prospectus

department of

architectutre

university of asia pacific

department of
architecture
walk to remember...

administration and departments

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Hon'ble President of People's Republic of Bangladesh

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Prof. Dr. Jamilur Reza Choudhury

Pro Vice-chancellor
Prof. Dr. M. R. Kabir

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School of Business
Department of Business Administration
School of Engineering
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Department of Computer Science and Engineering
Department of Electrical and Electronic Engineering
School of Environmental Sciences and Engineering
Department of Architecture
School of Science
Department of Pharmacy
Department of Mathematics
Department of Basic Science and Humanities
School of Social Science and Arts
Department of Law and Human Rights
Department of English

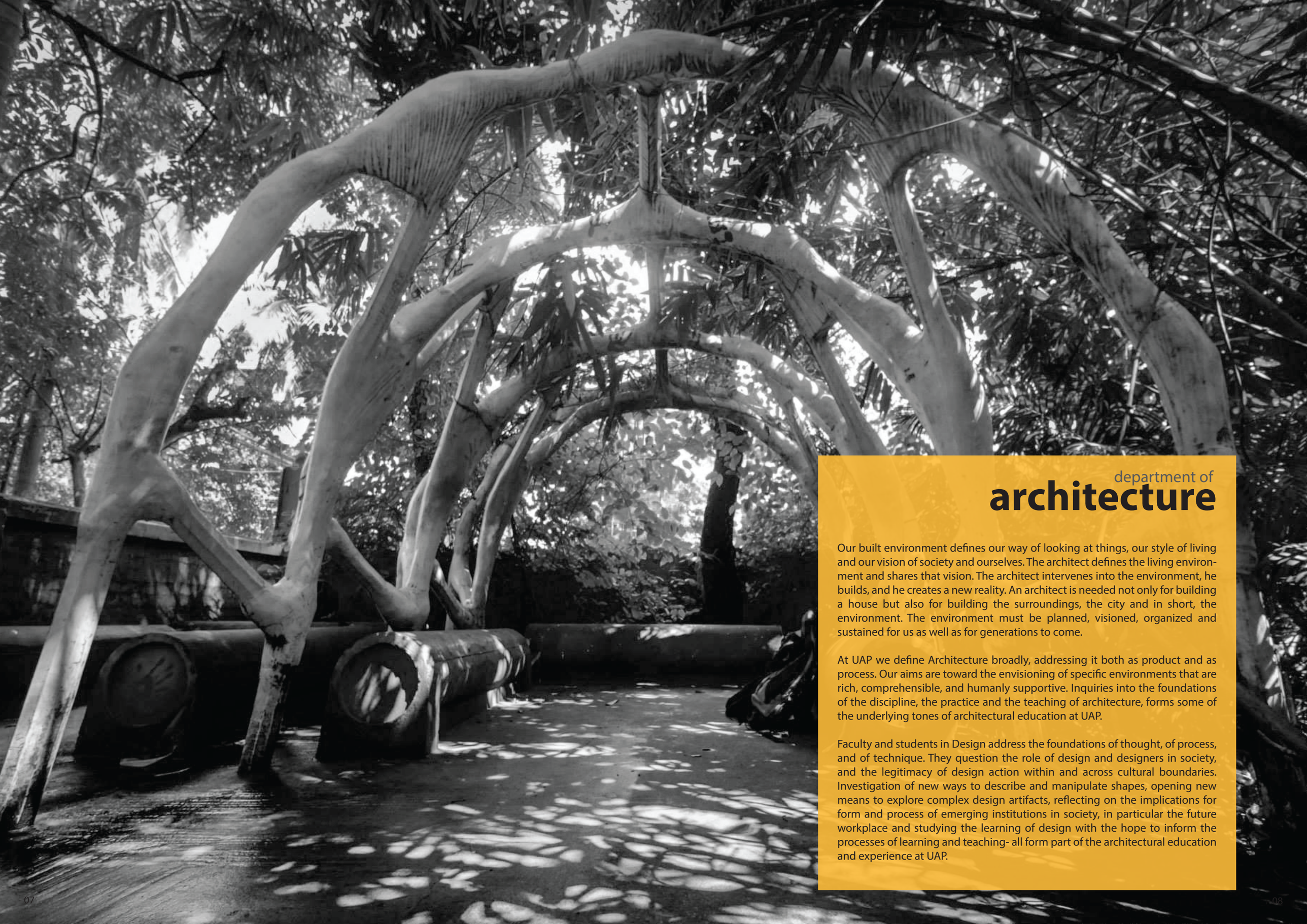
contents

UAP mission

UAP mission is to offer best possible education to our young generation. Towards the mission, UAP continues to develop a sustained culture of ascending to a top-tier of vibrant academic environment; maintain and foster well qualified faculty, provide adequate research support for cutting-edge research in-house and in collaboration national and international peers; update curricula to keep up with advancing trend in science and technology, use state-of–the- art best practices in teaching-learning and modern facilities in laboratories and libraries; and provide other supports in aid to students' becoming competent graduates with their potential fully realized and personality well-developed for joining the global forces in making the future of society in a changing world.

UAP
vision

UAP holds steadfastly its passion to do better and better in fulfilling our young generation's needs and aspirations for a caring and quality education in casting their future career and become a desirable destination for an identity.



department of
architecture

Our built environment defines our way of looking at things, our style of living and our vision of society and ourselves. The architect defines the living environment and shares that vision. The architect intervenes into the environment, he builds, and he creates a new reality. An architect is needed not only for building a house but also for building the surroundings, the city and in short, the environment. The environment must be planned, visioned, organized and sustained for us as well as for generations to come.

At UAP we define Architecture broadly, addressing it both as product and as process. Our aims are toward the envisioning of specific environments that are rich, comprehensible, and humanly supportive. Inquiries into the foundations of the discipline, the practice and the teaching of architecture, forms some of the underlying tones of architectural education at UAP.

Faculty and students in Design address the foundations of thought, of process, and of technique. They question the role of design and designers in society, and the legitimacy of design action within and across cultural boundaries. Investigation of new ways to describe and manipulate shapes, opening new means to explore complex design artifacts, reflecting on the implications for form and process of emerging institutions in society, in particular the future workplace and studying the learning of design with the hope to inform the processes of learning and teaching- all form part of the architectural education and experience at UAP.

vision

department of architecture

In the context of ever changing needs and challenges, the Department of Architecture, UAP with its caring and quality education aspires to develop creative, enlightened, socially responsible and morally upright scholars appropriate to serve and lead the contemporary and upcoming world.

mission
department of architecture

The Department's mission is to:

- Continuously upgrade the scholastic endeavor and to evolve a teaching-learning environment that is engaging and conducive for guiding young inquisitive minds.

- By combining tradition with new innovations and creativity the department acts as a center point for generation and exchange of ideas those can contribute for a better future of the society in a responsible and morally upright way.

- The Department provides a vibrant academic environment where the students, academicians, professionals, national and international peers and eminent personalities engage themselves on connecting, conserving, preserving, creating and applying knowledge for the betterment of the future and the society.

- The Department is deeply committed to facilitate the learning environment through state-of-the-art library, labs, workshops, studios and other infrastructural facilities to realize the full potential of our faculties and students.

PEOs
Program educational objectives

The professional and personal developments the graduates are expected to demonstrate a few years after the completion of their degrees are embedded in the PEOs.

- PEO 1: Take professional standards to new heights by being an exemplary knowledgeable and ethical professional.

- PEO 2: Make innovation, creativity and exchange of ideas the central means to serve the society.

- PEO 3: Demonstrate ability to work efficiently in groups, communicate skillfully and show leadership qualities.

- PEO 4: Be at par with state of the art techniques and technology and most current research and development.

- PEO 5: Take lifelong learning as a motto and pursue and succeed in further education be it personal or institutional

Mapping between Mission vs. PEOs

PEOs → / Mission ↓	1. Take professional standards to new heights by being an exemplary knowledge able and ethical professional.	2. Make innovation, creativity and exchange of ideas the central means to serve the society. .	3. Demonstrate ability to work efficiently in groups, communicat e skillfully and show leadership qualities.	4. Be at par with state of the art techniques and technology and most current research and development	5. Take lifelong learning as a motto and pursue and succeed in further education be it personal or institutional
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undergraduate

curricula

The curriculum of architecture education is heavily focused on studio courses. At UAP the studios from first year to third year are considered as one integrated studio ensuring continuity between levels that are vast and diverse in character. The senior studios are aimed to create awareness of placing architecture among the greater context of urbanism, historical and cultural backdrop along with development of high professional competency. Bridging theory and sessional courses is also a primary focus of the UAP curriculum.

1ST YEAR

TERM 1

Prescribed Total 22.5 credit

SESSIONAL

ARCH 102 Design Studio I
4.5cr 9hr

ARCH 112 Architectural Graphics I
3.0cr 6hr

CSE 100 Computer Skills
3.0 4hr

THEORY

HSS 101 English l-Oral and Written:
Communication Skills
3.0 3hr

HSS 111 Bangladesh Studies:
Society and Culture
2.0 2hr

ARCH 141 History of Architecture l:
Ancient Period
2.0 2hr

ARCH 151 Aesthetics and Design
2.0 2hr

PHY 101 Physics
3.0 3hr

1ST YEAR

TERM 2

Prescribed Total 20.5 credit

SESSIONAL

ARCH 104 Design Studio II
(prerequisite-Arch 102)
4.5 9hr

ARCH 114 Architectural Graphics II
(prerequisite-Arch 112)
3.0 6hr

ARCH 124 Computer Graphics
(prerequisite-Arch 112)
2.0 3hr

THEORY

HSS 103 English II - Language Composition Skills
(Prerequisite HSS-101)
3.0 3hr

ARCH 133 Environment and Design I:
Climate and Design (Prerequisite Phy 101)
2.0 2hr

ARCH 143 History of Architecture II:Europe
(Prerequisite- Arch 141)
2.0 2hr

MATH 173 Calculus and Solid Geometry
2.0 2hr

OPTIONAL

ARCH 103 Art Appreciation
2.0 2hr

ARCH 193 Music Appreciation
2.0 2hr

2ND YEAR

TERM 1

Prescribed Total 20.0 credit

SESSIONAL

ARCH 202 Design Studio III
(prerequisite-Arch 104)
6.0cr **9hr**

ARCH 212 Graphic Art
1.0cr **2hr**

ARCH 222 Photography
1.0cr **2hr**

THEORY

ARCH 231 Environment and Design II : Visual & Sonic Environment (Prerequisite Phy 101)
2.0cr **2hr**

ARCH 241 History of Architecture III: Indian Buddhist and Hindu Periods
2.0cr **2hr**

ARCH 261 Building and Finish Materials
2.0cr **2hr**

ARCH 271 Basic Planning
2.0cr **2hr**

CE 281 Structure I- Mechanics
(Prerequisite Math 173)
2.0cr **2hr**

OPTIONAL

HSS 201 Environmental Psychology
2.0cr **2hr**

HSS 291 Economics and Development
2.0cr **2hr**

2ND YEAR

TERM 2

Prescribed Total 19.0 credit

SESSIONAL

ARCH 204 Design Studio IV
(prerequisite-Arch 202)
6.0cr **9hr**

ARCH 214 Art and sculpture
1.5cr **3hr**

ARCH 224 Computer aided drafting & design
(prerequisite-Arch 112)
1.5cr **3hr**

THEORY

ARCH 243 History of Architecture IV : Indian Muslim Period (Prerequisite Arch-241)
2.0cr **2hr**

ARCH 253 Development of Ideas
(Prerequisite - Arch 151)
2.0cr **2hr**

ARCH 263 Construction Methods and Details
2.0cr **2hr**

CE 283 Structure II: Basic Mechanics of Solids (Prerequisite - CE 281)
2.0cr **2hr**

OPTIONAL

ARCH 233 Design in the Tropical Area
(Prerequisite - Phy 101)
2.0cr **2hr**

ARCH 293 Ecology
2.0cr **2hr**

3RD YEAR

TERM 1

Prescribed Total 18.5 credit

SESSIONAL

ARCH 302 Design Studio V
(Prerequisite-Arch 204)
8.0cr **12hr**

ARCH 312 Working Drawing I: Construction Drawing
1.5cr **3hr**

ARCH 322 Cost Estimation
1.0cr **2hr**

THEORY

ARCH 341 History of Architecture V: Modern
2.0cr **2hr**

MECH 361 Building Services I: Mechanical
2.0cr **2hr**

CE 381 Structure III: Mechanics of Solids
(Prerequisite CE 283)
2.0cr **2hr**

OPTIONAL

ARCH 371 Theory and Practice of Planning
(prerequisite-Arch 271)
2.0cr **2hr**

ARCH 363 Building Technology
(prerequisite-Arch 261 & Arch 263)
2.0cr **2hr**

3RD YEAR

TERM 2

Prescribed Total 21.0 credit

SESSIONAL

ARCH 304 Design Studio VI
(prerequisite-Arch 302)
8.0cr **12hr**

ARCH 314 Working Drawing: Production Drawing (prerequisite-Arch 312)
1.5cr **3hr**

ARCH 324 Material and Construction Workshop (Prerequisite Arch 261& Arch 263)
1.5cr **3hr**

THEORY

ARCH 343 History of Architecture VI : Contemporary (Prerequisite Arch-341)
2.0cr **2hr**

ARCH 353 Urban Design I : Space and Form
2.0cr **2hr**

CE 383 Structure IV : Steel and Timber Structure (Prerequisite CE 281)
2.0cr **2hr**

CE 363 Building Services II: Plumbing
1.0cr **1hr**

EEE 363 Building Services II: Electrical
1.0cr **1hr**

OPTIONAL

ARCH 303 Interior Design
2.0cr **2hr**

ARCH 393 Building Types
2.0cr **2hr**

4TH YEAR

TERM 1

Prescribed Total 19.5 credit

SESSIONAL

ARCH 402 Design Studio VII
(Prerequisite Arch-304)
10.0cr **15hr**

ARCH 422 Interior Design
1.5cr **3hr**

THEORY

ARCH 441 Architecture and Society of Bengal
2.0cr **2hr**

ARCH 451 Landscape Design
2.0cr **2hr**

CE 481 Structure V: Reinforced Concrete Structure (Prerequisite CE 383)
2.0cr **2hr**

OPTIONAL

ARCH 401 Architectural Conservation
2.0cr **2hr**

ARCH 491 Urban Design II: Analysis and Application (Prerequisite ARCH 353)
2.0cr **2hr**

4TH YEAR

TERM 2

Prescribed Total 19.5 credit

SESSIONAL

ARCH 404 Design Studio VIII
(prerequisite-Arch 402)
10.0cr **15hr**

ARCH 424 Landscape Design
(prerequisite-Arch 451)
1.5cr **3hr**

THEORY

ARCH 463 Survey Techniques and Analytic Methods
2.0cr **2hr**

ARCH 473 Human Settlements
2.0cr **2hr**

CE 483 Structure VI: Elements of Building Structure (Prerequisite CE 481)
2.0cr **2hr**

OPTIONAL

ARCH 403 Urban Anthropology
2.0cr **2hr**

ARCH 471 Rural Planning
2.0cr **2hr**

5TH YEAR
TERM 1
Prescribed Total 19.5 credit

SESSIONAL

ARCH 502 Design Studio IX
(Prerequisite Arch-404)
12.0cr 15hr

ARCH 512 Seminar I: Preparation
1.5cr 3hr

THEORY

ARCH 561 Specification and Codes
2.0cr 2hr

ARCH 571 Construction Management
2.0cr 2hr

OPTIONAL

ARCH 503 Bioclimatic Design
2.0cr 2hr

ARCH 533 Environment and Design VI:
Environment Responsive Design
2.0cr 2hr

5TH YEAR
TERM 2
Prescribed Total 18.0 credit

SESSIONAL

ARCH 504 Design Studio X
(prerequisite-Arch 502)
12.0cr 15hr

ARCH 514 Seminar II: Presentation
(prerequisite-Arch 512)
1.5cr 3hr

ARCH 524 Dissertation
(prerequisite-Arch 502)
1.5cr 3hr

THEORY

ARCH 553 Professional Practice
1.0cr 1hr

ARCH 573 Principles of Accounting
2.0cr 2hr

Special requirement

ARCH 600 Internship
(Professional Training)

Total requirement for the B.Arch degree is 198 credits. (Including a non-credit internship of 12 weeks any time after the seventh term)

From all the optional courses,students require to complete any eight courses altogether.

In early studios, the students go through a process of exploration to identify, recognize and realize the basics of composition, studying both natural and man-made environment. The process remains open –ended to expose a freshman to both sensory and perceptual world of composition; to create awareness about the underlying coherence of all creative fields and also to enhance lateral learning from different fields of art and design.

Year ONE

1.1
LEVEL TERM

Studio/ Sessional
courses

Arch 102:
Design Studio I
9 hours / week: 4.5 credits

Recognizing the underlying order of environment and nature through the principles of basic composition. Understanding the merit of exploring alternative ways of attacking a problem. Exercises in two-dimensional composition in various media. Basic compositions with different elements of form, such as, points, straight and curved lines and geometric shapes. Study of order and balance, proportion, solid void relationship, symmetry, flexibility, harmony and shade-shadow through composition. Rhythm harmony and other compositional details. Relevance of these in the overall context of art architecture and music etc.

Arch 112:
Architectural Graphics I
6 hours / week: 3.0 credits

Understanding the purpose of graphics as artistic and technical tool. Lettering and graphic presentation symbols. Multi view drawings such as plan, section and elevation. Para line drawings such as isometric,axonometric etc. Understanding the comparative merits of different ways of presentation.

CSE 100:
Computer skills
4 hours/week: 3.0 credits

Basic orientation of computer application environment. Computer fundamentals and basic concepts. Introduction to operating systems such as DOS and Windows. Introduction to software like MS-Word, MS-Excel and Power point. Simple Maintenance aspects.

Theory
courses

Hss 101:
English I - Oral and Written Communication Skills
3 hours/week: 3.0 credits

The aim would be to develop ability to conduct quality conversation and other communicative expressions in real life situations, both professional and personal. Basic items would include the use of articles, numbers, tense, modal verbs, pronouns, punctuation, sentence & question formation, transformation of sentence.

Hss 111:
Bangladesh Studies- Society and Culture
2 hours/week: 2.0 credits

The aim would be to develop a tendency of seeing social factors in perspective, rather than in isolated manner. Main items would include primary concepts, mode of production, factors of social life, social structure and process, social institutions, culture and civilization, city and country, social change, problems of society and social problems of Bangladesh. Current aspects of Bangladesh society including urbanization and evolution of social control will be discussed.

Phy 101:
Physics- Mechanics, Properties of Matter, Waves, Optics, Heat & Thermodynamics.
3 hours / week: 3.0 credits

Mechanics: Motion in one Dimension, Motion in a Plane, Particle Dynamics, Work & Energy, Circular Motion, Simple Harmonic Motion, Rotation of Rigid bodies, Central Force, Structure of Matter, Mechanical Properties of Materials. Properties of Matter: Elasticity, Stresses & Strains, Young's Bulk & Rigidity Modulus, Elastic Limit, Poisson's Ratio, Relation between Elastic Constants, Bending in Beams. Fluid motion, Equation of Continuity, Bernoulli's Theorem, Viscosity, Strokes' Law. Surface Energy & Surface Tension, Capillarity, Determination of Surface tension by Different Methods. Waves: Wave Motion= and Propagation, Simple Harmonic Motion, Vibration Modes, Forced Vibration, Vibration in Strings and columns, Sound waves and its velocity, Doppler Effect, Elastic waves, Ultrasonics, Practical Applications. Optics: Theories of light, Electromagnetic Waves, Velocity of light, Reflection, Refraction, Lenses, Interference, Diffraction, Polarization. Heat and Thermal Expansion, First Law of Thermodynamics, Specific Heat, Heat Capacities, Equation of state, Change of Phase, Heat Transfer, Second law of Thermodynamics, Efficiency, Entropy, Kinetic Theory of Gases.

Arch 141:
History of Architecture I- Ancient Period.
2 hours / week: 2.0 credits

Dwellings as a natural human phenomenon. Evolution of architecture through the times. Understanding the impact of economic, political, social, cultural and religious factors on architecture with subsequent study of early civilizations, such as, ancient Egypt, Mesopotamia, Persia etc.. Comparative study with examples from Aegean, Greek, Etruscan and Roman Architecture. Analyzing the events in a chronological structure. Cross influences.

Arch 151:
Aesthetics and Design
2 hours / week: 2.0 credits

The concept of aesthetics and its purpose. The role of aesthetics in the creative process.Relationship between art and design. Theories of design. Process and methodology of design and its existence as a non verbal language structured in a basic grammar of composition. Stylistic developments.

1.2

LEVEL TERM

Studio/ Sessional
courses

Arch 104 :
Design Studio II
9 hours / week: 4.5 credits

Understanding the articulation of form and space as basic compositional fundamentals. Elements of forms and spaces and their different aspects. Introduction to scale and proportion. Layering and sequence of space, solids and voids, transparency and opacity. Introduction to color and texture. Multi layer analysis of compositions of different media and finding three dimensional expressions through application of basic ordering principles. Introduction to elementary architectural spaces.

Arch 114:
Architectural Graphics II
6 hours / week: 3.0 credits

Understanding the basic principles of shade and shadow. Introduction to perspective as an architectural presentation technique. Understanding the fundamentals of perspective and shadeshadow through three dimensional studies of massmodels. Perspectives and proportions.

Arch 124:
Computer graphics
3 hours/week: 2.0 credits

Computer graphics and its basics. Basic ideas about graphical software. 2-D and 3-d graphics with the help of different software such as Photoshop, Corel-draw etc. To understand and to use graphics and software in architectural presentation and design. Inter-software exchange of data to achieve best quality of presentation. Factors concerning optimum use of hardware and printing.

Theory
courses

Hss 103:
English II - Language composition Skills
3 hours/week: 3.0 credits

Writing skills, grammar review, paragraph writing, and writing essay from paragraph. Specific applications include writing formal letter, resume / CV, report, memo, etc. Reading skills include reading for main ideas, using contexts for vocabulary, scanning for details, making inferences. Oral presentations cover oral reports, interviews and communication over telephone.

Arch 133:
Environment and Design I- Climate and Design
2 hours/week: 2.0 credits

Study of man-environment relationship. Analysis of different climatic forces and their influences on built environments. Factors of comfort. Design criteria for achieving comfort. Study on Energy efficient architecture with special emphasis on principles of thermal design, natural ventilation, recycling of resources and other climatic factors.

Arch 143:
History of Architecture II- Europe
2 hours / week: 2.0 credits

Introduction to arts, ideas and architecture of the European societies beginning from the early Christian era. The change of ideas through the later ages and the subsequent changes in architecture. Developments of architecture in the Byzantine, Romanesque, Medieval, Gothic, Renaissance, Baroque and Rococo periods.

Math 173:
Calculus and Solid Geometry
2 hours / week: 2.0 credits

Calculus: Definition of limit, continuity and differentiability, successive and partial differentiation, maxima and minima. Integration by parts, standard integrals, definite integrals. Area under a plane curve in Cartesian co-ordinates. Solid Geometry: system of co-ordinates, distance between two points. Section formulae. Direction cosines. Equations of planes and straight lines. Shortest distance between two given straight lines. Standard equations of sphere and elli soid, Tangent planes.

Optional
courses

Arch 103:
Art Appreciation
2 hours / week: 2.0 credits

The concept of Art. Art as an expression of the materialculture. People and Art. The early developments of art and its purpose. Understanding the evolution of Art through the ages with special references to the stylistic movements in the field of Art. Critical analysis of individual art work. Criticism of art in a particular context. Methodology of artistic criticism.

Arch 193:
Music Appreciation
2 hours / week: 2.0 credits

Music and its form. Ordering principles of music. The concept of musical order in India and the West. The system of raga vs. western classical music. Understanding of Music composition with reference to their background and their composers. Relationship between music and architecture. Methodology of musical criticism.

Based on the compositional framework carried on from early studios, the second year studio is the first step to introduce function through simple object or product design. The process at this level begins with both scientific and intuitive search on the assigned task, to identify individually a specific idea/challenge that the project offers; the design then becomes a response to that idea/challenge. The scale and challenges of projects at this level varies from simple object design to architectural projects with simple programmatic requirements; nonetheless the process remains same.

Year TWO

2.1

LEVEL TERM

Studio/ Sessional
courses

Arch 202 :
Design Studio III
9 hours / week: 6.0 credits

Introduction of man in the Form-Space relationship. Study of ergonomics. Understanding the human perception of space and built form with emphasis on the study of scale, proportion, color, texture etc. through design of simple functional spaces.

Arch 212:
Graphic Art
2 hours / week: 1.0 credits

Introduction to the basics of graphic art. Elements of graphic art. Typography. Techniques of composition and reproduction using different presentation media. Use of computer in graphic design.

Arch 222:
Photography
2 hours/week: 1.0 credits

Principles of photographic compositions. Understanding the basic techniques of photography such as exposure, depth of field, control of light etc. Introduction to Architectural photogphy, documentation and preparation of portfolio.

Theory
courses

Arch 231:
Environment and Design II-
Visual and Sonic Environment
2 hours/week: 2.0 credits

Understanding the importance of visual and sonic environment perception.The physical nature of light and its relationship with the built environment. Factors of daylight and its prediction technique. Supplementary and artificial lighting in architecture. Day light and human responses. Introduction to architectural acoustics, properties of sound, the fundamentals of sound perception, generation and propagation. Behavior of sound in enclosed spaces. Principles of acoustics design of rooms of speech, music and multi-purpose use. The concept of noise control, criteria for noise control design and acoustical measurements.

Arch 241 :
History of Architecture III-
Indian Buddhist and Hindu
Periods
2 hours/week: 2.0 credits

Introduction to the development of Architecture in the Indian subcontinent beginning from the Indus valley civilization. The changes in the Buddhist and Hindu era through the ages with emphasis on their architectural developments. Understanding the context and links.

Arch 261:
Building and Finish Materials
2 hours / week: 2.0 credits

Introduction to materials available to the local building industry and their classification. Aspects and properties of different building and finish material. Techniques of use of different materials and their details. The quality of construction and finishes. Problems and solutions for new materials and experiments, case study.

Arch 271:
Basic Planning
2 hours / week: 2.0 credits

Understanding the basic concept of planning as a design tool. Origin and evolution of settlements and cities. Cities in the ancient, classical, medieval, neo-classical and modern era. Industrial revolution and changes in the character of cities. New thoughts and ideas in planning after the industrial revolution. The spatial theory of size, spacing and distribution of central places. Rank-size rule.

CE 281:
Structure I- Mechanics
2 hours / week: 2.0 credits

Introduction to analytic mechanics, Understanding Force, its components and resultants, coplanar and concurrent force system, statically determinate and indeterminate structure, force equilibrium, centroid, moment of inertia of areas, simple truss, flexible chords.

Optional
courses

Hss 201:
Environmental Psychology
2 hours / week: 2.0 credits

Introduction to psychology and its relevance in architectural studies. Scope of psychologyin behavioral and environmental studies. Learning, Motivation, Sensation and Perception. Social influence on behavior. Conflict and adjustment.

Hss 291:
Economics and Development
2 hours / week: 2.0 credits

Principals of economics. The theory of consumer behavior. Nature of an economic theory. Economic theories and problems of developing countries. Marginal analysis. Optimization. Production function. Rational region of production of an architectural firm. The short run and the long run. Fixed cost and variable cost internal and external economics and diseconomies. Macro economics: savings, investment. National income analysis. Inflation. Monetary, fiscal and trade policies and planning with reference to Bangladesh.

2.2

LEVEL TERM

Studio/ Sessional
courses

Arch 204 :
Design Studio IV
9 hours / week: 6.0 credits

Introduction to multiple space design in single use structure. Handling the Interrelationship among functions, forms and spaces. Indoor-outdoor relationship. Analysis of site forces and circulation pattern. Dealing overlapping and conflicting factors. Field and literature survey and information processing. Conscious application of design theories.

Arch 214:
Art and Sculpture
3 hours / week: 1.5 credits

Introduction to artistic and architectonic volumes. Understanding their multi-dimensional aspects with special focus on handling of different materials. Brief introduction to contemporary trends in sculpture. Sculpture and public spaces.

Arch 224 :
Computer Aided Design and Drafting
3 hours / week: 1.5 credits

Basic two-dimensional drawings and three-dimensional modeling using CAD software. Understanding the efficiency of the software as a complete design and drafting tool. Production of scaled drawings and architectural presentations.

Theory
courses

Arch 243 :
History of Architecture
IV-Indian Muslim Period
2 hours/week: 2.0 credits

Early Muslim invasion in the Indian subcontinent and the impact of subsequent socio-economic changes in the field of architecture. Understanding the cross-cultural influences and the change in the building technology. Development in the Sultanate and Mughal period.

Arch 253 :
Development of Ideas
2 hours/week: 2.0 credits

Understanding the complexities of idea formation. Development of ideas through study of the precedence. Movements in architecture. Basic theories of architecture related to use of points, line, plane, form, volume and space. Overview of theories and application of architectural proportion, scale and composition. Principles of spatial and formal organization. The source generation and transformation of architectural elements. Forms and spaces. Self management of the development of ideas. Conscious interventions.

Arch 263:
Construction Methods and Details
2 hours / week: 2.0 credits

Learning to analyze construction from an architect's point of view. Understanding the concepts of different structural system.Types of structure and their methods and techniques of construction. Foundation, floor, wall and roof systems. Use of different types of modules. Moisture and thermal protection of floor, wall and roof. Doors and windows. Details of kitchen, bathroom and stair. Elevators and escalators. Aspects of detailing. Detail and creativity.

CE 283 :
Structure II- Basic Mechanics of Solids
2 hours / week: 2.0 credits

Shear force and bending moment diagrams of statically determinate structures, Introduction to stress and strain, stresses and strain in members subjected to tension, compression, shear and temperature changes, welded and riveted joints, mechanical properties of materials. Fundamental concepts of stress and strain, mechanical properties of materials, stresses and strains in members subjected to tension, compression, shear and temperature changes, joints: welded and riveted, shear force and bending moment diagrams for statically determinate beams and frames.

Optional
courses

Arch 233 :
Design in the Tropical Area
2 hours / week: 2.0 credits

Critical analysis of the regional factors. Study of the relationships between architecture and the climatic characteristics of tropical regions. Investigation of the problem and understanding the mechanism of air and moisture movement, surface condensation rain penetration etc. Means of wetness control and passive cooling in buildings. Comparison of alternative solutions and understanding the secondary implications of environmental control decisions.

Arch 293 :
Ecology
2 hours / week: 2.0 credits

Basic ecological aspects and their relationship with the built environment and other human interventions.

Incorporation of structural systems within the spatial framework. Exploring the detailed characteristics of different kind of structural systems, such as postlintel, post-slab, wall-slab etc. Understanding the problems of dealing with multiple functions with emphasis on form-space relationship. Ideas in architecture tracking the contemporary trends.

Year THREE

3.1

LEVEL TERM

Studio/ Sessional
courses

Arch 302 :
Design studio V
12 hours / week: 8.0 credits

Incorporation of structural systems within the spatial framework. Exploring the detailed characteristics of different kind of structural systems, such as post-lintel, post-slab, wall-slab etc. Understanding the problems of dealing with multiple functions with emphasis on formspace relationship. Ideas in architecture tracking the contemporary trends.

Arch 312 :
Working Drawing I-
Construction Drawing
3 hours / week: 1.5 credits

Understanding the importance of construction drawings in the design and the construction process. Exploring the advantage and limitations of drawings as tool of conveying information. Working drawing exercise of plans, elevations and sections with necessary details of kitchen, stair, toilet etc. Detail and shop drawings. Material-specific directive for construction.

Arch 322 :
Cost estimation
2 hours / week: 1.0 credits

Understanding estimation. Cost analysis of the various items of construction, determination of cost of construction. Balance between cost and quality, Preparation of tender documents, rules, regulations and obligations. Preparation of schedules, control of cost, case studies.

Theory
courses

Arch 341:
History of Architecture V-
Modern
2 hours/week: 2.0 credits

Industrial revolution and the subsequent change in the social order and in architecture. Development of new materials and techniques. The search for the stylistic expression and the resultant developments of different trends in the 19th and the 20th century. Change in the philosophy of architectural education and its impact. Modernism and the modern masters.

Mech 361:
Building Services I- Mechanical
2 hours/week: 2.0 credits

Mechanical: Review of basic concepts and definitions. Different aspects of air conditioningpsychometric chart, Calculation of cooling load, air conditioning systems, air handling and distribution, design of ducts. Air conditioning equipment. Fire hazards, fire fighting methods. Vertical transportation, types of elevators, determination of size and quantity of elevators. Handling of traffic. Escalators and moving ramps.

CE 381:
Structure III- Mechanics of
Solids
2 hours / week: 2.0 credits

Analysis of flexural and shearing stresses in beams, principal stresses, direct integration and area moment methods for finding slopes and deflections in statically determinate beams. Indeterminate beam analysis, buckling of columns.

Optional
courses

Arch 363 :
Building Technology
2 hours / week: 2.0 credits

Understanding the importance of technical aspects of architectural design. Construction techniques of different spatial and structural volumes dome, vault, shell etc. Techniques of rapid construction prefabrication and modular technology. Getting acquainted with the recent experiments on new materials and construction technology in Bangladesh and abroad.

Arch 371 :
Theory and Practice of
Planning
2 hours / week: 2.0 credits

Understanding planning as a basic tool of organization. Meaning of planning and its scope. Different planning approaches. Planning theories. Planning process- traditional vs. modern planning. Multi-disciplinary nature of planning. Systems approach, decision theory and conflict management. Advocacy and corporate planning. Planning and public policies. Planning decisions and applications in the Dhaka city master plans.

3.2

LEVEL TERM

Studio/ Sessional
courses

Arch 304 :
Design Studio VI
12 hours / week: 8.0 credits

Complex building problems with public functions. Dealing with increased scale, technicalities of structures and building services emphasizing innovative ideas incorporating formal and functional expressions.

Arch 314:
Working Drawing II- Production Drawing
3 hours / week: 1.5 credits

Introduction to the system of referencing in the working drawings. Getting familiar with working drawing symbols and conventions, building and safety codes. Preparation of complete working drawing documents of a recent studio project of the student.

Arch 324 :
Materials and Construction Workshop
2 hours / week: 1.0 credits

Practical class, shop drawing preparation, construction site visit. Lectures and demonstrations on soil test, foundation, brick work, paint, carpentry and electrical matters etc.

Theory
courses

Arch 343 :
History of Architecture- Contemporary
2 hours/week: 2.0 credits

Issues of complexity and contradiction in the contemporary architecture. The multi-valence of contemporary society and its influence on architecture. The issues of meaning in architecture beyond modernism. The impact of information technology on the contemporary ideas and architecture. Architecture after the masters.

Arch 353 :
Urban Design I- Space and form
2 hours/week: 2.0 credits

Understanding the essence of urbanism. Historical development of urban spaces. The physical urban fabric and its constituents. Meaning and the perceptual aspects of urban form in time-space relationship. The techniques and principles of urban design. Urban designdefinition and aim. Urban Design as an analytical tool- different approaches.

CE 363 :
Building Services- Plumbing
1 hours / week: 1.0 credits

Viewing plumbing aspects from an architect's point of view. Understanding the plumbing layout and its relationship with the built form. Different technical aspects of plumbing - water supply, drainage, sewage and load analysis. Plumbing in high-rise buildings.

CE 363 :
Building Services- Electrical
1 hours / week: 1.0 credits

Introduction to electrical design. Getting acquainted with problems of power supply in large scale buildings. Presentation of electrical drawings. Electrical units and standards, electrical networks and circuit theorems. Alternating current, RLC series and parallel circuits, introduction to electrical wiring for residential, commercial and industrial installations and buildings. Illumination and different types of lighting.

CE 383 :
Structure IV- Steel and Timber Structure
2 hours/week: 2.0 credits

Different types of trusses, analysis of trusses for wind and static load, design of truss sections, introduction to allowable stresses, design of steel columns, beams and timber structures.

Optional
courses

Arch 303 :
Interior Design
2 hours / week: 2.0 credits

Definition of Interior Design. Difference between Interior Design and Interior Decoration. Elements of Interior Design. Principles of Interior Design. Area of specialization for interior design. Properties and categories of color. Use of color scheme. Factors influencing color scheme. Way of securing light in interior. Lighting design. Internal structure wall ceiling and stair. Internal finishing and soft furnishing. Different types of furniture and joints (wood to wood, wood to metal, metal to metal). Interior-scaping.

Arch 393 :
Building Types
2 hours / week: 2.0 credits

Understanding the importance and purpose of classifying buildings by types. Study of different aspects of various building types and their unique characteristics. Functional technical and morphological characteristics of different building types.

Placing architecture in the social context. Comprehending the complex socioeconomic and cultural forces and their architectural manifestations. Architecture of spiritual and emotional content. Introduction to the urban issues and scale. Accommodating details, materials and practicality.

Year FOUR

4.1

LEVEL TERM

Studio/ Sessional
courses

Arch 402 :
Design Studio VII
15 hours / week: 10.0 credits

Placing architecture in the social context. Comprehending the complex socio-economic and cultural forces and their architectural manifestations. Architecture of spiritual and emotional content. Introduction to the urban issues and scale. Accommodating details, materials and practicality.

Arch 422 :
Interior Design- sessional
3 hours / week: 1.5 credits

Acquaintance with interior materials. Preparation of design and installation drawings for interior. Furniture layouts and total interior design for different types of interior spaces as bank, studio, restaurant, shopping mall etc. Detail design and drawing for kitchen and toilet. Detailed drawings for suspended ceiling, partition dry wall, artificial lighting. Furniture design and details of furniture joints. Selection and placement of indoor plants in different interiors. Study of different practical interior projects and their construction process.

Theory
courses

Arch 441 :
Architecture and Society of Bengal
2 hours/week: 2.0 credits

Learning to infer. Explore the available text and architectural remains of Bengal. The cultural history of human development in different areas of this region as depicted in architecture. Vernacular architecture and social interaction. The evolution of 'society-power-structure-architecture'. The influence of the various art and cultural movements.

Arch 451 :
Landscape Design
2 hours/week: 2.0 credits

Learning to understand the scope, scale and details of landscape design as compared to architecture. Principles of landscape design. Historical references. Environmental issues and landscape design. Elements of landscape design. Site survey and its development. Organization of various outdoor spaces - their positioning and hierarchy. Circulation and linkages among outdoor spaces. Planning and gardening. Addressing the different technical aspects in landscape design.

CE 481 :
Structure V- Reinforced Concrete Structure
2 hours/week: 2.0 credits

Observing structure from an architect's viewpoint, Introduction to reinforced concrete design: working stress design method, analysis of reinforced beams by WSD; design of one-way and two-way slabs. Flat slabs, flat plates, waffle slabs, ribbed slabs, Introduction to ultimate strength design (USD).

Optional
courses

Arch 401 :
Architectural Conservation
2 hours / week: 2.0 credits

Importance of conservation in the long term formation of cultural context. Meaning, nature and scope of conservation. Conservation principles and guidelines. Preservation, restoration, renovation, reconstruction, revitalization and area conservation. History of conservation. Conservation laws and practices. Issues of conservation, legislation, finance, regulating bodies, the role of government and public. Techniques of measured drawing and field survey.

Arch 491 :
Urban Design II- Analysis and Application
2 hours / week: 2.0 credits

The contemporary complexity and contradictions of urban design. Urban design as a process. Responsive environment - its permeability, variety, legibility, appropriateness, richness and personalization. Image and form of a city and normative theories. Theories of good city form. Urban growth, textures and networks. City models and city design. Urban quality of life.

4.2

LEVEL TERM

Studio/ Sessional
courses

Arch 404 :
Design Studio VIII
15 hours / week: 10.0 credits.

Dealing with large-scale master plan oriented problems. Investigating the multiplicity of contemporary urban issues like- housing, rehabilitation, urban renewal, urban infill etc. Understanding the tools and techniques of conservation.

Arch 424 :
Landscape Design
3 hours / week: 1.5 credit

Field level study and analysis of landscape elements. Analysis of site and environment. Study on the technical aspect of landscape design. Exercises following the principles of landscape design to the extent of working details.

Theory
courses

Arch 463 :
Survey Techniques and Analytical Methods
2 hours/week: 2.0 credits

The importance of precision survey techniques from an architect's point of view. Surveying principles. Physical surveys - Chain survey, traverse survey, plane table survey, levels and leveling, contours and layout surveys. Social Survey and its types. Design and plan of research objective- goal, variables and universal, selection of methods. Design of questionnaire, pretest and pilot survey. Collection of data and data processing.

Arch 473 :
Human Settlement
2 hours/week: 2.0 credits

The essence of dwelling as a basic architectural concept. An overview on traditional dwelling and existing situation in the country putting emphasis on the urban areas. Introduction of major policies, reforms, legislation and movements in the housing and settlement sector. Observing the present scenario of Dhaka and different constraints regarding Housing issues. Examines mass housing problems throughout the ages with emphasis on housing for low and middle-income groups. Housing design issues both social as well as technological. Standards for different contemporary concepts , standards as well as technology that are already practiced around worldwide and their scope in our context.

CE 483 :
Structure VI- Elements of Building Structure
2 hours/week: 2.0 credits

Different aspects of architectural engineering, preliminary analysis of column sections in multistoried buildings, reinforced concrete columns - stocky and long, approximate analysis of multistoried buildings for gravity and lateral loads. Grids, approximate analysis. Preliminary design of shear walls, introduction and preliminary design of domes, arches and shells, Vierendeel trues, folded plates. Classification of shells. Introduction, analysis and preliminary design of prestressed beam sections.

Optional
courses

Arch 403 :
Urban Anthropology
2 hours / week: 2.0 credits

The relevance of anthropology in architectural discipline. Social anthropology its origin and development. Ethnography and ethnology. Tools of anthropological research and their applications in architectural studies and analysis. Interaction between people and the built environment. Impact of social stratification and its plurality on architecture.

Arch 471 :
Rural Planning
2 hours / week: 2.0 credits

Organized rural development as an important national factor. Meaning of development. Characteristics of rural settlements. Nature and scope of integrated rural development. Issues in rural development: population, urbanization and migration, human resource development. Planning policies and strategies for rural development and their implementation.

Introducing professional issues in architecture. Learning to take independent decisions based on real life situation. Probing on design problems within specific realistic settings and context. Carrying out the design process as a whole- beginning from the feasibility of project to the extent of prepar tion of construction documents.

Year FIVE

5.1
LEVEL TERM

Studio/ Sessional
courses

Arch 502 :
Design Studio IX
15 hours / week: 12.0 credits

Introducing professional issues in architecture. Learning to take independent decisions based on real life situation. Probing on design problems within specific realistic settings and context. Carrying out the design process as a whole- beginning from the feasibility of project to the extent of preparation of construction documents.

Arch 512 :
Seminar I- Preparation
3 hours / week: 1.5 credits

Developing the skill of selecting relevant and vital topics of investigation in the current field of architecture. Working out a research paper with the help of literature, field survey and other sources. Development of writing skills and referencing. Learning the oral and written presentation techniques.

Theory
courses

Arch 561 :
Specifications and Codes
2 hours/week: 2.0 credits

System of preparing database of sources. Making systematic comparisons. Written details answering what, where, when, how in relation to drawn details for building construction. Specifying materials and methods of installation and precautions.

Hss 571 :
Construction Management
2 hours/week: 2.0 credits

Management: its meaning, scope and objectives. Functions and nature of management. Importance and scope of management in the construction industry. Planning: objectives and types of plans, limits of planning, logistics and strategy. Organizing: grouping of activities, delegation of authority and decentralization. Organization, committee, span of supervision. Direction: motivation and co-ordination. Controlling: steps in control, requirements. Analytical tools and techniques in construction management.

Optional
courses

Arch 503 :
Bio-Climatic Design
2 hours / week: 2.0 credits

Introduction to principles of the philosophies of climatically conscious design. Use of plantations and shading. Orientation and sun-path analysis. Using natural resources for ventilation and lighting in an energy conscious way. Designing for environment.

Arch 533 :
Environment and Design IV-
Environment Responsive
Design
2 hours / week: 2.0 credits

Introduction to the environmental issues. Architecture and environment. Historical references. Biosphere and ecosystem. Environmental impact assessment (EIA). Comprehending the relationship of building with immediate and distant surroundings.

5.2

LEVEL TERM

Studio/ Sessional

courses

Arch 504 :
Design Studio X - Thesis
15 hours / week: 12.0 credits

The final project required for completion of the B. Arch. program of study. Culmination of every factors learned within the five year span. Selection and execution of the project will be individual. Projects (realistic/ hypothetical/ idea) with adequate significance would be considered. Concentration would be on complete design solution having keen investigative understanding of the design problem within the contextual framework of each individual project. The professional level of attainment will be the goal.

Arch 524 : Dissertation
4 hours / week: 2.0 credits

Supporting documentation and analysis in report form for Arch. 504: Design studio X [thesis] revealing the student's study and research within the relevant field of study. Case study and analysis. The report would reflect the whole of the design process, formulation of design concept and execution.

Arch 514 :
Seminar II- Presentation
3 hours / week: 1.5 credits

Continuation and further development of Seminar one. Final presentation of the preparation taken in the previous semester.

Theory

courses

Arch 553 :
Professional Practice
1 hours/week: 1.0 credits

Architecture as a profession. The relationship between the architect and the client, government agencies and other construction professionals and consultants. The position and role of the architect duties, responsibilities and obligations. Details of contracts. Commissioning of jobs. The range of services. Professional ethics. The managerial and administrative aspects of construction. The legal framework. The architect as a member of larger community. Communication and correspondence.

Hss 573 :
Principles of Accounting
2 hours/week: 2.0 credits

Principles and scope of accounting. Basic definitions. The accounting procedure. Detail study of cost: general, objectives and classification. Overhead costing. Cost sheet under job costing, operating costing and process costing. Marginal, costing: tools and techniques, costvolume- profit analysis. Relevant costing. Profitability. Planning and budgeting.

Arch 600 :
Internship- Professional Training
12 week: non-credit course

This course is compulsory but carries no credit. Students has to work in an architectural firm for a period of twelve weeks any time after the sixth term. Emphasis is on working drawing, site supervision and meeting of deadlines.