B.ARCH. SEMESTER-I AR-101 ARCHITECTURAL DESIGN-I

Scheme of Teaching				Scheme of Examination				Duration of Examination
L	P/V	S/T	Total	S	Exam. T	Exam P/V.V	Total	
2	-	7	9	100	100	50	250	6 Hrs.

OBJECTIVES:

- Orientation of students to the profession of architecture.
- Introduction to basic design and the basic understanding of form and space in architecture

CONTENTS:

Space and Architecture: Understanding design as to create for a Particular purpose and architectural design as to Create space- exercise in terms of simple drawing and sketching of objects available in nature and surroundings.
Form created through lines (Columns) and Planes (Volumes), and combination there of.

Form and Transformations: Additive, dimensional, subtractive exercises primarily through 3 D models of simple geometry.

Scale in Architecture: Simple measurement exercises.

Order in Architecture: Geometrical, structural, dimensional, Exercises material, spatial orders-through observation of surrounding as well as simple exercises in 2D and 3D.
Exercises in order and transformation of form and space.

Anthropometrics Studies: **Introduction to Anthropometrics.**

Orientation to the Architecture Profession: **Role of an Architect in the built environment. Building process, role of other professional in Building A general survey of the changes in Habitat in history.**
Architects act, C.O.A.I.I.A., NASA.

APPROACH:

- Drawing and model making skills will be taught along with the subject to improve the abilities to understand space and form.

B.ARCH. SEMESTER-I AR-102 CONSTRUCTION AND MATERIALS -I

Scheme of Teaching				Scheme of Examination				Duration of Examination
L	P/V	S/T	Total	S	Exam. T	Exam P/V.V	Total	6 Hrs.
1	-	5	6	100	50	50	200	

OBJECTIVES:

- To familiarize the students with constituents, properties and uses of traditional building materials used in construction.
- To understand the use of these traditional building materials in simple building works.

1. Materials

Clay and Clay Products:	Mud including stabilized earth, Burnt Brinks, Brick Tiles, Brick Ballast and Surkhi.
Stone:	Classification, Availability, Characteristics and Uses.
Lime:	Availability, Preparation and Uses.
Cement:	Properties & Uses.
Sand and Surkhi:	Characterstics, Availability and Uses.
Mortar:	Mud, Lime, and Cement.

2. CONSTRUCTION

Element of Building:	Terminology, nomenclature of various parts of building from foundation to roof.
Brick Work:	Brick Terminology, Simple Bonds (English & Flemish) in Brick work **(upto 1 1/2 brick thick wall)** Details at junctions (L& T) Quoins
Stone Work:	Elementary Stone Masonry, Types of Joints. Random, Square and Ashlars Stonework.
Foundation:	Need, Design criteria. Foundation concrete. Details of simple Spread Foundations for load bearing walls of various thicknesses.

APPROACH:

- The students would be familiarized with vernacular terminology as prevalent in this part of the country.
- The emphasis will be construction details as applicable to Indian conditions.
- Site visits and market surveys will be an integral part Sessional work.

B.ARCH. SEMESTER-I AR-103 ARCHITECTURAL STRUCTURES -I

Scheme of Teaching				Scheme of Examination				Duration of Examination
L	P/V	S/T	Total	S	Exam. T	Exam P/V.V	Total	
2	1	-	3	50	50	-	100	3 Hrs.

OBJECTIVES:

- To understand the basic principles of structural mechanics so that it forms the basis for study of structural design.

CONTENTS:

Simple stresses and Strains: Elasticity, stress, strain, Types of stresses, Elastic limit, Hook's Law. Modulus of Elasticity, Stresses in Composite Bars. Primary or Linear Strain, Poison's ratio, shear stress, Principal stresses and strains.

Centre of Gravity: Definition, Methods of finding out C.G. of simple figures, Centre of parallel forces.

Moment of Inertia: Definition, important theorems, section modules, Calculation of ML by first principles and its application, ML of Composite sections.

Elements of Statics: Law of parallelogram of forces, Resolution of a force, Law of triangular of forces, polygon of forces, Theorem of resolved [arts, resultant of number of concurrent coplanar forces, Conditions of equilibrium, moment of a force, Moment and arm of a couple, Theorems on couples.

Shearing force and Bending Moments: Beams Shearing force and bending moment, Moment of resistance. S.F. and B.M. diagrams of simple cases.

APPROCH:

- The lectures by the experts in the field will be arranged for the students so as to give them exposure to the practical aspects of design.

B.ARCH. SEMESTER-I AR-104 ARCHITECTURAL DRAWING -I

Scheme of Teaching				Scheme of Examination				Duration of Examination
L	P/V	S/T	Total	S	Exam. T	Exam P/V.V	Total	
2	-	5	7	100	100	-	200	3 Hrs.

OBJECTIVES:

- Familiarization with drawing tools and accessories.
- To give a basic knowledge of good drafting and lettering techniques.
- To develop comprehension and visualization of geometrical forms.

CONTENTS:

Drawing tools and Accessories:	Introduction to the subject and drawing equipment. Setting of drawing equipment. B.I.S/code of practice for architectural designs. Drafting and quality of lines with pencil.
Basic technical drawing:	Concept and types of line. Division of lines and angles. Drawing polygons. Inscribing and circumscribing circles in polygons.
Orthographic Projections:	Definition, meaning a concept. Planes of projections. First angle projections. Projection of points, lines and planes in different positions. Projection of regular rectilinear and circular solids (Prisms, pyramids, cones, cylinders, spheres etc.) in different positions. Sections of regular rectilinear and circular solids (prisms, pyramids, cones, cylinders, spheres etc.) in varying conditions of sectional plane.
Development of Surfaces:	Types and uses of scales. Scales used by an architect. Reducing and enlarging scales.
Lettering:	Free hand and mechanical lettering.

APPROACH:

- Maximum drafting work will be done in the studio.
- Models of solid will be used as teaching aids.
- Exercises for each topic will be undertaken.

B.ARCH. SEMESTER-I AR-105 ARTS & GRPHICS -I

Scheme of Teaching				Scheme of Examination				Duration of Examination
L	P/V	S/T	Total	S	Exam. T	Exam P/V.V	Total	
1	-	3	4	50	50	-	100	3 Hrs.

OBJECTIVES:

- Introduction to art and appreciation of art and its philosophies.
- Familiarization with principles and theories and graphic and architectural composition.
- Development of art and graphic skills.

CONTENTS:

Philosophy of Art:	**Appreciation of art: Painting, Sculpture and Architecture.** **Art in Architecture: psychological and emotional aspect of aesthetics.**
Theory of Design: **(Introduction to Graphic Composition)**	Elements of design – Line, Direction, Shape size and form, Texture, Colour.
Art and Graphics Skills:	Exercise to develop free hand skills-drawing lines, joining points, drawing curves, comprehension of scale. Still Life drawing-from observation. Drawing from nature-shrubs, trees, grass, plants, rocks, and water.(Using various grades of pencils)

APPROACH:

- The theory part of the course will be an overview covered audiovisual lectures delivered by experts in the field.
- Studio exercises of graphic composition will be in the form of drawings, collapases and models.
- The students would be taught to handle various mediums in studio work as part of development of art and graphics skills.
- The examination paper would be so set so as to test the knowledge and understanding of the student for each distinct part of the syllabus.

B.ARCH. SEMESTER-I AR-106 ARCHITECTURAL WORKSHOP-I

Scheme of Teaching				Scheme of Examination				Duration of Examination
L	P/V	S/T	Total	S	Exam. T	Exam P/V.V	Total	
1	-	1	2	50	-	-	50	No Exam

OBJECTIVES:

- To develop skills in understanding the complexities and constrains of brick masonry and joinery in carpentry.
- To familiarize the student with the basic skills of photography for use in architectural work.
- To familiarize the student with the use of various materials for model making.

CONTENTS:

Workshop: To Familiarize & understanding the complexities and constrains of brick masonry and joinery in carpentry.

Photography: Creative composition in photography and its role in documentation and creative design process.

Model Making: Construction of simple- 3 dimensional form and preparing of detail models of architectural forms in different materials.(Eg. Clay, paper, form etc.)

APPROACH:

- Most of the assignments shall be done in the college workshop.
- Laboratory demonstration of developing and printing of black and White photographs.

B.ARCH. SEMESTER-I AR-107 COMMUNICATION TECHNIQUES-I

Scheme of Teaching				Scheme of Examination				Duration of Examination
L	P/V	S/T	Total	S	Exam. T	Exam P/V.V	Total	-
1	1	-	2	50	-	-	50	

OBJECTIVES:

- To develop in students communicative writing and presentation skills.
- To enable them to record, report, analyze, evaluate and understand architecture, both in its theoretical and practical form.

CONTENTS:

Revision: Sentence, phrase, clause and parts of speech: noun-gender, number case, pronoun: personal, reflexive, emphatic, demonstrative indefinite, distributive, reciprocal, adjective, article, preposition, conjunction and interjection.

Words and Idoms: Vocabulary, word building and word formation, phrases and idoms, proverbs, reading a dictionary, using a thesaurus.

Composition and Comprehension: Essay, Story and letter writing, Summarizing, comprehension-unseen passages.

Architectural journalism: Recording/ Collecting material, writing pertaining to events/activities.

Studying various works of Master Architects

Presentations & Tour Reports

Writing reports on design projects/complexes.

APPROACH:

- The grammatical parts of writing to focus on communicative rather than structural aspects.
- The students shall be exposed to works of professional art and architecture critics such as Vikram Bhatt, Vincent Scully, Gautam Bhatia etc.
- Various forms of architectural journalism shall be studied from magazines and journals.