cable structures, shell structures, types of shells, circular and rectangular water tanks. Retaining walls, diaphragm, basement walls, flat slabs, Grid floor, large span girders in RCC and Steel, RCC box girders, plate girders, castellated sections, Soils and bunkers Theory and principles for structural design of tall buildings, Case studies etc.
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in studio project is discussed.
AR 2605 BUILDING REGULATIONS (L=1,S=0,W=0) CREDITS = 01	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 01 **UNIVERSITY EXAMINATION = 50**	
Focus :	Regulations for development control and quality as a means of ensuring minimum standards of Building performance and environmental quality.
Content :	Need and rationale for development and building control, prevailing legislation (various Acts) under which Rules and Regulations have been worked out, National Building Code. Definitions and explanation of various terms like Act, Rules, Regulation, Development Plan, Planning Authority, Local Authority, Built-up Area, Building Unit, FSI / FAR, Plot coverage, Margins, Setbacks, Development permissions, occupancy certificate etc.

	General development requirements and regulations in Gamtal and Revenue Survey areas, for Industrial Areas, Low cost Housing and other special structures. Procedure for securing Development permission and documents required.
Method :	Mainly lecture-based with illustrations.
AR 2606 BUILDING ECONOMICS (L=1, S=0, W=3) CREDITS = 01	
INTERNAL ASSESSMENT(TERMWORK/EXERCISE) = 50 CONTACT HOURS/WK =01 **UNIVERSITY EXAMINATION(Theory) = 50**	
Focus :	Understanding economic process in society and the economics of building housing etc. Problem of economics, Market economy, Wants vs Means
Content :	Basic concepts of the economics, demand and supply economic cycle, different types of economics, traditional and modern approaches. Production process, need-demand and supply, economics of scale, Forecasting demand. Economics of building industry, Housing markets, Land Markets, concept of affordability, invisible law theory, price control.
Method :	Assignments, Article presentation
AR 2607 BUILDING SERVICES-II (L=2, S=0, W=0) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=50 CONTACT HRS/WK= 02 **UNIVERSITY EXAMINATION(WRITTEN) =50**	
Focus :	(A) Building Electrical Services, Communication Systems and Air conditioning. (B) Mechanical Circulation, automated system, (C) Artificial water bodies (SWIMMING POOLS).
Content :	(A) Electrical Services - Power Connection, A.C. & D.C., conduits, distribution board and fuses, Wiring System (concealed & open) fixtures, design of layout and symbols for representation. Communication systems (telephone, fax, EPABX etc.) and their layouts and connections. (B) Air conditioning and mechanical ventilation, Importance of Air-conditioning, Types of A/C., components of an A.C. system. , ducting, layout and design drawings. ARSCUE treatment. Lifts: General design, Classification & Installations of Lifts. NBC norms & guidelines, capsule lift; Escalators Elevators, Moving pumps and walks. Automated systems: Alarm systems, automatic lighting and A.C. systems, door closing / opening etc. **(C)** Swimming pools, garden pools, fountains system
Method :	Mainly lecture-based, illustrations & case studies. Layout, installation in studio project is discussed.
AE 2608 ELECTIVES -II (L=0, S=0, W=4) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100 CONTACT HRS/WK= 04	
Focus :	To help students in exploring their aptitudes and in developing skills in fields of their choice.
Content :	A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time : AE 2608/1 – Creative Writing AE 2608/2 – Appreciation of Art through Literature AE 2608/3 – Sustainable Development Goals AE 2608/4 – Architectural Futures AE 2608/5 – Product Design AE 2608/6 – Sustainable Architecture AE 2608/7 – Bio-mimetic Architecture AE 2608/8 - Advanced Climatic design

	AE 2608/9 – Artificial illumination AE 2608/10-Apprreciation of Music
Method :	Portfolio and Project Submission.

B.Arch-IV: SEMESTER VII

AR 2701 OFFICE TRAINING (L=0, S=07, W=0) CREDITS = 25

INTERNAL ASSESSMENT(T.W.) = 50 CONTACT HRS/WK = 35-40

UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50

Focus :	To make students aware of and to inculcate a sense of appreciation in all the operations that take place- right from the preliminary sketch design to the completion of the project.
Contents:	The students must complete a minimum of sixteen-eighteen weeks (minimum 90 working days) of training in a registered architectural practice firm. They are required to participate in each activity of the organization for a minimum period of one week. Maintaining a weekly report file and recording their activities during training period in detail The student is also expected to do case study of one project that he is associated with, during his training period. This study should include a complete documentation and analysis of the architectural / structural and constructional aspects of the project. Details which are deemed confidential by the firm should not be included in the study report, which must be submitted along with the Weekly Report File. A student is expected to work on preparation of Municipal drawings, basic knowledge about documentation, tender work, marking of layout on site, sanitary fittings, office administration etc.
Method:	A student shall work in well established private architect's office, or government, semi – government office related to architectural work.

B.Arch-IV: SEMESTER VIII

AR 2801 DESIGN STUDIO - VIII (L=0,S=18,W=0) CREDITS =12

INTERNAL ASSESSMENT (TERM WORK) =50 CONTACT HRS/WK =15

UNIVERSITY EXAMINATION (CRIT/TIME PROBLEM/ VIVA) =50

Focus :	Housing Design
Contents :	Study of Housing designs & Urban neighbourhoods to understand the nature and character of user group, historical development and future growth trends, socio-economic and environmental characteristics, issues of density, land use, ground coverage. Analysis of land use, ground coverage, density, building line, housing typology, transport and circulation systems, form & character of built- environment and open spaces. Relationship between socio-economic & cultural aspects and physical fabric of the settlement. Influence of climate and geo-physical attributes of the location.
Projects :	Housing design for a rapidly urbanizing settlement in the vicinity or a sector of a large urban area.
Skills :	Analysis of multiple aspects of emergent design pattern of settlement, synthesis of diverse requirements. Resolution of diverse demands/requirements. Application of social, environmental, economic and political issues in the shaping of settlements.

AR2802 DESIGN SEMINAR (L=0, S=0,W=4) CREDITS =02

INTERNAL ASSESSMENT(EXERCISES) = 50 CONTART HRS/WK =04

UNIVERSITY EXAMINATION = 50

Focus :	Theory, techniques and issues in design of residential areas.
Content :	Definition and scope of Housing, residential areas as a part of urban areas. Structure and elements of Residential Areas - Built-form, Open spaces and Circulation, Infrastructure & Amenities Hierarchy of linkages, Concepts of density - gross density, net residential density, areas per person. Building Typologies and forms, relationship of built form density, F.S.I. etc.

	Theories & approaches to residential area, design issues in Housing.
Method :	Basic information to be in form of lectures with case studies and illustrations. Students are to examine views related to housing design through assignments concluding with a seminar presentation.
AR 2803 BEHAVIOURAL SCIENCE (L=2,S=0, W=0) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 02 **UNIVERSITY EXAMINATION = 50**	
Focus :	(A) Developing an awareness of how social dimensions play an important role in shaping Built Environment. (B) To develop an awareness towards the Psychological responses created due to particular type of built environment.
Content :	(A) SOCIOLOGY Essential elements of society – Bio - Socio – Cultural societies. Characteristics of Human Society. Social Norms, their origin & classification Status & role, ascribed & Achieved statuses, social esteem Primary groups, and secondary groups. Family & its problems Characteristics of Urban Social life. Process of Urbanization in India, Urbanization & Industrialization. Social issues of Urban life. (B) ENVIRONMENTAL PSYCHOLOGY: Psychology - definition and scope. Environmental Psychology, it objectives. Types of environment; Built environment - factors contributing to its efficiency (colour, ambient aspects, size and shape) personal variables effecting environmental psychology, furnishings. Personal space, Defensible space and Territoriality. Housing - Single family and multi-family dwelling; behaviour in public housing areas. Institutional buildings - hospitals, mental institutions, penal institution Offices- behaviour in workplaces: landscaped offices vs traditional office. Environment as a source of a threat and Role of an Architect.
Method	Lectures, seminars, case-studies
AR 2804 ADVANCED CONSTRUCTION TECHNOLOGY & MANAGEMENT (L=1,S=0,W=2) CREDITS =02	
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 CONTACT HRS/WK = 03 **UNIVERSITY EXAMINATION = 50**	
Focus :	(A) Understanding construction of complicated buildings and structures. (B) Techniques for planning and implementation of construction projects
Content :	(A) CONSTRUCTION TECHNOLOGY Geodesic forms. Shell structures. Long span structures / Light weight structures - space frame, Cable/ catenary structure Construction of High Rise Buildings Intelligent Buildings and automation systems Building Engineering and system design Passive buildings Life safety concerns Fire protection (B) PROJECT MANAGEMENT

	Nature of construction projects, need for proper planning and Management Processes and Equipment used. Techniques for scheduling : bar charts, Network diagram, project Evaluation and Review Techniques, Critical path Method. Practical implementation and application of PERT and CPM to typical construction projects. Maintenance of records, bills and method of making payments.
Method :	Lecture based with series of exercises on various management techniques.
AR 2805 HISTORY OF (URBAN) TOWN PLANNING (EKISTICS) (L=2,S=0,W=0)	**CREDITS = 02**
INTERNAL ASSESSMENT(TERM WORK /EXERCISES) = 50 **UNIVERSITY EXAMINATION = 50**	**CONTACT HRS/WK = 02**
Focus :	To acquaint the students with the development in the field of Town Planning/Urban Design / Settlement design
Content :	History of Town Planning/Settlement design/Urban design. Theories and approaches. Examples of various historical experiments across the world. Developments in India from early times to the present day. Vedic Planning concept, Islamic planning, western planning. Role of Sir Patrick Geddess & others in planning processes Contemporary practices-evolution of sustainable, smart, resilient cities Role of Urban laws in city making. Development plan & its procedure.
Method :	The course is mainly intended to be lecture based, with case studies and illustrations.
AR 2806 INFRASTRUCTURE SERVICES (L=2, S=0,W =0)	**CREDITS =02**
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS) =50 **UNIVERSITY EXAMINATION (WRITTEN/ THEORY EXAM.) = 50**	**CONTACT HRS/WK= 02**
Focus :	Settlement Infrastructure Services
Content :	Water Supply for large scale settlement; including Rainwater harvesting. Supply systems, layout, intake units, and storage. Water purification & disinfection with spatial requirement for the same. Waste & Waste water handling. Types of wastes: storm water, garbage, sullage, sewage, Industrial wastes. Different types of drains and sewer, sewer appurtenances. Handling by septic tank and alternative methods. Sewage treatment works, treatment units and their spatial requirements. Sewage disposal by different method. Roads - types, alignment, width and carriage width of roads, shoulders, curves, super- elevation, curbs etc.(Geometric Design). Parking spaces, rules & general requirements. Fire fighting-requirement for fire fighting, fire hydrants, their location & specifications. Lighting-arrangement of street lighting, density, spacing height etc., Location of transformer substation & their spatial requirements. Telecommunication-various modes of telecommunication, relevance with planning, and precautions to be taken while planning including spatial requirements.
Method :	Lectures, seminars, case studies
AE 2807 ELECTIVES -VII (L=0, S=0, W=3)	**CREDITS =02**
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100	**CONTACT HRS/WK= 03**
Focus :	To help students in exploring their aptitudes and in developing skills in fields of their choice.
Content :	A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time :

	AE 2808/1 – Architectural Journalism AE 2808/2 – Slum redevelopment AE 2808/3 – Structures of Special buildings AE 2808/4 – Digital Fabrication AE 2808/5 – Product Design AE 2808/6 – Sustainable Architecture AE 2808/7 – Bio-mimetic Architecture AE 2808/8 - Advanced Climatic design AE 2808/9 – Artificial illumination AE 2808/10- Advanced computer graphics
Method :	Portfolio and Project Submission.

B.Arch-V: SEMESTER IX

AR 2901 DESIGN STUDIO - IX (L=0, S=21, W=0) CREDITS = 15	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 21 **UNIVERSITY EXAMINATION (JURY/TIME PROBLEM/VIVA) = 50**	
Focus :	To evaluate the ability of students to deal with and resolve complex issues into a valid expression of architectural character and contextuality. Focus is on the architecture for the collective design of Settlement level Institution/Housing/Amenity.
Contents:	Architecture for the Public Domain is emphasized through detailed analysis & study of a town/ or parts. Design resolution for a project in the urban fabric selected within a given town, with the intention of developing individual designs for diverse projects within on overall conceptual development for the settlement. A comprehensive resolution of all aspects of the project- detailed design, control mechanisms, structure and materials, landscaping etc. must be stressed.
Projects:	Projects could be of the following nature : Urban infill, Slum Up-gradation, Conservation and Revitalization of core areas, new development etc.
Skills :	Reading urban fabric, urban analysis, urban graphical representation
AR 2902 DESIGN SEMINAR (L=0,S=0,W=4) CREDITS = 02	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 04 **UNIVERSITY EXAMINATION = 50**	
Focus :	Theory, techniques and issues in design of Public Realm.
Contents :	Brief history of Urban design, its scope and examples. Basic concepts, principles and techniques. Theories and approaches of eminent designers and theoreticians with illustrative cases. Structure and elements of urban areas, nature and development. Contemporary approARhes to urban design. Issues and aspects of urban design.
Method:	The course is expected to provide the inputs required for the Design Studio through lectures and discussion, also encourage enquiry and investigation into existing literature by the student to elaborate on contemporary issues and cases is the form of a term paper which can be presented in a class seminar
AR 2903 THESIS ORIENTATION (L=1,S=3,W=0) CREDITS = 03	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 04 **UNIVERSITY EXAMINATION = 50**	
Focus :	Understanding the methodological approach to carry out a research based programme in order to design an architectural project involving a set of complex issues.

Contents :	Nature and function of research, scientific research, meaning of research in the field of architectural design. Pure and applied research. Stages of research and design; design and research methodology Techniques of data collection Forms of research reporting, structure of a report Writing skills, presentation aids Use of primary and secondary references, bibliography, notations, cross reference etc. Nature of an undergraduate thesis, its structure and other requirements.
Method:	The course must be conducted as a mix of lectures/discussions with a number of assignments and exercises to impart the skills necessary for carrying out the dissertation. Preparation of a viable proposal for the next semester's dissertation work is expected by the end of the semester.

AR 2904 CONSERVATION (L=2,S=0,W=0) CREDITS = 02	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 02 **UNIVERSITY EXAMINATION = 50**	
Focus :	Conservation of historical monuments, buildings and sites.
Contents :	Architectural Conservation: Need and Importance of conservation of historical monuments, buildings. Urban Conservation: Identification of areas for conservation. Approaches and techniques. Landscaping, maintenance and management of conserved areas or buildings. Case studies from India and abroad. Restoration of old buildings - materials used, techniques and equipment. Deterioration and preventive measures. Funding agencies, NGOs, Government and other institutions involved in Conservation, Grading and Listing of Conservation property, Ethics of Conservation, Glossary of terms, Documentation, significance and types
Method:	Case studies, illustrations, assignments & presentation

AE 2905 ELECTIVES -VIII (L=0, S=0, W=3) CREDITS =03	
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100 CONTACT HRS/WK= 03	
Focus	To help students in exploring their aptitudes and in developing skills in fields of their choice.
Content	A number of subjects shall be offered depending on faculty availability. Students may register for any one of the offered courses for the semester. Courses that may be offered from time to time : AE 2908/1 – Architectural Journalism AE 2908/2 – Slum redevelopment AE 2908/3 - Theatrics AE 2908/4 – Digital Fabrication AE 2908/5 – Product Design AE 2908/6 – Sustainable Architecture AE 2908/7 – Bio-mimetic Architecture AE 2908/8 - Advanced Climatic design AE 2908/9 – Artificial illumination AE 2908/10- Advanced computer graphics
Method	Portfolio and Project Submission.

B.Arch-V: SEMESTER X

AR 21001 THESIS (L=0,S=30,W=0) CREDITS = 20	
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50 CONTACT HRS/WK = 30 **UNIVERSITY EXAMINATION (JURY/CRIT) = 50**	
Focus :	Inquiry by Design / Research
Contents :	The Thesis is intended to evaluate the student's capacity and maturity in the field of Architecture. Study in the chosen field to be carried out in two stages : A) Data collection & analysis - An in depth investigation into the aspects of the chosen area.

	- Analysis of data, inferences to establish underlying principles. - Reviews of existing practices / theory in view of current contexts. B) Design / Research - Prepare detailed programme - Design or Research on basis of studies carried out in Part A

AR 21002 PROFESSIONAL PRACTICE	**(L=2,S=0,W=0)**	**CREDITS = 02**
INTERNAL ASSESSMENT(T.W./PERIODIC REVIEW) = 50		**CONTACT HRS/WK = 02**
UNIVERSITY EXAMINATION = 50		

Focus :	Creating an awareness of the role & responsibilities of an architect
Contents :	Role of an Architect, responsibilities and liabilities with respect to client and society. Duties, powers and functions. Architects Act 1972- aims, objectives, provisions for registration with Council of Architecture. Rules and regulations under the Act, Indian Institute of Architects and its role. Professional work and scale of fees, mode of working and payments, phasing of projects etc. Architectural Competitions- need, procedures for conducting, rules and regulations etc. Arbitration - settling of disputes through arbitration, the Arbitration Act, procedures and method of working. Role of an architect as an Arbitrator. Valuation of properties - land and buildings, role of architects as approved valuers. Methods & Techniques for valuation. Tendering, contracts and articles of agreement, execution of contract, appointment of clerk of works, site supervisor, contractor and subcontractor etc. Office Management: Types of firms and legal implications. Accounts and Finance, procedures for loans. Maintaining office records. Office personnel and legal provisions regarding employees of small firms. Settling problems and disputes arising out of contract conditions extra items variation in work quality, insurance and compensation of workers etc.
Method:	The course must be conducted as a mix of lectures/Expert Talks by practicing Architects on their approaches /discussions with a number of assignments and exercises.

AE 21003 ELECTIVES -IX	**(L=0, S=0, W=3)**	**CREDITS =02**
INTERNAL ASSESSMENT(TERM WORK /ASSIGNMENTS)=100		**CONTACT HRS/WK= 05**

Content	A number of subjects shall be offered depending on faculty availability. Students may register for **any one** of the offered courses for the semester. Courses that may be offered from time to time : AE 21002/1 – Architectural Journalism AE 21002/2 – Slum redevelopment AE 21002/3 – Vernacular Architecture AE 21002/4 – Alternative Building Technologies AE 21002/5 – Interior Design AE 21002/6 – Sustainable Architecture AE 21002/7 – Bio-mimetic Architecture AE 21002/8 - Advanced Climatic design AE 21002/9 – Artificial illumination AE 21002/10- Entrepreneurship

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