

TEACHING SCHEME & EXAMINATION

COMMON CURRICULUM OUTLINE FOR B. ARCH. (ARCHITECTURE, INTERIOR DESIGN, AND BUILDING CONSTRUCTION TECHNOLOGY)

FIRST YEAR

FIRST SEMESTER

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	FT	Total				
AR-101	English for communication I	1	-	-	-	1	-	-	50	50
AR-102	Introduction to Architecture I	1	-	-	-	1	-	-	50	50
AR-103	Basic Design Studio – I	-	4	-	4	8	-	-	300	300
AR-104	Architectural Graphics – I	-	4	2	2	8	-	-	400	400
AR-105	Construction Techniques – I	2	4	-	-	6	100	-	100	200
AR-106	Structures – I	2	-	-	-	2	50	-	50	100
AR-107	History of Architecture – I	2	-	-	-	2	50	-	50	100
AR-108*	Elective – I	-	-	2	-	2	-	-	-	-
	TOTAL	8	12	4	6	30	200	-	1000	1200

- Electives are treated as AUDIT SUBJECT of 100 marks each, with 50% required for passing. The marks obtained in Elective subject shall not be added towards aggregate total of the mark sheet.

FIRST YEAR

SECOND SEMESTER

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	F T	Total				
AR-201	English for communication II	1	-	-	-	1	-	-	50	50
AR-202	Introduction to Architecture II	1	-	-	-	1	-	-	50	50
AR-203	Basic design Studio – II	-	4	-	4	8	-	-	300	300
AR-204	Architectural Graphics – II	-	4	2	2	8	-	-	400	400
AR-205	Construction Techniques – II	2	4	-	-	6	100	-	100	200
AR-206	Structures – II	2	-	-	-	2	50	-	50	100
AR-207	History of Architecture – II	2	-	-	-	2	50	-	50	100
AR-208*	Elective – II	-	-	4	-	2	-	-	-	-
	TOTAL	8	12	6	6	30	200	-	1000	1200

- Electives are treated as AUDIT SUBJECT of 100 marks each, with 50% required for passing. The marks obtained in Elective subject shall not be added towards aggregate total of the mark sheet.

**SECOND YEAR
THIRD SEMESTER**

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	F T	Total				
AR-301	Design Studio -III	-	12	-	-	12	-	-	500	500
AR-302	Construction Techniques III	2	6	-	-	8	100	-	100	200
AR-303	Structure-III	2	-	-	-	2	50	-	50	100
AR-304	History of Architecture - III	2	-	-	-	2	50	-	50	100
AR-305*	Elective – III	-	-	2	-	2	-	-	-	-
AR-306	Environmental Science – I (Climatology, Lighting and Acoustics)	2	-	-	-	2	50	-	50	100
AR-307	Surveying and Leveling	2	-	-	-	2	50	-	50	100
AR-308	Field Trips & M.D. Camps I	-	-	-	-	-	-	-	100	100
	TOTAL	10	18	2	-	30	300	-	900	1200

- Electives are treated as AUDIT SUBJECT of 100 marks each, with 50% required for passing. The marks obtained in Elective subject shall not be added towards aggregate total of the mark sheet.

**SECOND YEAR
FOURTH SEMESTER**

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	F T	Total				
AR-401	Design Studio-IV	-	10	-	2	12	-	-	500	500
AR-402	Construction Techniques IV	4	4	-	-	8	100	-	100	200
AR-403	Structure – IV	2	-	-	-	2	50	-	50	100
AR-404	History of Architecture-IV	2	-	-	-	2	50	-	50	100
AR-405*	Elective – IV	2	-	-	-	2	-	-	-	-
AR-406	Building Services I	1	1	-	-	2	50	-	50	100
AR-407	Estimating, Costing & Specifications	2	-	-	-	2	50	-	50	100
AR-408	Field Trips & M.D. Camps II	-	-	-	-	-	-	-	100	100
	TOTAL	13	15	-	2	30	300	-	900	1200

- Electives are treated as AUDIT SUBJECT of 100 marks each, with 50% required for passing. The marks obtained in Elective subject shall not be added towards aggregate total of the mark sheet.

**THIRD YEAR
FIFTH SEMESTER**

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	FT	Total				
AR-501	Design Studio – V	-	13	-	-	13	-	-	600	600
AR-502	Construction Techniques – V	2	4	-	-	6	100	-	100	200
AR-503	Structure – V	2	-	-	-	2	50	-	50	100
AR-504	History of Architecture – V	2	-	-	-	2	50	-	50	100
AR-505*	Elective – V	2	-	-	-	2	-	-	-	-
AR-506	Environmental Science-II (Landscape.)	2	2	-	-	4	-	-	100	100
AR-507	Building Regulations	1	-	-	-	1	-	-	50	50
AR-508	Field Trips & M.D. Camps III	-	-	-	-	-	-	-	50	50
	TOTAL	11	19	-	-	30	200	-	1000	1200

- Electives are treated as AUDIT SUBJECT of 100 marks each, with 50% required for passing. The marks obtained in Elective subject shall not be added towards aggregate total of the mark sheet.

**THIRD YEAR
SIXTH SEMESTER**

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEK					Exam	Viva	T.W.	Total marks
		L	S	WS LAB	FT	Total				
AR-601	Design Studio – VI	-	12	-	-	12	-	-	600	600
AR-602	Construction Techniques –VI	2	4	-	-	6	100	-	100	200
AR-603	Structure – VI	2	-	-	-	2	50	-	50	100
AR-604	History of Architecture – VI	2	-	-	-	2	50	-	50	100
AR-605	Research Methods	2	-	-	-	2	-	-	100	100
AR-606	Building Services II	2	-	-	-	2	-	-	50	50
AR-607	Design Theory I	2	-	-	-	2	-	-	50	50
AR-608*	Elective – VI	2	-	-	-	2	-	-	-	-
	TOTAL	14	16	-	-	30	200	-	1000	1200

- Electives are treated as AUDIT SUBJECT of 100 marks each, with 50% required for passing. The marks obtained in Elective subject shall not be added towards aggregate total of the mark sheet.

Rules for Bachelor of Architecture Program B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Arch 1

A candidate will be allowed to appear at the B. Arch examinations of semesters - I to X after he has satisfactorily kept term for the concerned semester.

Arch 2

A student shall be deemed to have satisfactorily kept terms for any semester provided he has:

- 1- Attended at least 75% of the total lectures / studio during the semester and
- 2- He has completed his studio assignments and other term work satisfactorily.

Arch 3

In every subject, the Theory and term-work, shall be considered as separate Heads for passing.

Arch 4

Minimum passing percentage shall be 50 % for term work and 40 % for Theory subject.

Arch 5

At the end of each semester a student shall be allowed to reappear in maximum of two-theory examination for promotion to the next semester.

Arch 6

At the end of each year a student will be allowed repetition of a maximum of two theory subjects.

Arch 7

A student should successfully clear the examinations for any two consecutive terms in the same category of subjects. i.e Structure – I, II, & III, History of Architecture - I, II, III etc. before being permitted to the next semester.

Arch 8

A student who has been detained or has failed in any term work shall have to repeat the concerned semester.

Arch 9

If a student is detained or is not granted terms in a particular semester for reason of insufficient attendance / non-submission of term work he will not be allowed to keep terms for the next higher semester.

Arch 10

No candidate will be allowed to reappear in any semester examinations in which he has once appeared and passed.

Arch 11

The first stage of the course (for all three streams i.e. Architecture, BCT, ID) ends at the end of third year. Hence all the subjects should be successfully completed at the end of VII semester in order to qualify for the next stage.

Arch 12

The students will have to clear six elective subjects in the first stage and six electives with the second stage in order to clear stage.

Arch 13

The tenth semester Jury evaluation of design shall be arranged every six months i.e. Jun / July and Nov / Dec or as suitable to the University.

Arch 14

A candidate will be declared to have passed the final year examination leading to the award of Degree in Architecture in First Class with Distinction, First Class or Second Class,

Percentage of marks	corresponding class for award of degree
66% or more	First class with Distinction
60% or more but less than 66%	First class
50% or more but less than 60 %	Second class.

Arch 15

For the purpose of awarding the rank the aggregate marks of semester IX & X obtained with one sitting shall be considered.

Note :

Rules Arch 1 to Arch 10 shall also apply to the student studying with old syllabus.

List of Electives for all streams

POP Workshop	Creative writing
Clay workshop	Music / Drama
Wood workshop	Drawing and Painting
Color & texture workshop	Videography
Computer applications	Colour and Texture
Appreciation of buildings	Architectural Journalism
Photography	
Aesthetics	
Art History	
Advanced CAD applications	Green Architecture
GIS applications	Cities & Civilizations
Multimedia and web design	Stage Design
Sustainable development	Exhibition Design
Alternate technology	Building Skins
Advanced Concrete Technology	History of Furniture
	Building systems integration.
Building Economics	Advanced issues in urban design
Real Estate Management	Advanced issues in Landscape
Disaster Resistant Building Technology	Infrastructure Planning and Management
Retrofitting of building	Intelligent Building
Project contract system	
Construction Equipment and methods	
Labour law and management.	

Note : Additional titles for electives can be added as per the current needs.

**FIRST YEAR
SECOND SEMESTER B. ARCH, B. ARCH (ID), B. ARCH (BCT)**

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	FT	Total				
AR-101	English for communication I	1	-	-	-	1	-	-	50	50
AR-102	Introduction to Architecture I	1	-	-	-	1	-	-	50	50
AR-103	Basic Design Studio – I	-	4	-	4	8	-	-	300	300
AR-104	Architectural Graphics – I	-	4	2	2	8	-	-	400	400
AR-105	Construction Techniques – I	2	4	-	-	6	100	-	100	200
AR-106	Structures – I	2	-	-	-	2	50	-	50	100
AR-107	History of Architecture – I	2	-	-	-	2	50	-	50	100
AR-108*	Elective – I	-	-	2	-	2	-	-	-	-
	TOTAL	8	12	4	6	30	200	-	1000	1200

AR-101

ENGLISH FOR COMMUNICATION - I

FOCUS:

- Improvement of comprehension, expression and usage of the language.
- Stress to be laid on coherence of expression and structuring of contents in speech and writing work.

CONTENTS:

- Direct and reported speech, Active and Passive voice
- Tenses and Propositions
- Conditional Sentences
- Précis writing and Business and Professional letter writing

Lectures to be followed by practice session in the class.

AR – 102

INTRODUCTION TO ARCHITECTURE - I

FOCUS:

- To orient the student to study of architecture as a profession and design discipline.

CONTENTS:

- Role of an architect in an architectural project, and in society
- Disciplines and skills to be learnt by an architect.
- Factors influencing architectural works and understanding the terms such as vernacular, traditional, classical, modern, post-modern and neo-modern renaissance, European, oriental.
- Visits to building of architectural significance.

AR – 103

BASIC DESIGN STUDIO – I

FOCUS:

- Development of Perception skills.
- Understanding basic design principals, elements and theory.

CONTENTS:

- Principals of composition such as symmetry, balance, etc.
- Role of various as design elements: line, plane, solids and their inter relationship.
- Proportioning principles, anthropometry, scale & proportion.

PROJECT:

- Abstract exercises based on above issues.
- Design of minimum functional spaces

AR - 104

ARCHITECTURAL GRAPHICS - I

FOCUS:

- Development of drawing skills as tool. aid to Visual Perception, designing and presentation.
- Imbibing usage of various techniques and media.

- CONTENTS:**
- Introduction of computers as a drawing aid.
 - Learn primary equipments of drawing and drawing media. AutoCAD. Development of surfaces of solids, isometric and axonometric projection.
 - Perspective view with one point. Shading techniques with various drawing materials.
 - Basics of software of computers. Learning CAD based software and respective languages.
 - Observation & recording through sketching. Concept of scale.

AR – 105

CONSTRUCTION TECHNIQUES – I

- FOCUS:**
- Knowledge of basic building materials, respective methods of construction.
 - Theory of above, including their representation and drawing.

- CONTENTS:**
- Understanding of various components of a building
 - Behavior of materials i.e Stone, Lime, Timber, Bricks
 - Construction methods of walls, foundation, roofs, etc.
 - Common building materials, their properties and usages
 - Understanding natural structures and their intuitive behavior
 - Construction drawing and terminology

AR - 106

STRUCTURES - I

- FOCUS:** Learning Basic Structural Behavior.

- CONTENTS:**
- Structural and Technical Terminology, and Basic Structural Elements.
 - History of Structure - Basic Primitive Shelter to Advanced Structures.
 - Structural Forces - Natural and Man made. Natural as in Wind, Temperature and Geographical.
 - Manmade Forces as in Dead and Live Load.
 - Composite Systems in Structure and Design Characteristics such as Strength, Stability and Stiffness. Suitable Structural Solutions.

- METHOD:**
- Practical Exercise of Model Making for Structural Testing.

AR – 107

HISTORY OF ARCHITECTURE - I

- FOCUS:**
- Development of theoretical understanding
 - Understanding creative pursuits of ancient worlds.

- CONTENTS:**
- Beginnings of Architecture:**
- Prehistoric settlements and Megalithic Constructions
 - Ancient Mesopotamia
 - Ancient Egypt
- Non-European Civilizations:**
- Traditional architecture of China & Japan
 - Architecture of south-east Asia
 - Pre-Colombian America
 - Black Africa

AR – 108

ELECTIVE - I

- FOCUS:** To help students to explore their aptitudes and develop skills in any related field. A number of subjects can be offered depending on the faculty interests and availability.

- CONTENTS:** Students may register for any one of the courses offered for the semester as shown in the appendix.

FIRST YEAR**SECOND SEMESTER B. ARCH, B. ARCH (ID), B. ARCH (BCT)**

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	F T	Total				
AR-201	English for communication II	1	-	-	-	1	-	-	50	50
AR-202	Introduction to Architecture II	1	-	-	-	1	-	-	50	50
AR-203	Basic design Studio – II	-	4	-	4	8	-	-	300	300
AR-204	Architectural Graphics – II	-	4	2	2	8	-	-	400	400
AR-205	Construction Techniques – II	2	4	-	-	6	100	-	100	200
AR-206	Structures – II	2	-	-	-	2	50	-	50	100
AR-207	History of Architecture – II	2	-	-	-	2	50	-	50	100
AR-208*	Elective – II	-	-	4	-	2	-	-	-	-
	TOTAL	8	12	6	6	30	200	-	1000	1200

AR-201***ENGLISH FOR COMMUNICATION – II*****FOCUS:**

- Improvement of comprehension, expression and usage of the language.
- Stress to be laid on coherence of expression and structuring of contents in speech and writing work.

CONTENTS:

- Book reviews
- Site visit report
- Small essay on topics

METHOD

- Individual Presentations
 - Group Discussions
-

AR – 202***INTRODUCTION TO ARCHITECTURE II*****FOCUS:**

- To orient the student to study of architecture as a profession and design discipline.

CONTENTS:

- Role of an architect in an architectural project, and in society
- Disciplines and skills to be learnt by an architect.
- Factors influencing architectural works and understanding the terms such as vernacular, traditional, classical, modern, post-modern and neo-modern renaissance, European, oriental.
- Visits to building of architectural significance.

AR – 203***BASIC DESIGN STUDIO – II*****FOCUS:**

- Expression of aesthetic skills with functional utility.
- Use of graphics as design aid.

CONTENTS:

- Organization of solids and creation of spaces
- Design principles such as orders, pattern, rhythm
- Use of graphics as a design aid.
- Use of different material

PROJECT:

- Abstract exercises based on above issues.
 - Architecture small design project with one or two component spaces and functions
-

AR – 204

ARCHITECTURAL GRAPHICS - II

- FOCUS:**
- Development of drawing ability as an aid/tool to /for designing and for perception of 3 dimensional spaces.
 - Familiarization with basics of computers.
- CONTENTS:**
- Development of skills of visualization with respect to thinking in 3D, mastering sketching techniques with due speed.
 - Presentation techniques such as solid advanced isometrics, complex axonometric, sciography and two point perspectives.
 - Rendering techniques.
 - Understanding measurement systems, notations, representation
 - Model making
 - Exposure to Internet, different softwares relating to the subject.

AR – 205

CONSTRUCTION TECHNIQUES – II

- FOCUS:**
- Understanding basic construction materials.
 - Construction methods,
 - Representations of drawings.
- CONTENTS:**
- Building Materials i.e. Cement, Aggregate, Mortar, Steel, Concrete.
 - Understanding construction techniques/methods/materials of structures.
- METHOD:**
- Making construction drawings for them and understanding basic elements.
 - Measure drawings of small parts of buildings

AR – 206

STRUCTURES – II

- FOCUS:**
- Learning Basic Structural Behavior.
- CONTENTS:**
- Understanding Simple Structural Systems like Load Bearing.
 - Systems, Post and Beam Systems and their Load Calculations.
 - Understanding Material Behavior of Structures like Brick, Stone, Steel, Concrete, timber, etc.
 - Study of different Structural and Geometric Forms, their Structural Behavior and Support Systems.
 - Familiarization of Technical Calculations of Structural Behavior such as Stress / Strain Patterns, Shear and Moment, Aspect Ratios,
 - Point and Uniform Loads as well as their Basic Application.
- METHOD:** Understand the behavior of building components in design
-

AR – 207

HISTORY OF ARCHITECTURE – II

FOCUS:

- Understanding the development of early techniques in diff. cultures.
- Analysis of ancient buildings to understand various principles of design such as scale, proportions, forms, functions,
- Use of buildings – elements and their contribution to morphology.

CONTENTS:

Architecture of ancient India:

- Indus valley civilization
- Architecture in Vedic era
- Early Temples and other buildings in India (until 1200AD)

European Antiquity:

- The Greek World
 - The Roman World
-

AR – 208

ELECTIVE – II

FOCUS:

To help students to explore their aptitudes and develop skills in any related field. A number of subjects can be offered depending on the faculty interests and availability.

CONTENTS:

Students may register for any one of the courses offered for the semester as shown in the appendix.

**SECOND YEAR
THIRD SEMESTER**

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	F T	Total				
AR-301	Design Studio -III	-	12	-	-	12	-	-	500	500
AR-302	Construction Techniques III	2	6	-	-	8	100	-	100	200
AR-303	Structure-III	2	-	-	-	2	50	-	50	100
AR-304	History of Architecture - III	2	-	-	-	2	50	-	50	100
AR-305*	Elective – III	-	-	2	-	2	-	-	-	-
AR-306	Environmental Science – I (Climatology, lighting and Acoustics)	2		-	-	2	50	-	50	100
AR-307	Surveying and Levelling	2	-	-	-	2	50	-	50	100
AR-308	Field Trips & M.D. Camps I							-	100	100
	TOTAL	10	18	2	-	30	300	-	900	1200

AR – 301

DESIGN STUDIO – III

- FOCUS:**
- To acquaint students with basic concepts of environment, and human behavior
 - To develop conceptual understanding

- CONTENTS:**
- Design process
 - Understanding of plan & concept.
 - Context & space utilization.
 - Components of space making.

PROJECT: Design of a small scale building – a residence or a small institution

AR – 302

CONSTRUCTION TECHNICQUE – III

- FOCUS:**
- Understanding components of building including the services.
 - Building process (Process of construction).

- CONTENTS:**
- Arches and Lintels (Brick & Stone)
 - Structural system (Load bearing, Frame Structure) Lineout process and method.
 - Staircases in different materials
 - Doors & Windows in different materials
 - Toilets and their construction / Drawings
-

AR – 303

STRUCTURE – III

FOCUS: Analysis of structures

- CONTENTS:**
1. Fixed and continuous Beams
 2. Trusses.
 3. Arches.
 4. Frames

METHOD: Incorporate these elements in design project

AR – 304

HISTORY OF ARCHITECTURE - III

FOCUS:

Study of Architectural development in the medieval period in Europe & India.

CONTENTS:

Medieval architecture in Europe.

- Early Christian & Byzantine Architecture
- Romanesque Architecture
- Gothic Architecture

Medieval architecture in India:

- Regional Islamic architecture in India
 - Late Hindu Temples
 - Palaces and civic buildings
-

AR – 305

ELECTIVE – III

FOCUS:

To help students to explore their aptitudes and develop skills in any related field. A number of subjects can be offered depending on the faculty interests and availability.

CONTENTS:

Students may register for any one of the courses offered for the semester as shown in the appendix.

AR – 306

***ENVIRONMENTAL SCIENCES - I (CLIMATOLOGY,
LIGHTING AND ACOUSTICS)***

FOCUS:

- Understanding the built-form and Climatology in different climatic zones
Design elements for thermal comfort in different regions
- Understanding light & sound as elements affecting building design.

CONTENTS:

- Study of various examples in traditional & contemporary built environments in different regions.
 - Laboratory experiments & simulation studies.
 - Ventilation and air movement.
 - Micro Climate and Thermal comfort factors.
 - Thermal properties of materials. Solar radiation, heat gain, glare etc.
 - Understanding qualitative & quantitative requirements of light & sound in building design.
 - Control of Radiation & Noise
 - Lighting criteria, lighting levels for different activities,
 - Natural & artificial lighting, reduction of glare
-

AR – 307

SURVEYING AND LEVELLING

FOCUS: Techniques for presentation of measure drawing and setting out Building on site.

CONTENTS:

- Introduction to Various instruments used in Surveying for chain and compass survey
- Measure drawing techniques of presenting survey maps.

AR – 308

FILED TRIPS & MEASURE DRAWINGS CAMPS I

FOCUS: Study of new and old buildings in their contexts for appreciation and critical evaluation as well as introduce various issues to the students by interacting with common people

CONTENTS: Sites and buildings will be selected in order to complement studies undertaken in various subjects: Design Studio, Construction, History of Architecture, Landscape, Urban Design etc.

**SECOND YEAR
FOURTH SEMESTER B. ARCH, B. ARCH (ID), B. ARCH (BCT)**

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	FT	Total				
AR-401	Design Studio-IV	-	10	-	2	12	-	-	500	500
AR-402	Construction Techniques IV	4	-	-	-	04	100	-	100	200
AR-403	Structure – IV	2	-	-	-	02	50	-	50	100
AR-404	History of Architecture-IV	2	-	-	-	02	50	-	50	100
AR-405*	Elective – IV	2	-	-	-	02	-	-	-	-
AR-406	Building Services I	1	1	-	-	02	50	-	50	100
AR-407	Estimating, Costing & Specifications	2	-	-	-	02	50	-	50	100
AR-408	Field Trips & M.D. Camps II	-	-	-	-	-	-	-	100	100
	TOTAL	13	15	-	2	30	300	-	900	1200

AR – 401

DESIGN STUDIO - IV

FOCUS:

- Typological approach to design (building types – forms & functions)
- Climatic resolution of the problems.

CONTENTS:

- To understand design process
- Appropriate forms for different functions
- Role of climate in evolving building forms
- The vernacular and the contexts it presents.

PROJECT:

Medium size project like: a guest house, hotel, bank, or an art gallery in sites in at least three different regions

AR – 402

CONSTRUCTION TECHNIQUES – IV

FOCUS:

- Understanding principles & possibilities of various erection technology & their application

CONTENTS:

- Floors & Floor finishes.
- Roofs and Roof covering (finishes)
- Different types of Foundation in detail.
- Damp prevention.
- Retaining Walls, Compound Walls, Basement Details, Underground water tank.
- Roof lighting, Monitor windows, Clear story lighting alternatives.

PROJECT:

- Preparations of drawing for various components parts of building.
- Drawing of flooring and flooring details.
- Shop drawings for construction sites with scaffolding and centering drawings.

AR – 403

STRUCTURE – IV

FOCUS:

- Design of concrete structure.
- Theory and concept of reinforced cement concrete structure, analysis and design process

CONTENTS:

- Design of one way simply supported SS and continuous slab and design of two way and continuous slab
- Design of singly and doubly reinforcement beams, design of T beams
- Footings.

AR – 404

HISTORY OF ARCHITECTURE – IV

FOCUS: Classical Architecture

CONTENTS: **Indian context:**
Mughal architecture
Post Islamic Hindu religious & secular architecture.
European context:
Early & Classical Renaissance in Italy, Greater Europe
Mannerism in Italy & in Europe
Baroque in Italy
Rococo & its interpretation in France, Italy & Russia
Baroque & Rococo in Austria & Germany
Colonial Architecture in India and the US
British, Portuguese, French etc.

AR – 405

ELECTIVE – IV

FOCUS: To help students to explore their aptitudes and develop skills in any related field. A number of subjects can be offered depending on the faculty interests and availability.

CONTENTS: Students may register for any one of the courses offered for the semester as shown in the appendix.

AR – 406

BUILDING SERVICES – I

FOCUS: Building Electrical services, communication systems and Air conditioning systems

CONTENTS:

- **Electrical services:**
Power connection, A.C.&D.C. currents, Conduits, Distribution board and fuses, MCB, Change over switch. Electrical symbols for plan preparation.
Wiring systems (conceal and open), Fixtures and fitting for lighting systems.
- **Communication systems:**
Telephones, EPBX, Fax and computer net working.
- **Air conditioning:**
Various systems and installation studies The importance of load factor and Elementary detailing to accommodate the services like cooling tower, duct And mechanical installations.

METHODS: The orientation lectures with data information. Presentation of case study and preparation of proposal in the form of services drawings of any design project.

AR – 407

ESTIMATION, COSTING & SPECIFICATION

FOCUS: The estimation and budgeting with the stresses of cost control, Writing specifications for materials and various items of work.

CONTENTS:

- Introduction, Types of Estimates, Definitions of terms. Data required for preparation of estimates.
- Items of work, Mode of measurement of all items of work, Units of measurement I .S 1200, Study of ISI standards of measurements
- Specifications of different building items. General specification and detailed specification
- Rate Analysis: Importance, purpose and use of rate analysis. Factors affecting the rate analysis, Rate analysis of major items of building works. Factors effecting cost of work task work, general information regarding S.O.R

METHODS Class assignments, preparation of measurement sheet and abstract.
PROJECTS Methods for taking quantity for small residences for different items of work.

AR – 408

FILED TRIPS & MEASURE DRAWINGS CAMPS II

FOCUS: Study of new and old buildings in their contexts for appreciation and critical evaluation as well as introduce various issues to the students by interacting with common people

CONTENTS: Sites and buildings will be selected in order to complement studies undertaken in various subjects: Design Studio, Construction, History of Architecture, Landscape, Urban Design etc.

**THIRD YEAR
FIFTH SEMESTER**

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEKS					Exam	Viva	T.W	Total Marks
		L	S	WS LAB	FT	Total				
AR-501	Design Studio – V	-	13	-	-	13	-	-	600	600
AR-502	Construction Techniques - V	2	4	-	-	6	100	-	100	200
AR-503	Structure – V	2	-	-	-	2	50	-	50	100
AR-504	History of Architecture – V	2	-	-	-	2	50	-	50	100
AR-505*	Elective – V	2	-	-	-	2	-	-	-	-
AR-506	Environmental Science-II (Landscape.)	2	2	-	-	4	-	-	100	100
AR-507	Building Regulations	1	-	-	-	1	-	-	50	50
AR-508	Field Trips & M.D. Camps III	-	-	-	-	-	-	-	50	50
	TOTAL	11	19	-	-	30	200	-	1000	1200

DESIGN STUDIO – V

AR – 501

FOCUS:

- Campus design & site planning stress on ordering theme & concept

CONTENTS:

- Designing a campus of buildings having various user groups.
- Understanding hierarchy of spaces & clusters.
- Movement network & circulation.
- Landscaping.

PROJECT:

- Design of a Multi functional spaces housing, hostel, hotel, school, hospital, college in urban setting etc.

AR – 502

CONSTRUCTION TECHNIQUES V

FOCUS:

- Knowledge of various methods and techniques use in construction of the components of building as a whole.

CONTENTS:

- Steel and concrete (types)
- Form work-scaffolding shoring-strutting for the building (methods).
- Anti termite treatment thermal insulations water proofing systems.
- Structural joints / construction joints, expansion joints, seismic joints.
- Large span construction i.e. Shell roffs, Folded plates, portal frame pre fabricated structure.
- Sump and water tank (Underground, over head).

AR – 503

STRUCTURE – V

FOCUS:

Steel Structures

CONTENTS:

- Steel as a structural member and the design of structural steel members.
- Understanding connections within design of joints for tension, compression of bending moment.
- Concepts of gantry girder, Plate girder and fabricated columns

AR – 504

HISTORY OF ARCHITECTURE – V

- FOCUS:** • Architectural developments during 19th & Early 20th cent.
- CONTENTS:** • Technical progress In England and the Industrial revolution.
• Neoclassicism in France and Gothic revival
• Artistic movements like Bauhaus, De Stijl, Art Noveau, CIAM etc.
• Modernism in Europe & the US

AR – 505

ELECTIVE – V

- FOCUS:** To help students to explore their aptitudes and develop skills in any related field. A number of subjects can be offered depending on the faculty interests and availability.
- CONTENTS:** Students may register for any one of the courses offered for the semester as shown in the appendix.

AR – 506

ENVIROMENTAL SCIENCE II -- LANDSCAPE

- FOCUS:** • Principles of landscape design, techniques & application.
- CONTENTS:** • Elements of landscape: land forms, plants, material, water, rocks, and lighting.
• Types of soils, plant materials (tree, shrubs, ground covers, creepers, flowering and non flowering spices), water bodies, surfacing materials, creating levels and changing landforms, manmade elements.
• Historical and contemporary attitudes to landscape (India and elsewhere).
• Principles of landscape design: surfacing, enclosure, vistas,
• Composition of plant and other material etc. Preparing design drawing (using standard notations & symbols).
-

AR – 507

BUILDING REGULATIONS

- FOCUS:** Study of building control regulations, bye laws and codes of practices prevalent in different development authorities and municipalities in India
- CONTENTS:** • Need for development and building control, Legislation under which rules and Regulations have been worked out. The introduction of National Building Code.
• Definitions and explanation of various Acts, Development plans, Planning authority, Local authority, Built up area, building units, FSI, plot coverage, Margins, setbacks, Occupancy certificates etc.
• General development requirements and regulations in Gamthal, Municipal, Industrial areas, low cost housing etc.
• Procedure for securing development permission and documents required.

METHODS: Lectures and case studies.

AR – 508

FIELD TRIPS & MEASURE DRAWINGS CAMPS III

- FOCUS:** Study of new and old buildings in their contexts for appreciation and critical evaluation as well as introduce various issues to the students by interacting with common people
- CONTENTS:** Sites and buildings will be selected in order to complement studies undertaken in various subjects: Design Studio, Construction, History of Architecture, Landscape, Urban Design etc.

**THIRD YEAR
SIXTH SEMESTER**

B. ARCH, B. ARCH (ID), B. ARCH (BCT)

Code	Subject	HOURS / WEEK					Exam	Viva	T.W.	Total marks
		L	S	WS LAB	FT	Total				
AR-601	Design Studio - VI	-	12	-	-	12	-	-	600	600
AR-602	Construction Techniques -VI	2	4	-	-	6	100	-	100	200
AR-603	Structure - VI	2	-	-	-	2	50	-	50	100
AR-604	History of Architecture - VI	2	-	-	-	2	50	-	50	100
AR-605	Research Methods	2	-	-	-	2	-	-	100	100
AR-606	Building Services II	2	-	-	-	2	-	-	50	50
AR-607	Design Theory I	2	-	-	-	2	-	-	50	50
AR-608*	Elective – VI	2	-	-	-	2	-	-	-	-
	TOTAL	14	16	-	-	30	200	-	1000	1200

AR – 601

DESIGN STUDIO – VI

FOCUS:

- Architectural detailing & working drawings.

CONTENTS:

- Detailing components & working drawings.
- Choice of materials, fixtures & fittings.
- Detailed drawings of services, openings staircases etc.

PROJECT:

Design of a single residence unit and layout of cluster of houses

AR – 602

CONSTRUCTION TECHNIQUES – VI

FOCUS:

- Understanding of design process & construction of interior components of buildings.
- Mechanical circulation, automated systems, swimming pools.
- Detailed specifications, materials & methods of execution.

CONTENTS:

- Service duct, electrical duct, A.C. duct, lift well.
- Internal elements of built form i.e. Partitions, False ceiling, False floors, Cabinets and Furniture etc.
- Building finishes i.e. Internal wall and ceiling, External wall, Polishing and Varnishing.
- Earthquake resistance.
- Internal building components.

AR – 603

STRUCTURE – VI

FOCUS:

Water Tanks, Foundations and Girders

CONTENTS:

- Structural behavior and typical reinforcement details of overhead and Underground R.C.C. water tank, retaining wall, flat and waffle slab, folded plate, Bunkers and silos, shells, hyperbolic-paraboloid forms, space frames.
- Introduction to pre-stress concrete.
- Concept of gantry girder, plate girder, fabricated columns, Geodesic dome, encased beam, castellated sections, Vierendeel truss, arch and cable structure.
- Introduction to types of foundations, combined footings, pile foundations and caps, raft foundation.

AR – 604

HISTORY OF ARCHITECTURE – VI

FOCUS:

- Mid & Late 20th cent to Contemporary Architecture

CONTENTS:

- Works of Architects like Alvar Aalto, Eero Saarinen, Luis Kahn, Robert Venturi
- Post Modernism: Philip Johnson, Charles Moore, Michael Graves, Richard Mier, James Sterling & others
- Architecture and Deconstructionism and Post-structuralism
- Contemporary Architecture

AR-605

RESEARCH METHODS

FOCUS:

- To encourage analytic approach and inculcate research skills

CONTENTS:

- Significance of methods in design and research
- Issues and methods for selecting the subject
- Understanding of Scope and limitations for the subject
- Mechanics of writing and presenting research
- Selection of the research subject and define its scope and methods

AR – 606

BUILDING SERVICES – II

FOCUS:

Study of and Design and detailing for water supply, drainage disposal, garbage disposal at micro and macro level.

CONTENTS:

- Wastewater treatment systems. Important terms and definitions.
- Collection and conveyance of sewage.
- Systems of plumbing. House drainage plans. Rain water harvesting
- Septic tanks and effluent disposal from septic tank, Layout of sewage treatment plant, Layout of water treatment plant,
- Water demand, Factors affecting rate of demand

PROJECT:

Preparation of sheets for sanitary fittings and fixtures, septic tank, etc with dimensions. Services plans for toilet, layout plans for site showing drainage line, terrace floor plan with O.H. Water tank detail

AR – 607

Design Theory I

FOCUS:

Design Theory will explore significant principles and theoretical issues in the architectural design and practice. The course will consist of lectures and investigation by the students of existing literature and case studies.

CONTENTS:

The student is supposed to explore the significance of contemporary design approaches and related issues such as

- Historic sources of Contemporary Ideas
- Design Manifestoes in the 20th Century
- Theories and Design for the New Towns
- Urban Issues and design guidelines
- Social issues in Housing

EVALUATION:

Presentation of design issues and case studies with relevant drawings, models and texts.

AR – 608

ELECTIVE – VI

FOCUS:

To help students to explore their aptitudes and develop skills in any related field. A number of subjects can be offered depending on the faculty interests and availability.

CONTENTS:

Students may register for any one of the courses offered for the semester as shown in the appendix.