

	FIRST YEAR OF B.ARCH: SEMESTER I			
ARC 2100 S	SOCIAL SERVICE (N G O)-I CONTACT HRS/WK = 03 (L=0,S=0,W=3) CREDITS = 03			
Focus :	To develop more sensitive approach towards practical world			
	Students shall apply for 8 weeks of Part-time or 2 Weeks of full-time Work with any			
Contents:	Semi-Government / SOS of Any Corporate Sector / Non-GovernmentOrganization from the			
	surrounding area.			
Projects	Students shall submit the details about their work profile with the Institute, Responsibility			
	sharing and experience during Internal assessments.			
Method:	After the second-semester exam, One month internship.			
	Portfolio and Presentation end of the workshop.			
Skill:	Students have the incredible opportunity to develop different various skills like, communication,			
	cultural learning approach, management skill, Accounting, research, punctuality, teamwork,			
	marketing strategies, cooperation and leadership qualities.			
Outcome:	To develop a Sensitive approach towards issues being faced in the world outside the			
	construction industry.			





ARC 2101 A	ARCHITECTURAL DESIGN STUDIO-I CONTACT HRS/WK=09 (L=0,S=9,W=0) CREDIT = 09
Focus:	Develop Understanding of Anthropometrics , Shelter and Visual Perception Enhancement
Focus : Contents:	Develop Understanding of Anthropometrics , Shelter and Visual Perception Enhancement Visual Perceptions: Understanding Elements Of Visual Perception-line, form, space, color, texture, patternetc. Relationshipofformsandformspace. 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 sameindrawing from various perspectives, eyelevels and Viewing angles. (Materials Like Paper sheets, clay, thermal coal, wood, Plaster of Paris, stone, Anthropometrics: Human dimensions and proportions; Basic Shelter: Understanding Shelterasaresultant Of Various Forces: culture, climate, site & technology: exercises to provide exposure to various types of shelter. Analysis of various types
Projects:	Sketching techniques with different mediums. Site Visits to expose students 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 designed spaces may be attempted for final project, using Models to facilitate visualization.
Outcome:	Students shall be able to understand scale and proportions with reference to human anthropometry. Understanding of Space requirements shall be developed with focused ergonomics. Students shall be able to represent their ideas in 2d and 3d with sketching and model making.

Charutar Vidya Mandal University



DETAILED SYLLABUS AND TEACHING SCHEME EFFECTIVE FROM ACADEMIC, YEAR 2021-22 FACULTY OF ARCHITECTURE & PLANNING, SMAID

Shantaben Manubhai Patel School of Studies & Research in Architecture & Interior Design

Department of Architecture



ARC2102 ARCHITECTURAL GRAPHIC TECHNIQUES(AGT-I) CONTACT HRS/WK =03 (L=1,S=2,W=0 CREDITS = 03 Develop graphical and drawing skills as tools for visualization and representation of design. **Focus Contents** Unit 1 General introduction of Architecture drafting fundamentals, drafting equipment and materials. Drafting techniques, line work, line types, line weights, line quality. Single stroke, letters uppercase, lowercase, vertical and inclined line. Unit 2 Architectural lettering Unit 3 Line Intensity And precision in Plans, sections, elevations to Principles Plane Solid Geometry, Understanding of scales. Unit 4 Sections and Surface Development- Paper Models and Drawings Isometric and Axonometric view Unit 5 Making basic drawings: Plan, elevation and section of a building.

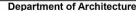
Method:	Hand Drafting with the use of tools as Parallel, Set square etc. on Drawing Boards.	
Skill:	Development of Architectural Drafting and Drawing representation skills	
Outcome:	Students shall learn to develop technical drawings for simple objects and simpler spaces in coordination with AR 2101 Project development.	





ARC2103 B	SUILDING CONSTRUCTION CONTACT HRS/WK= 03 (L=2,S=0,W=1) CREDITS = 03
Focus:	Understanding Basic Building Elements, Introduction Of Basic Building Materials, construction process
Contents:	Unit 1
	Introduction to types of building materials
	(Materials-Bricks, stone, Mud, Timber, Lime, Cement, etc)
	Unit 2
	Introduction to timber and seasoning method
	(Properties, methods, cross section of trunk, uses, behavioral, Advantages and disadvantages)
	Unit 3
	Types of brick bonds
	Unit 4
	Types of Foundation
	Unit 5
	Wall Section
	(Frame Structure, Load bearing structure and composite structure)
Method :	Lectures on basic construction of buildings; Class exercises, and case studies.
	Studyofvariouscomponentsofexistingbuildingthroughsketches⊧,Sitevisits
	Lecturesonbuildingmaterials&theiruseinbuilding
	- Visittomanufacturingsitee.g.brickkiln,sawmills
	- Exercises,assignments,drawings
	- Case studies and documentation.
Skill:	To improve the skills and understanding of aspects such as structural systems, Materials
	understanding and application, construction details, planning, building standards and
	specifications, different types of modern and traditional construction detailing with materials
	exposure, and finishes.
Outcome:	Student shall understand the overall qualitative aspects of Basic Construction Materials i.e.
	Bricks, Mud, Stone, Timber, Lime, Cement etc. and learn implementation techniques in relation
	to the behavior of the specific materials.







Focus :	Amappingofarchitecturaldevelopmentsovertheworldfromancienttimesto11thcenturyA.D
Contents:	Unit 1 Architecture Of ancient civilizations: Harappan civilization, town planning system, social life and economy of this time, architectural developments during harappan civilization Unit 2 Mesopotamian, Egyptian culture, society ,background, architectural developments, key structures and elements to identify such structures Unit 3 Central American, European (Greek & Roman), Chinese architecture of ancient time explaining art and Unit 4 Indianarchitecturefrom Harappa period,throughBuddhisteratoGuptaperiod. Developments Across the subcontinent in the late Classical Period. Unit 5 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 :	Teaching Maybe Lecture-based, along with documentaries/films, readings etc., with a number of assignments/exercise to encourage self-learning as individuals or in groups
Skill:	Understanding contribution of Architecture
Outcome:	Students shall be able to appreciate the history of evolution of Architecture and develop a basic reasoning towards need and use of specific materials throughout the process of evolution of shelters.





ARC 2105	SURVEYING and LEVELLING CONTACT HRS/WK= 03 (L=1S=0,W=2) CREDITS =03
Focus:	To inform students about the field and its topography to prepare maps or drawings; for any civil or architectural work.
Contents:	Unit 1 Introduction Definition, classification, principles of surveying, Units of measurement, Scale, Signs convention.
	Unit 2 Chain Survey: - Instruments used, Types of chain, Instruments for ranging, Setting out angles,
	Erecting perpendiculars, Selection of station, Methods of taking offset and Obstacles in chaining.
	Unit 3 Plane Table Survey:- Plane table and accessories, Methods of plane table survey, Radiation, Intersection, Traversing and resection.
	Unit 4 Compass Survey:- The prismatic compass, Surveyor compass and its construction and uses, Reduced and whole circle bearing, Magnetic declination, Effect of local attraction.
	Unit 5 Leveling Contouring Definition, Types of level, Booking and reduction of levels, Profile cross section leveling, Errors in leveling. Characteristics of contours, Direct and indirect methods of contouring, Interpolation, Uses of contours, Calculation of area & volume. Theodolite:- Study of instruments, Definition of different terms, Temporary adjustments, Uses, Measuring horizontal and vertical angles, Method of repetition, Extension of lines.
Method :	A series of small practical exercises and demonstrations.
Skill:	To improve knowledge and skills related to surveying and leveling principles, handling and management of site and topography.
Outcome:	This course will help the students to get familiar with the various surveying instruments and will help improve the understanding of topography of building sites. This course will provide an opportunity to develop skills of surveying at primary level.







ARC2106	COMMUNICATION SKILLS CONTACT HRS/WK= 02 (L=1,S=0,W=1) CREDITS =02
Focus:	To Develop Confident Communication skills, and Soft skills required to address the Audience
Contents:	Unit 1
	BasicsofCommunication:
	Definition and process of Communication Kinesics; Paralinguistic; Phonemics;
	Unit 2
	Presentation Strategies :
	Defining the purpose, How to make an effective presentation; Analyzing audience and locale; Organizingcontent, Impromptu speeches, Group Discussions, Assignment based interaction, Vocabulary development, Planning, Developing and Delivering speech
	Unit 3 Reading Fluency: Introduction; Reading strategies; Techniques of Reading Developing Reading
	Unit 4 Comprehension Writing:
	Mastering the final skill: Paragraphs writing; Business letters ;Report / MOM Writing ;E-mail etiquette ;Telephone conversation
Method :	A series of small practical exercises and demonstrations.
Skill:	Improve the communication language for writing, listening and speaking.
Outcome:	Students shall be aware of technical terms, body language, professional representation and outlook essential as a representation of an Architect.



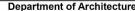




ARC2107	COMPUTER STUDIO CONTACT HRS/WK= 02 (L=1,S=0,W=1) CREDITS =02
Focus:	To develop skills in basic tools of Microsoft Office
Contents:	Unit 1 Introduction
	Computers and hardware, General idea about popular operating systems and software, Basics of
	Internet.
	Unit 2 MS Offices Word
	Create a document that can be used by previous versions of word, Saving
	Options.
	Create a document -
	Open a new document and start typing, Start a document from a template, Delete a document,
	Add a heading, Adjust the spaces between lines or Paragraphs, Insert a page break, Insert a
	picture or clip art, Insert or create a table, Headers, Footers, and Page numbers, Create a table
	of contents, Apply themes to Word documents, Add a cover page.
	Read documents in Word –
	Read a document, Markup a document, Find or look up words and phrases, Turn on or off - full
	screen reading view.
	Unit 3 MS Office – MS Excel
	Getting Started with Excel –
	Create a workbook, Enter data in a worksheet, Format a worksheet, Format numbers in a
	worksheet, Print a worksheet, Create an Excel table, Filter data by using an auto filter, Sort data
	by using an auto filter, Apply conditional formatting, Apply data validation, Create a formula,
	Use a function in a formula, Chart your data, Create a macro, Create a pivot table report,
	Activate and use an add-in
	Keyboard shortcuts in Excel 2010 –
	Keyboard access to the ribbon, CTRL combination shortcut keys, Function keys, Other useful
	shortcut keys.
	Unit 4 MSOffice – MS Powerpoint
	Create a basic PowerPoint presentation - Name and create a new presentation, Open a presentation, Save a presentation, Insert a new slide, Add, Rearrange and delete slides, Add text
	to a slide, Apply a template to your presentation, Apply a theme to add color and style to your
	presentation, Insert a picture or clip art and insert content or insert a screenshot, Add, Change,
	or Delete shapes, Create a smart art graphic, Add slide numbers, Page numbers, Date and time,
	Create a hyperlink, Deliver and distribute your presentation, View a slide show and View your
	speaker notes privately, while delivering a presentation on multiple monitors, Print out a
	presentation, Tips for creating an effective presentation
Method :	A series of small practical exercises and demonstrations.
Skill:	Improve the software and digital presentation drawings skills in the design field.
Outcome:	Students shall gain a thorough knowledge about Microsoft Office Tools.









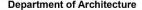
ARC2108 WORKSHOP-I		CONTACT HRS/WK= 02	(L=0,S=0,W=2)	CREDITS =02
Focus :	1	in exploring their aptitudes and		related field like
		ure, sketching ceramic work, phot		
Contents :	Courses That Ma	ay Be Offered From Time To Time		
	colour workshop	os		
Method :	Portfolio and Pro	oject Submission.		
Skill:	Students by them	selves explore the skills and appl	ication that they have lear	nt electives and
040.5		ferent subjects and studios.	· Constitution Brown	Literatura de la Constantina del Constantina de la Constantina del Constantina de la
Outcome:	Development of	creative process of ideas, theme	s for understanding, of arc	initecture, and desig



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	FIRST YEAR OF B.ARCH : SEMESTER II		
	ELATED STUDY PROGRAMME I CONTACT HRS=3 (L=0,S=3,W=0) CREDITS = 03 y and Documentation)		
Focus:	To enhance observation and visual perception; develop free hand drawing skills using different techniques, tools and media.		
Content:	Visit/stosite/s(preferably historical); sketching various natural and manmade objects and settings, visual representation through tools like pencils, chalk,charcoal,ink,oil paints,watercolours, etc.		
Skills:	Students enhance cultural influence and architecture language skills, like observation of foam, sketching, rendering, and free hand presentation drawings.		
Outcome:	The Student's work as a guided documentation may be published at Institution level after thorough detailing.		

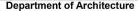
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AILED SYLLABUS AND TEACHING SCHEME EFFECTIVE FROM ACADEMIC, YEAR 2021-2

FACULTY OF ARCHITECTURE & PLANNING, SMAID

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ADDRESS OF COLLEGE / INSTITUTE : ADIT Campus, GIDC Phase IV, New Vallabh Vidhya Nagar



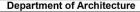
ARC2201 ARCHITECTURAL DESIGN STUDIO-II CONTACT HRS/WK=09 (L=0,S=9,W=0) CREDITS =09 Focus: Natural and manmade objects. Space/Form, Concept and the design process. Contents: Observing and analyzing design of natural objects and manmade objects including geometry pattern, texture, color composition, solid -void relationships etc. Structure and Composition of shapes and forms. Effects of colour and texture in modification of composition & its perception. Workshop on color and 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, color, material, texture, views. DesignProcess:Requirements/needs project,site-analysis,Activity Andotherareasand interrelationships, programming ordering mechanisms, abstract concepts. **Projects:** Small projects of low complexity with focus on above aspects. Skills: Students improve the skills of Architecture representation drawings, design level, and construction details. Outcome: Models; application of skills learnt in AGT course such as perspective, basic rendering techniques in architectural drawings , experience of concept to design development exercise in a simple project



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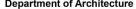
ARC2202 (L=1,S=0,W	ARCHITECTURAL GRAPHIC TECHNIQUES(AGT-II) CONTACT HRS/WK 03 =3) CREDITS =03	
Focus:	To develop skills for technical representation of architectural designs Projects.	
Method :	A series of exercises to be completed in the studio/classroom.	
Skills:	Development of Architectural Drafting and Drawing representation skills	
Outcome:	Student shall learn various rendering techniques and drawing representation skill	



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ARC 2203 B	SUILDING CONSTRUCTION- II CONTACT HRS/WK=03 ((L=2,S=0,W=1) CREDITS=03
Focus:	Advanced materials used in construction of Buildings
Focus : Content :	Unit 1 Metal-Ferrous Non–ferrous metals , definitions and basic understanding, uses of metals in construction industry, method of extracting and processing of metal to the market forms, Unit 2 Brick Masonry(continued)—Acute/obtuse angled joints, , compound wall construction, plan , elevation , section and details, uses of special joints, brick jail construction details Unit 3 Cavity Wall construction details, types and uses of cavity walls, cavity at openings, cavity construction for different heights, wall section explaining construction technique Unit 4 Arches – types and their construction , uses and support structures of arches, key elements and terms related to arch construction, construction technique, plan ,elevation ,section Unit 5 Simple wooden joinery used for openings, door frames, sill, lintel, paneled doors etc.
Method : Skills:	StudioExercisesandcasestudiesforabove.SiteVisittovariousffactories,processingsitesetc. To improve the skills and understanding of aspects such as structural systems, materials understanding, and application, construction details, planning, building standards and
Outcome:	specifications, different types of modern and traditional construction detailing with materials exposure and finishes. Understanding of materials and construction building elements, conventional practices etc.



DETAILED SYLLABUS AND TEACHING SCHEME EFFECTIVE FROM ACADEMIC, YEAR 2021-22
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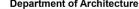




ARC2204 HI	STORY OF ARCH-II	CONTACT HRS/WK = 03	(L=2,S=0,W=1)	CREDITS = 03
Focus:	To familiarize students 19th Century A.D.	with architectural developmen	ts since about 11th ce	ntury AD to
Contents:	History of Islam: birth, socio-cultural and politic functions: mosque, tom Islamic Architecture: pri decoration, color, geome (B) ISLAMIC ARCHITECT The advent of Islam intarchitectural scene- a corresponding classificatestablishment of the Day Tughlaq, Sayyid and Lodl (C) MUGHAL ARCHITECT Mughals in India- polimovement - the evolution the Mughal rulers: Bab the decline of the Mughal UNIT II CROSS-CULTURA Cross-cultural impacts the Rajput, Sikh, Vijayanagar UNIT III COLONIAL ARCIProcess of Colonisation, UNIT IV MEDIEVAL PER	URE IN INDIA & ARCHITECTUR o the Indian subcontinent and ssessment of improvement tion of architecture - Islamic relhi Sultanate- the evolution ni Dynasties – tombs in Punjab- TURE tical and cultural history- s on of architecture and descrip- tur, Humayun, Akbar, Jahangir, al empire. L INFLUENCES hroughout India and secular a ra, Mysore, Madurai- essential a HITECTURE IN INDIA Colonial architecture in India- RIOD IN EUROPE ope after the Medieval perio	ic architecture as Rais of building types in procession of building types in procession of caravanserai, marked and techniques of constant techniques of constant such as the based on political structure in India: so of architecture under with the examples for every the six of Hindu-Mation of Mughal towns Shahjahan, Aurangaranchitecture of the prexamples.	chrases of forms and to the character of struction, factors of the alternate in the ources and impacts for the Slave, Khalji, ery period. Ituslim culture, Suff and gardens under the states and gardens under the states of the states of the states.
Method :		analytical exercises on built -fo	orm of various periods	to understand t he
Skills:	To improve students' sk designs providing for th design.	ills in Analysis, criticism, self-cr e due transfer of the skill to pr	oject work in Architec	ture and urban
Outcome:		dentify various architectural st c, sociological and historical co		nstruction



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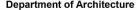




ARC 2205	APPLIED MECHANICS CONTACT HRS/WK=03 (L=2,S=0,W=1) CREDITS =03	3
Focus :	Introduction to the basic principles governing structural systems. Concept of direct force mechanism in structures, concept of resultant force, tension and compression. Equilibrium of forces, concept of structure and tie	of
Content:	Unit 1 Introduction: Introduction Fundamental principles of Engineering Mechanics, Newton's laws of motion, law of parallelogram of forces, principle of transmissibility, concept of rigid body, particle. Unit 2 Natural forms: Understanding Nature- a creative base for understanding structure, correlation between natural & manmade structure. Unit 3 Forces: Introduction to types of forces, Static loading, Time dependent loading, Impact loading, Cause & effect of various forces like Dead load, Imposed load, Wind load, Earthquake load, Hydrostatic load, erection force etc on building. Effect of physical form on load transfer i.e. Forces acting through point, distributed forces on line, & area. Force systems: Free body diagram, Resolution of forces into components, Types of force systems, concurrent, coplanar, non-concurrent etc. forces in plane & space. Calculation of resultant for coplanar parallel & coplanar concurrent force system, calculation of moment. Unit 4 Equilibrium: Introduction to Equilibrium, Conditions of equilibrium for the coplanar parallel & coplanar concurrent force system, Types of supports, Determinacy, & Stability, Basic behavior of elements in load transfer i.e. bending, torsion, shear, tension, compression etc. Unit 5 Tension and Compression Introduction as a flexural element, simply supported, overhanging & cantilever beams, determinacy, calculation of Reaction at supports for beam, Application. Introduction, Types of truss, Analysis of a plane truss. Use of graphical method. Introduction to space truss, Application. Concept of Deformable Bodies, Types of Stress (compressive, tensile, bending, shear) and strain (axial, shear, volumetric). Simple problems. Bending Moment and Shear Force Diagrams — Concept of Shear force and bending momer BMD and SFD for statically determinate beams subjected to combinations of concentrated and uniformly distributed load.	on -
Method :	Mainly lecture-based, illustrations & case studies. Type/options and Layout in the studio proje in progress.	 ect
Skills:	Students improve the skills of structure and mechanism analysis and practical knowledge in small-scale and large-scale building components.	ı
Outcome:	Student shall develop understanding of Stresses and Concepts of Load Transfer in different type of structures with the base of Applied Mechanics	



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ARC2206	CAD-I	CONTACT HRS/WK= 02	(L=1,S=0,W=1)	CREDITS =02
Focus:	Fundame	ntalsofComputerandgettingacquain	tedwithbasiccommandsfor	computerdrawings.
Focus: Contents:	Unit 1 Fundament of Window Unit 2 Creating Exproject Unit 3 Modifying practical product Unit 4 Drawing T	ntalsofComputer,terminology used, ws; Introduction toAutoCAD Drawings: Line, Circle, rectangle, Pol Drawings:Move,copy,offset,mirror,	basics of various operating ygon, Arc commands and u trim, extend etc. commands	systems;Terminology using them in practical and using them in
Method :	Practice in	n Computer Lab		
Skills:	Students i tools/met Interactive	mprove the skills for architectural g	or students. The structure o	
Outcome:	evaluate ar	nd train students to use computer nd present architectural ideas. To e in 2D drafting, 3D modeling, visual	quip the student with a ra	-

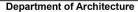


Skills:

Outcome:

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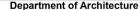


Contents: Un Int Un Ide Un spec	oduction to Local Vernacular Constructi t 2 tifying region t 3 fic construction elements		nstruction.
Int Un Ide Un spec Un	oduction to Local Vernacular Constructi t 2 tifying region t 3 fic construction elements t 4	tion Technique.	
Method : Cas	e Study, Documentation and Presentation		

Students improve their skills in design foam, structure, and local construction methods.

Develop sensitivity and awareness about traditional methods and materials of construction







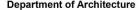
ARC 2208	WORKSHOP-II	CONTACT HRS/WK= 02	(L=0,S=0,W=2)	CREDITS =02
Focus :	To help students ex	xploring their aptitudes and in d	eveloping skills in any rela	ited field like
	· ·	, sketching ceramic work, photo		
Content :	Anumberofsubject	sshallbeoffereddependingonfac	ultyavailability.	
	WOODEN JOINERY	AND CARPENTRY		
Method :	Portfolio and Proje	ct Submission.		
Skills:	•	lves explore the skills and applic	ation that they have learr	nt AND
<u> </u>	- i	ent subjects and studios.		
Outcomes:	· ·	ative process of ideas, themes for	or understanding, of archi	tecture, and
	design.			



DETAILED SYLLABUS AND TEACHING SCHEME EFFECTIVE FROM ACADEMIC, YEAR 2021-22

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	SECOND YEAR OF B.Arch: SEMESTER III				
RC-2300 NGC	O II CONTACT HRS/W= 03	(L=0,S=0,W=3)	CREDITS = 03		
Focus:	Bringing Awareness of social issues ar	nd responsibility			
Contents:	itents: Students shall apply for 8 weeks of Part-time or 2 Weeks of full-time Work with a				
	Semi-Government / SOS of Any Corp	orate Sector / Non-Government	Organization from the		
	surrounding area.				
	List of NGO'S (References)				
	Backward class develop committee -	-Anand			
	Foundation for ecological security —	Anand			
	Rotary club Anand				
	Grafting better future social education				
	Gujarat sangeet natya akademi–Ana				
	Indian council for training and develo	•			
	Jivan Jyoti Gramin and shahri vikas s Mukta Arts –Anand	anstria - Arianu			
	JeevandeepSarvoday Centre, At.Kha	mhhat Dist Anand			
	Society For Indian Development, Anand				
	Annacharan education and charitable trust, DODGAM, Gujarat				
	All India Disaster Mitigation Institute, Ahmedabad				
	Center for Environment Education, A	hmedabad			
	Anusandhan (Environment, Urban Development.), Ahmedabad				
Method :	After the second-semester exam, One	month internship			
Metriou .	Portfolio and Presentation end of the	•			
Skills:	Students have the incredible o		ent various skills like,		
	communication, cultural learning	• • • • • • • • • • • • • • • • • • • •	•		
	punctuality, teamwork,marketing stra				
Outcomes:	Students will learn about the social p				
	Interpersonal skill development.				
	As a student when you work for an	NGO, it gives you an insight into	o developing various skill		
	communications.				







ARC 2301 A	ARCHITECTURE DESIGN STUDIO - III CONTACT HRS/WK =12 (L=0,S=12,W=0) CREDITS = 12
Focus:	Material and Structure as determinants of Architectural Form.
Contents:	Unit 1 Unit 2 Basic structural system in various materials (timber, mud, brick, Fabric etc.) Structure as a form given for various materials. Unit 3 Developing skills in manual presentation techniques, use of various media of presentation, Principles of 2-D& 3-D compositions of Design. Unit 4 Behavior and effects of colored compositions (enlargement, shrinkage of spaces, emphasis, warmth and coolness etc.). Rhythm, discord, Harmony, Golden Section. Unit 5 Design of elementary three dimensional and architectural spaces and their a) Study and analysis b) Presentation of Architectural Designs c) Block models for exercises in three-dimensional composition Unit 6 Elements of Space making like Floor, Wall, Door, Window, Column, Stairs, Roofs etc.
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 materials to make a structure. Studio project base model making exercises 3 dimension and explore materials and color
Skills :	This studio addresses spatial Composition, site constraints, various materials exposure, Architecture representation drawings and materials application, materials base, different construction techniques, selection and detailing of building materials. Thus developing skills for architectural design drawings through models, Site Visits, and case studies.
Outcome :	 The students shall learn and understand climate-responsive techniques in different materials innovatively architectural design, and skills develop in various aspects in concept ideas, designing, technical presentation drawings, and material properties and its construction details. Students gain knowledge of properties of various special materials and construction details.



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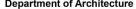
ARC 2302	HISTORY OF ARCH-III CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS = 03				
Focus :	Understand the evolution of architecture and its transformation in the contemporary times, both at the international end level well as at the national level.				
Contents:					
	UNIT I				
	Study of cutting-edge masters, responses to mechanization and new area conceptions, natural				
	structure and architectural machine				
	UNIT II				
	Frank Lloyd Wright, Le Corbusier's quest for ideal form and factors of a new architecture, Walter				
	Gropius and Bauhaus movement, Mies, minimalism and international style, Problem of Regional Identity - movements in Scandinavia and Japan, etc.				
	UNIT III				
	Study of second-era masters Kahn, Saarinen, Goff, Nervi, Johnson, etc. past due modern transformations, post - modernism, deconstruction, architectural philosophy, and works of Meier, Venturi, Tange, Isozaki, Graves, Gehry, Hadid, Foster, Piano, Rogers, etc. UNIT IV				
	Architectural tendencies in the east and south-east Asia; Japan & China, tropical architecture in				
	Singapore, Indonesia & Thailand, Architecture in SAARC nations with a unique emphasis on				
	Pakistan, Bangladesh, and Sri Lanka				
	UNIT V				
	Architectural traits in India, architectural developments post-independence, the primary era masters Correa, Doshi, Stein, Lauri Baker, Nari Gandhi, etc. the emergence of recent typologies inclusive of housing colonies, malls, airports, information technology parks, present-day practice				
Mathada .					
Method :	Lectures, Case-Studies, analytical exercises on built-forms of various periods to understand the				
Ckille:	architectural images of various times and places.				
Skills:	To improve skills and understanding of different styles of Architecture and Planning, Climate				
	change, social, economic, & geographical aspects, political aspects, Materials, Technology,				
Outosma	construction details, elements, movements, and timeframe.				
Outcome :	Understand the relationship between history of architecture and practical work.				
	Develop skills in written and graphic analysis of art works and buildings.				
	Compare, analyses and make critique of the relationship: built environment and the social,				
	political, economic & cultural formative				
	Students understand the history of building analysis that explodes during that era, use of				
	materials, large-scale structural systems, and construction techniques systems.				



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AR 2303 BU	JILDING CONSTRUCTION III CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS = 03
Focus:	Understanding basic Structural Systems, Structural Materials, Construction & erection process.
Contents:	Unit 1 Introduction New Materials and their use in Building Construction. Unit 2 Building Elements made out of wood, steel, PVC, aluminum etc.various types of doors and windows & Ventilation, including treatment of sills, lintels etc. / m. s. grill, various types of fittings & Hardware. Unit 3 Types and details of Paneled door shutters and Mosquito proof door shutter 1. Timber Panel Door 2. Timber Flush Door 3. Metal (Aluminum) Glazed Door Unit 4 Types of Windows / Ventilators and details of glazed window and ventilator shutters and frames. 1. Timber Casement Window 2. Metal (Aluminum) Window 3. Metal (steel) Casement Window Unit 5 Types of materials used in wall construction, slab, staircase and floor and flooring
Method :	Illustrated lectures, case studies of Traditional / Conventional practices. A number of studio Exercises for making drawings of typical details.
Skills:	To improve the skills and understanding of aspects such as structural systems, Materials understanding and application, construction details, planning, building standards and specifications, different types of modern and traditional construction detailing with materials exposure, and finishes.
Outcome :	This subject helps the students to understand and learn the various materials exposure and construction details in all types of openings. Ability to integrate knowledge of properties, characteristics and strength of materials and construction methods.



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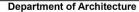


ARC-2304 S	Structures I	CONTACT HRS/WK = 03	(L=2,S=0,W=1)	CREDITS = 03
Focus :	Basic understa	nding of structural foam and sy	stems	
Contents:	Unit 1History Development vaults, flying thistory. Post Inconcrete- examinate of the concrete	of structural design in the presof monolithic, rock-cut structur uttresses, tents, mastered structured dustrial modular construction in ples of iconic projects. I properties of basic building mand strength of natural and manent and aggregate. I protect of forces and moments ents of structure and their behalfoundations are foundations and their reactions (and Shear force and bending mand overhang beams Definity and Moment of Inertia Definiter of Gravity(One and Two Diment of Inertia (parallel and perment of Inertia (para	and post industrial era es, tabulated construction ctures & bridges through of large span & suspension naterials anmade building materia vior ,Concept of Load beau only point and U.D.L.). moment Diagrams for Stion of Point of Contra flee nition mensional) rpendicular axis theorem	ancient & medieval on structures in steel and ls like stone, clay, brick, aring and Frame structure, simply supported beams, exure.
Method :	Mainly lecture is discussed.	-based, illustrations & case stud	lies. Type/options and La	yout in the studio project
Skills:	Students shal building comp	l develop understanding of sonents.	ructure with reference	to building materials and
Outcome:	acting on rigid Understand th Students unde which materia acting on stru	he course the students will have bodies and the structural prope interdependence of architect rstand and learn what is structured is to be constructed. Students leatures for buildings and other stand longitudinal loads, and least and longitudinal loads,	erties. ural form and structural sural Materials and elementerials and elementerials under under under urctures can be broadly of	system of a structure. Into inside the building and erstand types of loads classified as vertical loads,



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ARC-2305	CAD- II	CONTACT HRS/WK= 02	(L=1,S=0,W=1)	CREDITS =02
Focus :	Thorough a	oplication of knowledge of 2 D a	nd 3D drawings.	
Content :	Using layer Editing obje Unit 2 Inserting bl Attaching e Preparing layer Unit 3 Annotation Hatch, Supe Dimension Presentation Unit 4 Isometric v Introduction Editing and	vers and assigning objects properties manager ect properties ocks external references eyout and plotting; er hatch editing n & detail drawing preparation		
Method :	Practice in C	omputer Lab		
Skills:	1	ould enhance their skills in 2D presentation techniques.	and 3D drawing in AutoCA	D and apply them in th
Outcome :	Understand	uter as a tool to generate drawing CAD as a basic tool for Archith train students to use compu	tectural Design.	pols to explore, develor

evaluate and present architectural ideas. To equip the student with a range of digital tools and

The concepts of CAD drafting methods and techniques in 2D and 3D through various

techniques in 2D drafting, 3D modeling, visualization of projects.

architectural communications.



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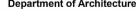
ARC-2306 C	limatology	CONTACT HRS/WK= 02	(L=1,S=0,W=1)	CREDITS =02
Focus:	Understandi	ng of Climate and its impact on	architectural design, fundar	mentals of climatology
	and environr	nental studies		
Content :	and environment of the street	mental studies constituent elements, Classification cro climate. mfort & principles of Thermal Desi Air movement & fenestration, so House Form & Settlement pattern	of tropical climatic zones. gn. llar orientation, Sun path par in various tropical climates; rams, etc.	ttern & shading vernacular
Method :	The concept	s shall be taught with the help of l	ectures, practical examples a	and lab exercises.
Skills:		the skills and understand elemen		
	aspect in the	design of spaces.		
Outcome:	1	the knowledge required for under e environmental processes which a	_	
	I morauma me	. environmental processes willen a	meet buildings, such as then	mai, lighting, etc.



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ARC-2307 V	Workshop-III	CONTACT HRS/WK= 02	(L=0,S=0,W=2)	CREDITS =02
Focus :	To help students in	n exploring their aptitudes an	d in developing skills in ar	ny related field like
	painting, sculpture,	sketching ceramic work, photo	ography etc.	
Contents :	A number of subject	s shall be offered depending o	n faculty availability.	
	METAL WORKSHOP			
Method :	Portfolio and Project			
Skills:		lves explore the skills and applent subjects and studios.	ication that they have learn	t and
Outcome :	Development of cr	eative process of ideas, the	mes for understanding, of	architecture, and
	design.			



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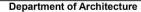


SECOND YEAR OF B.Arch: SEMESTER IV

ARC-2400	Related Study Program CONTACT HRS/WK= 03 (L=0S=3,W=0) CREDITS =03
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. for the purpose of designing in the physical context.
Skills:	Students improve the Skills will be developed for intervention which reflects context-responsive concepts and understanding of critical analysis of the built environment. Technicalskill improves in Architecture representation drawings, traditional construction details and house foam.
Outcome :	Related study programmer outcome Students learning and experience, observe and document traditional (and contemporary?) built environment and natural & formal responses at scale of dwelling, cluster of dwellings, settlements and institutions so as to understand relation of traditional and historical practices and architectural manifestation in a place (Learning's of the past knowledge system) Contextual study and observation skills help students in understanding relation between culture, tradition, construction and details of house form and other living spaces. They enhance their architectural drawing presentation and detailing through this study program.



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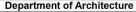
ARC-2401ARCHITECTURAL Design Studio IV (Contextual and Site Planning)

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CONTACT HE	RCHITECTURAL design Studio IV (Contextual and Site Planning) RS/WK = 12 (L=0,S=12,W=0) CREDITS = 12
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 program.
Skills :	Documentation & analysis of existing / traditional settlements; programmed and unprogrammed spaces; Full range of architectural graphic techniques and model making in various media must be applied.
Outcome :	Understanding the human and design in physical context (space, location, time). Understanding the context as surroundings containing tangible and intangible components, helps greatly in defining Architecture and design. Understanding of contexts plays great role in appropriate design evolution and development







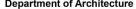
ARC-2402	History of Architecture - IV CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS = 03
Focus :	To acquaint the students with the development in the field of Town Planning/Urban Design / Settlement design
Contents:	UNIT I: History of Town Planning/Settlement design/Urban design. UNIT II: Theories and approaches. Examples of various historical experiments across the world. UNIT III: Developments in India from early times to the present day. Vedic Planning concept, Islamic planning, UNIT IV: western planning. Role of Sir Patrick Geddess & others in planning processes UNIT V: Contemporary practices-evolution of sustainable, smart, resilient cities Role of Urban laws in city making. Development plan & its procedure.
Method :	Lectures, Case-Studies, analytical exercises on built form to understand the townplanning images of various times and places
Skills:	To improve the skills and understanding to a comparative study of a Town type across cultures and time periods the student is able to arrive at the core understanding of the Type and its application in the design program.
Outcome:	The students might expand suitable capabilities of reading, writing, and expertise in the physical and aesthetic experience of town, material of observing geographical, geological, social, cultural, and political elements that influenced early society and its architecture. They may even recognize the usage of materials and structural/construction systems that are explored throughout that era.



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ARC-2403 E	Building Construction - IV CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS = 03
Focus :	Understanding of various building components, their place and composition within the systems, possibilities of different material use. Understanding principles & possibilities of various constructions Technology & their applications.
Content :	Unit 1 Building Components: - Floor and Floorings Unit 2 Staircase, Stairs, Steps, Ramps. Unit 3 Steel windows Unit 4 Wooden roof construction details Unit 5 Retaining walls, basement Unit 6 Compound wall/Gates
Method :	Market survey & Resource file to be maintained. Conventional practices, documentation. Case studies & Studio exercise
Skills:	Students improve the skills in building construction details of modern construction technique and traditional construction methods, and experiment types of materials used in differen construction techniques.
Outcomes:	The students are able to understand in detail the method of construction of various building components using steel, aluminum, and wood. Students understand the materials with their properties, environmental impact and relationship with architectural design and building construction. Students learn different types of materials used in construction methods from retaining walls to parapet walls (Traditional and modern construction details) Increase the technical construction skills (List of construction details):- Floor and Floorings Staircase, Stairs, Steps, Ramps, Steel windows, Wooden roof construction details, Retaining

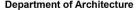
walls, basement, and Compound wall/Gates



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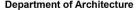
ARC-2404 S	TRUCTURES-II CONTACT HRS/WK= 03 (L=2,S=0,W=1) CREDITS =03
Focus :	Understanding of structure system and various load distribution Pattern and calculation method
Contents :	Unit 1
	Architectural considerations in material selection for structural use. Concept of strength elastic and plastic material. Unit 2
	Concept different mechanical properties of material (tensile, compressive, flexure, toughness, and malleability, fatigue with definition) Unit 3
	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 Unit 4
	Analysis of fixed Beam-numerical (Central Point load and Uniformly distributed load with Derivation) only using formula and shear force & Bending moment diagram) Analysis of Continuous Beam (Definition of Fixed end moment, carry over moment, Relative
	stiffness and Distribution factors,numerical for all end with fixity) 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) Unit 5
	Types of Arch, and analysis of three hinged parabolic Arch (only reparation 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 the studio project is discussed.
Skills:	Logical structure design skills in building.
Outcome:	Basic knowledge of students about the various types of forces, stress, and their concept, and analysis learning through structure diagrams and the analysis of a load distribution pattern in buildings, and then simple numerical calculations and models.



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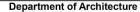


ARC-2405 D	Digital Graphics and Art CONTACT HRS/WK= 02 (L=0,S=0,W=2) CREDITS =02
Focus :	Various software learning for designing & presentations, for Building modeling, poster, visiting card, report front page and collage to visualization software applied to architectural design. Learning software (AutoCAD 3D, Sketch Up and Photoshop)
Contents:	Unit 1 Fundamentals of software and its use in designing and making presentation Unit 2 Learning and working with basic tools and techniques, Photoshop. Unit 3. Corel draw Unit 4 AutoCAD 3D
Method : Skills:	Lecture and practice Students improve their software skills and apply various concepts in the Academic and professional fields.
Outcome:	The students benefit by learning software that helps them to better visualize complicated forms and also helps in producing photo-realistic images of those 3D forms. The students benefit by learning software that helps them with digital drafting in AutoCAD, final sheets editing and poster design in Photoshop, and building visualization in 3d in Sketch Up.



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ARC-2406 C	ARC-2406 Conservation CONTACT HRS/WK= 02 (L=1,S=0,W=1) CREDITS =0.2			
Focus :	Conservation of historical monuments, buildings and sites.			
Contents :	Unit 1 Architectural Conservation: Need and Importance of conservation of historical monuments, buildings. Unit 2			
	Urban Conservation: Identification of areas for conservation. Unit 3			
	Approaches and techniques. Landscaping, maintenance and management of conserved areas or buildings. Unit 4			
	Case studies from India and abroad. Restoration of old buildings - materials used techniques and equipment. Deterioration and preventive measures.			
Method:	Case studies, illustrations, assignments & presentation			
Skills:	Students learn practical strategies and skills needed for solving design project problems about			
	specific conservation policies such as adaptive reuse, rehabilitation, redesign in a historic			
	context, reconstruction, documentationetc.			
Outcomes:	The students understood the role of Urban Conservation discipline, and its role in understanding			
	and interpreting a city. Various reading methods were explored, to understand the historical as			
	as well as the present urban form. They also looked at addressing Architectural Conservation			
	In the second control of the second control			

issues in terms of awareness creation as well as with possible ways to address them.



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ARC-2407	Workshop - IV CONTACT HRS/V	VK= 02	(L=0,S=0,W=2)	CREDITS =02
Focus :	To help students in exploring their aptit	udes and in de	veloping skills in any	related field like
	painting, sculpture, sketching ceramic wor	k, photography	etc.	
Contents :	A number of subjects shall be offered depending on faculty availability.			
	CLAY AND CERAMIC WORKSHOP			
Method :	Portfolio and Project Submission.			
Skills:	Students by themselves explore the skills a	nd application t	hat they have learnt a	and
	Applied in the different subjects and studion	os.		
Outcome :	Development of creative process of ide	as, themes for	understanding, of a	architecture, and
	design.			



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THIRD YEAR OF B.Arch : SEMESTER V			
ARC-2501 A	RCHITECTURAL DESIGN STUDIO V (Institutional) CONTACT HRS/WK = 12		
(L=0,S=12,W=0			
Focus :	Understanding the character of Institution.		
0 1 1	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.		
BA - 41 1			
Method :	Design of an Institution of medium level complexity with a mix of functions.		
	Analytical 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 programs in		
	part or full.		
Skills:	Develop Understanding characteristics of Institution.		
Outcomes:	Students should demonstrate their understanding of Institutional building and the		
	coordination thereof through a comprehensive resolution of the conceptualization, design and		

execution of a building.

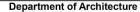
Charutar Vidya Mandal University



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ARC-2502 LANDSCAPE CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS =03 **Focus** Principles of Landscape design, its techniques and application. Understanding Ecology, Ecosystem, environmental conservation Content: Unit 1 Ecology, Environment, Components, Ecosystem at various levels, conservation of natural resources, rainwater harvesting. Unit 2 Elements of Landscape: Landforms, plant materials, water, rocks, lighting etc. Unit 3 Types of Soils, plant materials (trees, shrubs, ground covers, creepers, flowering and non-flowering rocks and stones, water bodies. Surfacing Materials, landforms, man made elements. Unit 4 Historical and contemporary attitudes to landscape in Indian and other contexts. Principles of landscape design :surfacing, enclosure vistas, visual corridor, composition of plant and other material, etc. Unit 5 Preparing Landscape design presentation drawing (using symbols etc.)

Method:	Studio Exercise, Site Visit, Seminar, Presentation etc. Design assignment may be
	done as part of a Studio project.
Skills :	Develop the ability to analyze ecologic & Landscape.
Outcome:	Students should develop the ability to analyze ecological and geomorphologic
	characteristics of a site; use site analysis information to propose appropriate site
	planning and landscape design.



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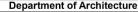
ARC-2503 E CREDITS =0	BUILDING CONSTRUCTION V (SERVICES)CONTACT HRS/WK = 03 (L=2,S=0,W=1)
Focus :	(A) Building Electrical Services, Communication Systems and Air conditioning.(B) Mechanical Circulation, automated system, artificial water bodies (SWIMMING POOLS).
Content:	Unit 1 (A) Electrical Services - Power Connection, A.C. & D.C., conduits, distribution board and fuses, Unit 2 (B) Wiring System (concealed & open) fixtures, design of layout and symbols for representation. Communication systems (telephone, fax, EPABX etc.) and their layouts and connections. Unit 3 (C) 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. Unit 4 (D) Automated systems: Alarm systems, automatic lighting and A.C. systems, door closing / opening etc. Unit 5 (E) Swimming pools, garden pools, fountains system.
Method :	Mainly lecture-based, illustrations & case studies. Layout, installation in studio project is discussed.
Skills:	Building Electrical Services, Communication Systems and Air conditioning.
Outcomes:	Ability to work out electrical networks for a simple building, determine general lighting and acoustic and Air-conditioning requirements and performance for a space.



DETAILED SYLLABUS AND TEACHING SCHEME EFFECTIVE FROM ACADEMIC, YEAR 2021-22

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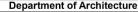
ARC-2504	BUILDING ECONOMICS CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS =03			
Focus:	Understanding economic process in society and the economics of building housing			
	etc.			
Content:	Problem of economics, Market economy, Wants vs. Means			
Content.	Unit 1 Basic concepts of the economics, demand and supply economic cycle, Unit 2			
	different types of economics, traditional and modern approaches. Unit 3			
	Production process, need-demand and supply, economics of scale, Forecasting demand. Economics of building industry,			
	Unit 4			
	National Income & types			
	Unit 5			
	Housing markets, Land Markets, concept of affordability, invisible law theory, price control.			
Method:	Assignments, Article presentation			
Skills:	Develop basic understanding of Economics & its relative measures.			
Outcome:	Ability to understand basic economic concepts and learn their applications in Architecture.			



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ARC-2505 I	DESIGN SEMINAR CONTACT HRS/WK = 03 (L=0,S=3,W=0) CREDITS =03			
Focus:	Theory, techniques and issues in design of residential areas.			
Focus: Contents:	Unit 1 Definition and scope of Housing, residential areas as a part of urban areas. Unit 2 Structure and elements of Residential Areas - Built-form, Open spaces and Circulation, Infrastructure & Amenities Hierarchy of linkages, Unit 3 Concepts of density - gross density, net residential density, areas per person. Unit 4 Building Typologies and forms, relationship of built form density, F.S.I. etc. Unit 5 Theories & approaches to residential area, design issues in Housing.			
Method:	Basic information to be in the form of lectures with case studies and illustrations. Students are to examine views related to housing design through assignments concluding with a seminar presentation.			
Skills:	Develop an understanding of the scope of residential housing & its needs.			
Outcome:	Ability to source information on a chosen topic, clearly understand, collate, analyze,			
	reflect upon it by means of a strategic discussion within the research group synthesizing research outcomes in seminar presentation using multimedia techniques.			







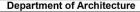
ARC-2506	NPTEL COURSE	CONTACT HRS/WK = 02	(L=0,S=0,W=2)	CREDITS =02
Focus:	To help students choice.	s in exploring their aptitudes	and in developing sk	ills in fields of their
Contents:	Through NPTEL	Programme		
Method:	As per NPTEL Co	urse		
Skills	As per the cours			



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ARC-2507	Green Building (GRIHA) CONTACT HRS/WK = 02 (L=0,S=0,W=2) CREDITS =02
Focus:	Getting acquainted with green concepts in general and knowing design strategies for high performance green/energy efficient buildings/sites
Contents:	for high performance green/energy efficient buildings/sites Unit 1 Introduction to sustainability, Green buildings & intelligent buildings, impart of building construction/industry on environment, Unit 2 Methods and tools of building assessment, the green building process, Unit 3 green rating systems and documentation, site and landscape strategies, building energy system strategies, Unit 4 material selection strategies, Indoor environmental quality, carbon accounting, green building codes; energy management systems
Method:	Theory, case studies and analysis
Skills	Learn green rating concepts & various rating systems.
Outcomes:	Students should be able to conduct preliminary resource audits, understand sustainable and resource efficient integration systems and services, prepare green rating checklists and relevant documentation for projects.



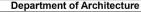
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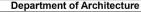
ARC-2508	Research Methodology - I CONTACT HRS/WK = 02 (L=0,S=0,W=2) CREDITS = 02
Focus:	Understanding the methodological approach to carry out a research based program in order to design an architectural project involving a set of complex issues.
Contents:	Unit 1 Nature and function of research, scientific research, meaning of research in the field of architectural design. Unit 2 Pure and applied research. Stages of research and design. Unit 3 Design and research methodology Techniques of data collection Forms of research reporting, structure of a report Writing skills. Unit 4 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.
Skills	Develop skill about how to start any research & its methodology.
Outcomes:	



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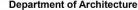
THIRD YEAR OF B.Arch : SEMESTER VI			
ARC- 2601 A	ARC- 2601 ARCHITECTURAL DESIGN STUDIO - VI (Working Drawing)		
CONTACT HRS	` ' '		
Focus :	Architectural Detailing And Execution Drawings.		
Contents:	Execution drawing systems and methods. Trade literature, detailing methods, architectural working drawing. 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.		
Methods :	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects		
Skills	Architectural Detailing And Execution Drawings.		
Outcomes:	Ability to organize building design information in a working drawing format suitable for various purposes related to the execution of the project along with an ability to read building working drawings to extract specific information.		



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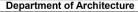
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ARC- 2603 B	UILDING CONSTRUCTION CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS =03			
Focus:	Understanding the construction process of Interior Construction and material use.			
Content :	Unit 1 Interior Construction - Partitions / Paneling Unit 2 False Ceilings Unit 3 Elevators, Escalators Unit 4 Cabinets and Furniture &Kitchen platform Unit 5 Internal/External finishes Glazing			
Method:	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects			
Skills	Develop the Construction process of Interior Construction and material use.			
Outcomes:	Understanding of concepts taught in the semester through simple numerical calculations and models			



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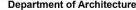




ARC- 2604 A	COUSTICS	CONTACT HRS/WK	= 03	(L=2,S=0,W=1)	CREDITS =03
Focus:	Understandin functional spa	g sound control as	an important	element in creat	ting comfortable
Content:	UNIT 1: Sound -Prop absorbing ma UNIT 2: Reverberation UNIT 3: Acoustical red UNIT 4: Understandin Acoustical red Design. UNIT 5: Noise Control requirements	erties of Sound , terials and sound pron, Reverberation time quirement of various g Auditorium design quirements of a good : Means and meas , constructional detail Noise Control	oof construction for speech an building type. A defects, w defects, w defects and a defects w	n. d music and its cal acoustics and Build ays of overcoming esign. Factors affe ol, noise insulation	culation. ing Materials. g these defects. ecting Auditorium
Method :		se study, sketchir study), market sur	•	• •	•
	projects				
Skills	<u> </u>	and execution.			
Outcomes:	Ability to work	cout acoustic require	ments and perf	ormance for a spac	ce.







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ARC- 2605 A	ADVANCED STRUCTURES CONTACT HRS/WK = 03 (L=2,S=0,W=1)
Focus:	Understanding Design and Detailing of the Steel Structures.
Content:	Unit 1 Understanding types of joints in steel structures, riveted, welded and bolted joints Types of steel sections and their properties. Unit 2 Use Of code of special practice for Steel members (Indian Standards) Unit 3 Introduction to structural steel Rolled steel sections, Criteria for selection of steel sections for design. Unit 4 Design and Detailing of a steel structure. Analysis of Tension members, compression members & flexural members. Concept of built up beams and columns – recommended uses. Concept of lacings, battening & importance of bracings. Unit 5 Introduction and analysis of footings for steel columns. Conceptual study of general connections – Beam to beam connections – Beam to column connections – column to foundation connection.
Method :	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects
Skills	Drafting, Detailing & its application.
Outcomes:	Ability to configure the service core and external building skin using appropriate materials and building technologies available in the industry with an understanding of energy efficient, time-saving, precision-oriented approaches to quality

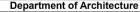
construction.



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ARC- 2606	REVIT/RHINO CONTACT HRS/WK = 02 (L=0,S=0,W=2) CREDITS =02
Focus :	Advanced proficiency in architectural office software; transposing textual, numerical and graphic information across software platforms and devices to describe concepts holistically.
Content:	Unit 1 Isometric views, perspectives, manipulation of camera angles, viewpoints, etc. Unit 2 Rendering 3D views using material palettes, colors, textures, shades and shadows. Unit 3 Inserting objects from digital libraries and other sources, using software such as 3DS Max. Unit 4 3D animation, walk-through sequences, superimposing animated videos over base images. Data-base management: Information filing and profiling, Technical Record-keeping and document transmission.
Method :	Lah Rasad learning
Skills	Lab Based learning Software Skills.
Outcomes:	Ability to make photorealistic imagery of architectural objects with 3D CAD software through rendered perspective and walk-through presentations. Basic programming and scripting for architectural applications will be introduced.



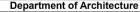
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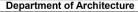
	URNITURE DESIGN CONTACT HRS/WK = 02 (L=0,S=0,W=2)					
CREDITS =02	•					
Focus :	Understanding Ergonomics as a scientific base to develop comfort criteria for					
0 1 1	human activity specifically in furniture design. Unit 1					
Content :	Ergonomics-its basic theory and relationship with human comfort criteria, Unit 2 Furniture Design awareness ergonomics principle in furniture design. Unit 3					
	Analysis of elements of furniture design in residential interior. Unit 4					
	Designing furniture including storage units, sitting elements etc.					
Method :	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects					
Skills	Modeling and Designing skills					
Outcomes:	Ability to relate the history of furniture and design.					
	,					



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ARC- 2608 RE	ESEARCH METHODOLOGY - II CONTACT HRS/WK = 02 (L=0,S=0,W=2) CREDITS =02
Focus:	Understanding the methodological approach to carry out a research based program in order to design an architectural project involving a set of complex issues.
Content:	Unit 1 Nature and function of research, scientific research, meaning of research in the field of architectural design. Unit 2 Pure and applied research. Unit 3 Stages of research and design; design and research methodology Techniques of data collection Forms of research reporting. Unit 4 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.
Skills:	Research and Report Writing Skills.
Outcomes:	Ability to independently handle an Architectural Design Project, research the requirements of a project, Prepare a brief, try alternative approaches/ concepts, and evaluate them on way to make a final comprehensive proposition.



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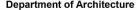




FOURTH YEAR OF B.Arch : SEMESTER VII				
	CHITECTURAL DESIGN STUDIO VII (office Training)			
CONTACT HRS	S/WK =35-40 (L=0,S=36,W=0) CREDITS = 24			
Focus :	To make students aware of and to inculcate a sense of appreciation in all the operations that take place- right from the preliminary sketch design 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. 			
Learning Outcomes	Students must demonstrate an understanding of: i. The design philosophy, or vision of the architectural office and its implementation ii. How the architectural design process evolves when structural and service issues are Integrated to create the final product based on the projects handled by the student. iii. How drawings are used at site and an insight into the relationship between the site and the office based on the projects handled by the student.			
Methods:	A student shall work in a well-established private architect's office, or government,			
	semi – government office related to architectural work.			









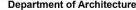
(I = 0 S= 0 W= 6) CREDITS = 06
Contents : Introduction to basic skills relevant to the practice of professional journalism.
Learning Outcomes Ability to develop counseling skills, interpersonal ability and communication skills in areas relating to architecture projects. Skill Develop skills relevant to the practice of professional journalism.



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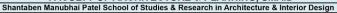


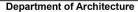


	FOURTH YEAR OF B.Arch : SEMESTER VIII
ARC-2801 AF	RCHITECTURAL DESIGN STUDIO VIII (Housing) CONTACT HRS/WK = 15
	0,S=15,W=0)
Focus :	Housing Design.
Contents:	 Study of Housing designs & urban neighborhoods to understand the nature and character of user groups, historical development and future growth 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.
Project :	Housing design for a rapidly urbanizing settlement in the vicinity or a sector of a large urban area.
Learning	Ability to identify user needs of housing and translate them into a program and
Outcomes:	thereafter use the program to manifest them in a design in terms of space, materials
Skill :	and construction methodology that is appropriate in a particular context.
SKIII : 	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.
	environmental, economic and political issues in the shaping of settlements.



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	ARC-2802 Environmental & Ecology in Architecture CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS = 03					
Focus:	To make the students understand the basic concepts of ecology, Urban Ecology, natural systems and environment.					
Contents:	Unit 1 Introduction to Urban Ecosystems. Basis of environmental science. Ecology, Ecosystems, Habitat, Unit 2 Structure of the ecosystem, major ecosystems, productivity of ecosystems adaptation. Unit 3 Flow of energy, food chain, ecological pyramids, predation, regulatory forces. Components of the natural and built environment. Unit 4 Different types of life supporting services provided by nature. General concept of urban ecological planning. Impact of urbanization and industrialization on nature. Resilience and Biodiversity, resources planning and climate resilient urban development. Unit 5 Examination of critical issues underlying the current and future environmental problems. Human impact on the environment. Modification of the natural environment – Current conditions of natural resources like land, water, air. Over exploitation of natural resources, agriculture, fishing, mineral resources, energy resources, forest wealth etc.					
Project :	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects					
Learning Outcomes:	Classroom lecture based study					
Skill :	Awareness of a wide range of environmental concerns and ability to act at their own					

level to protect the environment we all live in.



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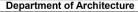
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ARC-2803 A	ADVANCED CONSTRUCTION TECHNIQUES CONTACT HRS/WK = 03 (L=2,S=0,W=1) CREDITS = 03				
Focus:	(A) Understanding construction of complicated buildings and structures. (B) Techniques for planning and implementation of construction projects				
Content:	(A) CONSTRUCTION TECHNOLOGY Geodesic forms. Shell structures. Long span structures / Lightweight 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 Skills:	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects Develop skill howsocialdimensionsplayanimportantroleinshapingBuilt Environment				
Learning Outcomes	 &awarenesstowardsthePsychologicalresponses. Analyses various approaches to construction in relation to their historical and cultural context. Evaluate the relationship between construction and design through a theoretical framework. Carry out research into construction and construction practices through personally guided research. 				





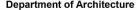




ARC-2804	PROJECT MANAGEMENT CONTACT HRS/WK = 03				
	(L=2,S=0,W=1) CREDITS = 03				
Focus:	Techniques for planning and implementation of construction projects.				
Contents:	Unit 1 Nature of construction projects, need for proper planning and Management Processes and Equipment used. Unit 2 Techniques for scheduling: bar charts, Network diagram, project Evaluation and				
	Review Techniques, Critical path Method. Unit 3				
	Practical implementation and application of PERT and CPM to typical construction projects. Unit 4				
	Maintenance of records, bills and method of making payments. Unit 5				
Method :	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects				
Skills :	Students learn Techniques for planning and implementation of construction projects.				
Learning Outcomes	Ability to use project management skill and quantitative methods in project definition, administration of contracts, billing and verification, monitoring quality at site and participating in preparation of Detailed Project Report.				









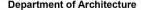
ARC-2805	BIM	CONTACT HRS/WK	= 03	(L=2,S=0,W=1)	CREDITS = 03	
Focus :	Building	Building information modeling in architecture				
Focus : Contents:	Unit 1 Lab ba approp Unit 2 BIM fo Unit 3	ised course to build comoriate Digital software and	prehensive d Media. tion.	e Building Information	n Models (BIM) using	
Learning Outcomes	Ability t	to use & understand Buil	lding inforn	nation modeling.		
Skills	Develo	p skill on Building inform	ation mod	eling in architecture.		



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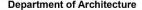
ARC-2806 (L=2,S=0,W=1	EARTHQUAKE RESISTANT ARCHITECTURE CONTACT HRS/WK = 03 CREDITS = 03
Focus:	Understanding of structure form & Structural system, Material and Construction Techniques for seismic resistance architecture.
Contents:	Unit 1 Fundamentals of Earthquake and the basic terminology. Unit 2 Historical experience; Site Planning and Performance of Ground and Buildings; Seismic codes and building configuration. Unit 3 Seismic design and detailing of non-engineered construction. Unit 4 Seismic design and detailing of Reinforced Concrete and steel buildings; Design of non-structural. Unit 5 Elements of architectural design for Seismic resistance.
Learning Outcomes:	To demonstrate an understanding of concepts taught during the semester through simple calculations and models.
Skills	Develop Understanding of structure form & Structural system, Material and Construction Techniques for seismic resistance architecture.
Methods	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects



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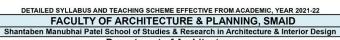
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FIFTH YEAR OF B.Arch : SEMESTER IX					
ARC-2901 ARCHITECTURAL DESIGN STUDIO IX CONTACT HRS/WK = 18					
	(L=0,S=18,W=0) CREDITS = 18				
Focus :	To evaluate the ability of students to deal with and resolve complex issues into a valid expression of architectural character and contextually. Focus is on the architecture for the				
	collective design				
	of Settlement level Institution/Housing/Amenity.				
 Architecture for the Public Domain is emphasized through detailed an of a town/ or Parts. Design resolution for a project in the urban fabric selected within a general project in the u					
	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.				
Methods:	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects				
Learning	Ability to comprehend architecture at the urban scale, understand the problematic				
Outcomes	issues in a given urban area after a methodical analysis and contemplate possible urban design solutions that will guide built-form and open-space morphology.				





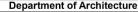




	AGRO ARCHITECTURE	(CONTACT HRS/WK = 03	(L=2,S=0,W=1)
CREDITS =	03		
Focus:			
Contents:			
Projects :			
Method:			
Outcome:			



DETAILED SYLLABUS AND TEACHING SCHEME EFFECTIVE FROM ACADEMIC, YEAR 2021-22
FACULTY OF ARCHITECTURE & PLANNING, SMAID
Shantaben Manubhai Patel School of Studies & Research in Architecture & Interior Design





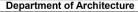
ARC-2903	PROFESSIONAL PRACTICE CONTACT HRS/WK = 03 (L=2,S=0,W=1))				
CREDITS =					
Focus:	Creating an awareness of the role & responsibilities of an architect.				
Contents:	Unit 1 Role of an architect, responsibilities and liabilities with respect to client and society. Duties, Powers and functions. 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. Unit 2 Professional work and scale of fees, mode of working and payments, phasing of projects etc. Unit 3 Architectural Competitions- need, procedures for conducting, rules and regulations etc. Unit 4 Arbitration - settling of disputes through arbitration, the Arbitration Act, procedures and method of working. Role of an architect as an Arbitrator. Unit 5 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.				
Learning Outcome:	Familiarity with the procedures for tendering, arbitration, valuation of works and real estate and aspects of international practice. Proficiency in preparation of projects proposals and presentations for procuring projects.				
Skill :	Develop awareness of the role & responsibilities of an architect.				
Methods:	Lecture, case study, sketching, drafting, field trip (Material study and construction study), market survey, measure drawing, technical drafting and projects				



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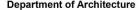
ARC-2904	RESEARCH PROJECT CONTACT HRS/WK = 03 (L=1,S=0,W=2)					
CREDITS =	03					
Focus :	Understanding the methodological approach to carry out a research based program					
	in order to Design an architectural project involving a set of complex issues.					
Contents:						
	Unit 1					
	Nature and function of research, scientific research, meaning of research in the field					
	of architectural design.					
	Unit 2					
	Pure and applied research, Stages of research and design; design and research					
	methodology					
	Unit 3					
	Techniques of data collection, Forms of research reporting, structure of a report. Unit 4					
	Writing skills, presentation aids					
	Unit 5					
	Use of primary and secondary references, bibliography, notations, cross reference					
	etc.					
	Nature of an undergraduate thesis, its structure and other requirements.					
	T					
Learning	The student will develop the skill to identify, decipher and interpret issues releting to prohite turn based on research anguir, methods.					
Outcomes .	relating to architecture based on research enquiry methods. • The student will gain knowledge of different methods of conducting research					
-	I he student will gain knowledge of different methods of conducting research and research writing.					
Method :	The course must be conducted as a mix of lectures/discussions with a number of					
Metriou .	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.					
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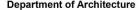
	SUSTAINABLE CITIES CONTACT HRS/WK = 03 (L=2,S=0,W=1)				
CREDITS = 0	3				
Focus:	Focus on Sustainability concepts & various Theories.				
Contents:	Unit 1				
	Introduction to Green concepts.				
	Unit 2				
	Depleting resources and climate change.				
	Unit 3				
	Sustainable site selection and development of sustainable building materials and				
	technologies.				
	Unit 4				
	Low impact construction – Biomimicry, Dimensions of sustainable, sustainable				
	community.				
	Unit 5				
	Case studies of eco- cities/ communities.				
Skill	Study Global scenario of Sustainability concepts & various Theories.				
Methods	Lecture, PPT, Domestic & Global case study .				
Learning	By the end of the course students should be aware of basic components of sustainable				
Outcomes:	city development.				
Cuttonies.	сиу аечеюртети.				



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	FIFTH YEAR OF B.ARCH : SEMESTER X					
	ARCHITECTURAL DESIGN STUDIO X (THESIS) CONTACT HRS/WK = 18					
_	CREDITS = 18					
Focus : Contents:	Inquiry by Design / Research The Thesis is intended to evaluate the student's capacity and maturity in the					
Contents.	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 a detailed program.					
	- Design or Research on the basis of studies carried out in Part A.					
Learning Outcomes:	Ability to independently handle an Architectural Design Project, research the					
Outcomes:	requirements of a project, Prepare a brief, try alternative approaches/ concepts, and evaluate them on way to make a final comprehensive proposition.					



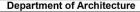
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Department of Architecture

ADDRESS OF COLLEGE / INSTITUTE : ADIT Campus, GIDC Phase IV, New Vallabh Vidhya Nagar

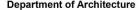




ARC-21002 CREDITS = 0	ENTREPRENEURSHIP CONTACT HRS/WK = 03 (L=2,S=0,W=1)			
Focus :	Understanding the value of entrepreneurship in architecture and the design professions.			
Method:	Lecture, case study, sketching, drafting, field trip (Material study and construction			
Ckille	study), market survey, measure drawing, technical drafting and projects			
Skills:	Develop skill on Understanding the value of entrepreneurship in architecture and the design professions.			
Learning	Develop awareness about entrepreneurship and successful entrepreneurs.			
Outcomes:	 Develop an entrepreneurial mind-set by learning key skills such as design, personal selling, and communication. 			









ARC-21003 CREDITS = 0	WEBSITE DESIGN	(CONTACT	HRS/WK	= 03)	(L=1,S=0,W=2)
Focus :		ing			
CREDITS = 0		ing			
Method:	Lecture,case study.				
Skills:	Develop a basic Ideas abo	ut website des	signing		









ARC-21004	PRODUCT DESIGN	CONTACT HRS/WK	= 06	(L=0,S=6,W=0)
CREDITS = 0	6			
Focus :	Creation and design of products for industry. Understanding of the initial process of innovation in all of its facets: creative, aesthetic, social and technological.			
Contents:	Unit 1 Graphic design elements, punit 2 Unit Concept of form and Processes of Manufacture. Unit 3 Use of Computers for Form Unit 4 Detailing and manufacture refinement and detailing; processes.	rinciples and applications. space in product design; Re generation; Creativity technic e; exploratory mockup mode product design prototyping a	lating Form t	o Materials and ot development, in manufacturing
Method:	study), market survey, me	ching, drafting, field trip (Mat asure drawing, technical draft	fting and pro	ects
Skills:	innovation.	ıcts for industry. Understan		itial process of
Learning Outcomes:	Understand and exconcepts.Understand the con	product development process plain the concept of Industri cept of Design for manufactur gal factors, social issues, e	al design an	oly.

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