

LEVEL - 2 / TERM - I

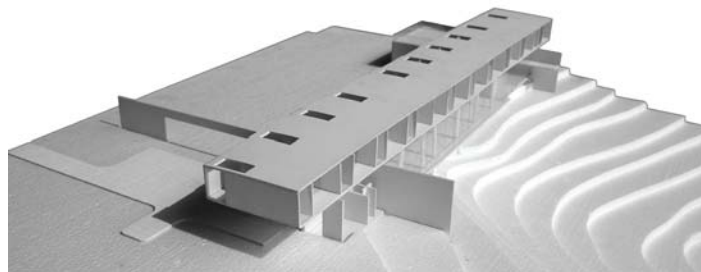
Core Sessional

Consideration of human well-being as an architectural agenda. Study anthropometrics and ergonomics; study of relationship of human needs and design. Introduction to the sense of scale and proportion. Studio projects will study human body and activity as a source of scale for architecture. Awareness to the environmental features as one of the forces of architecture.

Mechanical and free hand architectural rendering. Presentation drawings using various techniques in black & white and colour. Complex perspective drawings exploring shade-shadow and reflection. Introduction to Computer Aided Drawings (two-dimensional).

Core Theory

A critical evaluation of architecture of Europe studying its root in Etruscan, Greek and Roman period continuing through the ages of Early Cristian, Byzantyne, Romanesque and Gothic period and revival of classical thoughts in Renaissance periods. Climatic, geographic, social, technical, religious influences on architecture and a comparative study of different architectural styles of various regions of Europe in these periods.



ARCH 202
Design Studio III
8.00 Credits. 12 Hrs/Wk
(Pre req ARCH 104)

ARCH 212
Architectural Graphics II
3.00 Credits. 6 Hrs/Wk

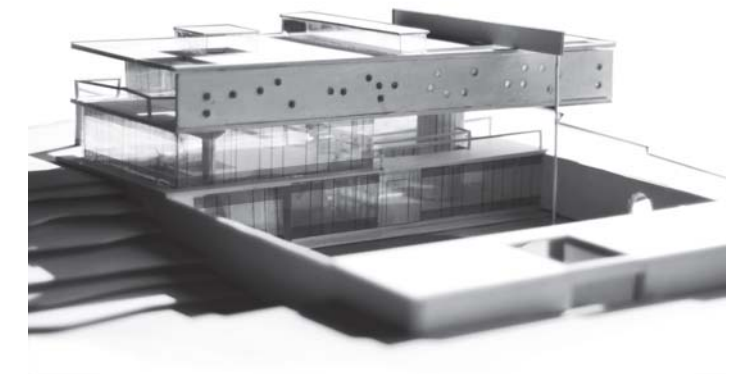
ARCH 231
Architecture of Western World
2.00 Credits. 2 Hrs/Wk

ARCH 251
Visual Environment
2.00 Credits. 2 Hrs/Wk

CE 265
Structure -I : Mechanics
2.00 Credits. 2 Hrs/Wk

Physical nature of the visual environment; key photometric terms and relationships. Human responses to external vision factors. Scalar illumination and the Illumination vector; Low contrast and High Contrast lighting environments; Daylight in architecture; Sky types; Daylight factor; Changing nature of Daylight; Daylight Prediction techniques; Design Sky illumination and Designing with Daylight under different climatic conditions.

Force; equilibrium; Free Body Diagrams; Resultants and Components; Coplanar Concurrent Forces; Moments and Parallel Coplanar Forces; Centroids; Moment of Inertia of Areas; Fundamental Concepts of Stress and Strain; Mechanical Properties of Materials.



Core Sessional

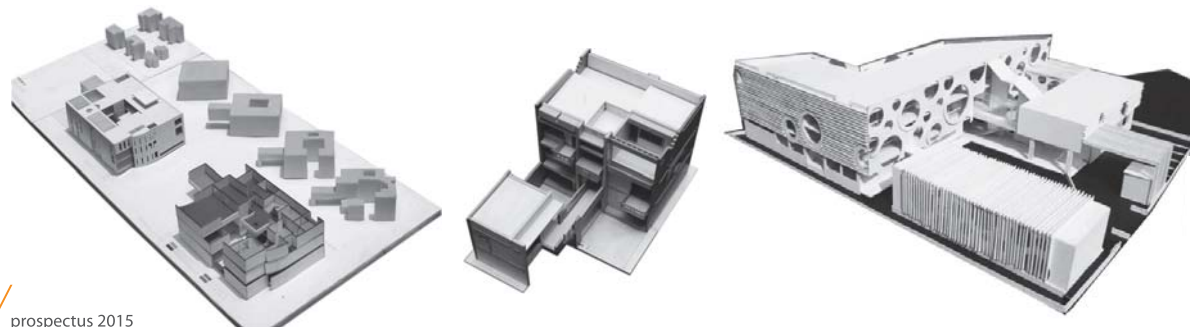
Understanding of basic concepts of architectural forms and identification of spaces in terms of exterior-interior, served-service, activity-circulation etc. Focus will be placed on selected case studies to comprehend the underlying relationship of form and function in architecture. Development of the ability to creatively analyze function in order to formulate ingenious architectural program to generate site specific architectural form in three dimensions.

Optional Sessional

Introduction to Computer aided architectural presentation and delineation. Use of digital input and mass storage devices. Introduction to Vector and Raster graphics software.

Understanding the designer's role as a mediator between the manufacturer and consumer. Extending beyond mere pragmatic solutions by a proper understanding of visual properties of materials, manufacturing mechanisms, technical support together with cultural and contextual implications.

Basic techniques used in graphic design. Use of typography, photography, illustration, computer generated image etc. to express idea, concept and philosophy of design. Introduction of different reproduction techniques. Compilation of works, preparation of portfolio and interactive presentation technique.



ARCH 204
Design Studio IV
8,00 Credits. 12 Hrs/Wk
(Pre req ARCH 202)

ARCH 222
Digital Communication in Architecture I
1.50 Credits. 3 Hrs/Wk

ARCH 224
Product Design
1.50 Credits. 3 Hrs/Wk

ARCH 226
Graphic Art
1.50 Credits. 3 Hrs/Wk

ARCH 235
Architecture of Modern Period
2.00 Credits. 2 Hrs/Wk

ARCH 255
Architectural Acoustics
2.00 Credits. 2 Hrs/Wk

HUM 231
Philosophy
2.00 Credits. 2 Hrs/Wk

CE 267
Structure-II: Basic Mechanics of Solids
2.00 Credits. 2 Hrs/Wk

Core Theory

Understanding modernism, modernity, modernization as different facets of major socio-political and technical shift in the post renaissance Europe. Tracing the proliferation of architectural theories and practice in Neo-Classical French tradition, in the works of Perrault, Laugier, Viollet-le-Duc, Boullée, Ledoux and Labroust. Development of steel and glass architecture in France and England. Introduction to Art nouveau. Significance of Chicago school and Bauhaus. Introduction to the works of modern masters such as Le Corbusier, Frank Lloyd Wright, Mies Van Der Rohe and Alvar Alto.

Introduction, historical overview, classifications and scopes. Fundamentals of sound, noise and vibration; measurements and ratings; human perception. Relationship of sound sources, sound fields and listeners. Speech and music acoustics. Noise and vibration. Sound reinforcement systems. Acoustical practice, design approaches for different types of functions and spaces, pre and post-construction phases, acoustical privacy, acoustical elements. Standards and codes, evaluation of acoustical performance. Introduction to computer aided modeling, simulation, auralization and analytic methods.

Nature and Scope of Philosophy, Functions of Philosophy; Methods of Philosophy: Dogmatism, Criticism and Analysis; Theories of the Origin of Knowledge: Authoritarianism, Empiricism (Francis Bacon, Protagoras, John Locke, George Bishop Berkeley, David Hume, John Stuart Mill, G. E. Moore etc); Rationalism (Socrates, Plato, Aristotle, Rene Descartes, Leibniz, Spinoza, Hegel, Bradeley, Bosanquet), Intuitionism and Critical Theory of Kant; Theories of Evolution: Mechanical, Teleological, Creative and Emergent; Oriental Philosophy: Indian Philosophy, Chinese Philosophy and Japanese Philosophy; Contemporary Philosophy: Phenomenalism and Existentialism, Postmodernism, Logical Positivism, Pragmatism, Structuralism, Continental Philosophy and Frankfurt School. Applied Philosophy: Environmental Philosophy.

Stresses and strains in members subjected to Tension, Compression, Shear and Temperature changes; Shear Force and Bending Moment Diagrams for statically determinate Beams and Frames; Flexural and Shearing Stresses in Beams; Principal Stresses; Deflection in statically determinate Beams by Area-Moment Method.

Core Sessional

Concentration on the principles and processes behind generating architectural forms. Emphasis will be given to understand the intertwined relationship of form and space with a view to accentuate experiential qualities in architecture. Introduction of the basic relationships between structural logic and formal expression.

Optional Sessional

Computer generated 3D modeling and rendering in different platforms. Developing understanding of complex form, lighting condition and material mapping in simulated environment.

Study and analysis of three-dimensional aspects of different volumetric forms. Exercises based on the use of different types of materials.

**ARCH 302
Design Studio V**
8.00 Credits. 12 Hrs/Wk
(Pre req ARCH 204)

**ARCH 322
Digital Communication in
Architecture II**
1.50 Credits. 3 Hrs/Wk

**ARCH 324
Sculpture**
1.50 Credits. 3 Hrs/Wk



**ARCH 331
Architecture of
Indian Sub Continent**
2.00 Credits. 2 Hrs/Wk

**ARCH 351
Landscape Design**
2.00 Credits. 2 Hrs/Wk

**CE 365
Structure-III:
Reinforced Concrete Design**
2.00 Credits. 2 Hrs/Wk

**EEE 373
Electrical and Electronic
Installation for Buildings**
2.00 Credits. 2 Hrs/Wk

Core Theory

Study of architecture in the Indian sub-continent with special emphasis on the styles of the Vedic, Buddhist, Hindu and Islamic periods extending up to the 17th century.

Introduction to principles and elements of landscape design. Historical references. Biosphere and eco-system. Organization of various outdoor spaces. Environment and design. Site development. Location and sequence of outdoor activity. Circulation and linkages. Planting and gardening. Utility, services and maintenance.

Fundamentals of Reinforced Concrete Design; Concept of WSD and USD Methods; Analysis and Design of Reinforced Beams by USD; Design of Slabs, One-way and Two-ways; Reinforced Concrete Columns and Buckling; Introduction to Shear-Walls, Earthquake Resistant Structural Systems.

Introduction to electricity: basic principles, electrical circuit theorems for DC & AC. Illumination: lighting fundamentals, various light sources, lighting for various applications. Introduction to electrical distribution wiring system, substation layout and renewable energy system in a building.

