

18ARC31-ARCHITECTURAL DESIGN-III

CONTACT PERIODS: 8(Studio) per week

VIVA MARKS: 150

PROGRESSIVE MARKS: 150

OBJECTIVE: Sense of Place: Towards understanding the transformation of an architectural space into *a Place*.

OUTLINE:

“Everything about this kitchen was typical of a traditional kitchen. There was nothing special about it. But, perhaps it was just the fact that it was so very much; so naturally, a kitchen that had imprinted its memory indelibly on my mind. [...] memories like these contain the deepest architectural experience that I know. They are the reservoirs of the architectural atmosphere and images I explore in my work as an architect.”

— Peter Zumthor, *Thinking Architecture* (1998, p.7-8)

When we as humans create a '*place*', we define it in multiple ways. We attribute it with an importance and an identity. We select the siting of the '*place*' in a geographical location, its activities, boundaries, and social neighborhoods, we give it meaning, infuse it with memories, and give it significance.

While *space* is created by physical and notional boundaries, *place* is characterized by the forces that signify it with an "architectural atmosphere". We could attempt to describe *place* as the complete human spatial experience - the spectrum of how one studies a *place* ranges from the abstract, physical/formal *place*, to the one that lives in one's mind and memories.

A *place* may be indoors or outdoors, permanent or temporary, private or layered until it becomes very public, imbued with history, meaning, values and memories or new, radical, rebellious and looking into the future.

However, it is through the eyes of architecture that *place* is viewed at this semester.

COURSE OF STUDY – The primary architectural goal is going from **spaces** to **places**. Hence contextual elements and factors influencing the built environment should be identified and studied in detail.

KEYWORDS – site/situation, neighborhood, memory, identity, belonging, defining characteristics/particularity of place(activity, need, function, scale, hierarchy, perception).

MODE OF STUDY

A. EXPERIENCE

1. Visits to different *places*, sacred places and the mundane, bridging places, edges of various places, entrance places, transitional places, dwelling places, semi-public and public places - to name just a few.

The attempt here is to understand the *experience of a space*, that can enable a person to define its particularities as *a place*. An understanding of being "inside" that particular place, versus "outside" it, needs to be explored.

Students need to experience and study at least 3 different types of *places*, and what differentiates these from others.

B. EXPLORATION

1. Sketches, models, drawings, photographs, collages, short films, that can illustrate the specificity of that particular place. Architectural representation through various media that evoke the *essence of a place*.
2. Studies of how scale, proportions, physicality, materiality and situation, affect a *place* and how it is perceived.
3. Studies of less tangible aspects of a *place*, like identity, belonging, memory, and stories, through discussions, documentation, and other media. **Their architectural representation is an important conclusion of this exploration.**

This period could include book readings, seminars, and field trips.

C. DESIGN TASKS

2 design projects (minor & major) that address the study, exploration and expression of the *Sense of Place* in all its aspects (suggested projects include but or not limited to temporary shelters, pavilions, context specific community driven built forms like health centers).

Example: Place: The front entrance of dwellings. Visit to a traditional neighbourhood, and a contemporary neighbourhood. What is the nature of this place? What are the moments of transience? What is the character of space before and after the front? Rangolis/kollams, thresholds, gateways, doors, verandahs/jaglis, toranas, porches.

After careful study, a design task based on the sense of place in the same context can be formulated.

An emphasis on the translating of one's observations well - primarily in architectural drawing as well as in other methods that support it.

12 Weeks for all A, B, & C, including Design Tasks. These need to be scheduled in order A, B and then C.

NOTES:

1. Discussions, book reading as well as writing, seminars, field trips, and group as well as individual study are important for the development of the architecture student's understanding of essential concepts such as that of a *Sense of Place*.

2. The **DESIGN TASKS** *should be interspersed* with the experience and exploration of the idea of *Sense of Place*, and not necessarily attempted separately.

COURSE OUTCOME:

To understand how architectural space becomes more than just a physical entity because of the way it has been located, sited, edged, layered, and imbued with values and meaning to transform it into its own entity or '*place*'.

SHAPE OF THINGS TO COME

The enquiry through exploration and creation of a place from its bare spatial existence leads the architecture student to the next phase where he/she studies the particularity of **the dwelling**.

All spaces "house" activities, whereas a dwelling has a deeper, and more specific character. As one progresses through the course, we move from a wider, more general study of architecture, to a more complex, specific, and nuanced understanding of different areas of architectural design.

REFERENCES:

1. Steen Eiler Rasmussen, "Experiencing Architecture", MIT Press, 2nd Edition, 1962
2. Edward Relph , "Place and Placelessness", Sage Publications, 2008
3. David Seamon , "Life Takes Place", Routledge , 2018
4. Yi Fu Tuan , "Space And Place: The Perspective of Experience", Univ Of Minnesota Press , 2001
5. Gaston Bachelard , "The Poetics of Space", French university publishing , 1958
6. D'Arcy Wentworth Thompson , "On Growth and Form", Cambridge University Press, 1917.
7. Martin Heidegger, "Building, Dwelling, Thinking, (Poetry, Language, Thought), 1951
8. Tim Cresswell , "Place: An Introduction", John Wiley & Sons, 2014
9. Marc Auge , "Non-Places: An Introduction to Supermodernity" , Verso, 1995
10. Peter Zumthor, Brigitte Labs-Ehlert "Atmospheres: Architectural Environments. Surrounding Objects", Birkhauser, 2006
11. Christian Norberg Schulz, "Genius Loci: Towards a Phenomenology of Architecture", New York : Rizzoli , 1979
12. Christopher Alexander, "The Timeless Way of Building", Oxford University Press , 1979
13. Doreen Massey, "For Space", Sage Publications , 2005
14. Christian Norberg Schulz, "Architecture: Presence, Language, Place", 1996
15. Peter Zumthor , "Thinking Architecture", Lars Müller, 1998

18ARC32–MATERIALS AND METHODS IN BUILDING CONSTRUCTION-III

CONTACT PERIODS: 5 (1 Lecture + 4 Studio) per week

VIVA MARKS : 75

PROGRESSIVE MARKS : 75

OBJECTIVE: *To acquaint the students with construction practices pertaining to RCC, floors, roofs and flooring alternatives, masonry plastering and paint finishes.*

OUTLINE:

MODULE 1

Introduction to RCC Slabs: one way, two-way slabs, cantilever slabs, sloping RCC roof, one way continuous, and two ways continuous.

1. **RCC one way slab and one-way continuous slabs :** Principles and methods of construction.
2. **RCC two way slab and two-way continuous slabs:** Principles and methods of construction.
3. **RCC cantilever slabs and sloping slab:** Principles and methods of construction.

MODULE 2

4. **Vaults & domes I:** Principles and methods of construction including techniques and details of form-work. Construction of Masonry Vaults and Domes – Concepts of Reinforced Concrete Domes and Vaults.
5. **Vaults & domes II:** Concepts and construction of Reinforced concrete domes and vaults with formwork design.

MODULE 3

6. **Introduction to Floor finishes including Toilet flooring:** Mud flooring, Murrum flooring, and Stone flooring in marble, granite, tandur/kota stone, other flooring in mosaic, terrazzo, ceramic tiles, wooden flooring and polished concrete: Laying, Fixing and Finishes.
7. **Introduction to Paving:** Cast in situ concrete including vacuum dewatered flooring, concrete tiles, interlocking blocks, clay tiles, brick and stone.

MODULE 4

8. **Introduction to internal and external masonry plastering and paint finishes:** Materials – Paints, varnishes and distempers, emulsions, cement based paints. Constituents of oil paints, characteristics of good paints, types of paints and process of painting different surfaces. Types of varnish, methods of applying varnish and French polish and melamine finish.

MODULE 5

9. **Method of plastering (Internal and External):** smooth, rough, textured, grit plaster etc. Use of various finishes viz., lime, cement, plaster of Paris, buffing etc.
10. **Introduction to wet Cladding:** wet cladding in stone, marble, etc. including toilet cladding.
11. **Alternative roofing:** Jack Arch, Madras terrace, and stone slab roof.

Note - Minimum one plate on each construction topic. Site visits to be arranged by studio teachers. Study of material applications in the form of portfolio. This is for progressive marks.

REFERENCES:

- 1) Chudley , Construction Technology, ELBS, 1993
- 2) Barry, Construction of Buildings, East West Press, 1999

18ARC33 – CLIMATOLOGY

CONTACT PERIODS: 3(Lecture) per week

DURATION OF EXAM: 3 Hrs

THEORY MARKS:100

PROGRESSIVE MARKS : 50

OBJECTIVE: *To develop the knowledge required for understanding the influence of Climate on architecture including the environmental processes which affect buildings, such as thermal, lighting, etc.*

OUTLINE:

MODULE 1

1. **Introduction to Climate-1:** The Climate-built form interaction; some examples. Elements of climate, measurement and representations of climatic data. Classifications and Characteristics of tropical climates.
2. **Introduction to Climate-2:** Major climatic zones of India. Site Climate: Effect of landscape elements on site/micro climate.
3. **Thermal comfort-1:** Thermal balance of the human body, Thermal Comfort Indices (Effective temperature, corrected effective temperature, bioclimatic chart, tropical summer index by CBRI Roorkee). Measuring indoor air movement: Kata-thermometer, and measuring indoor radiation: Globe thermometer.

MODULE 2

4. **Thermal comfort-2:** Calculation of Overheated and Under heated period (based on air temperature only) for locations in Climatic zones and their optimization in terms of solar heating and Passive cooling desired.
5. **Sun-path diagram:** Solar geometry & design for orientation and use of solar charts in climatic design.
6. **Thermal performance of building elements:** Effect of thermo-physical properties of building materials and elements on indoor thermal environment. Convection, Radiation, concept of Sol-air temperature and Solar Gain factor.

MODULE 3

7. **Thermal Heat gain or loss:** Steady state and periodic heat flow concepts, Conductivity, resistivity, diffusivity, thermal capacity, time lag and 'U' value. Calculation of U value for multilayered walls and Roof, Temperature Gradient, Inference of time lags from Graphs for walls and Roof. Construction techniques for improving thermal performance of walls and roofs. (Effect of density, Insulation, and Cavity).

MODULE 4

- 8. Shading devices:** Optimizing Design of Shading devices effective for overheated periods while allowing solar radiation for under heated periods for different wall orientations.
- 9. Natural ventilation:** Functions of natural ventilation, Stack effect due to thermal force and wind velocity. Air movements around buildings, Design considerations and effects of openings and external features on internal air flow and Wind shadows.

MODULE 5

- 10. Day Lighting:** Nature of natural light, its transmission, reflection, diffusion, glare. Advantages and limitations in different climatic zones, North light, Daylight factor, components of Daylight devices.
- 11. Climatic Design considerations-1:** Literature study of relevant traditional and contemporary building examples.
- 12. Climatic Design considerations-2:** Two Indian case studies and one international for each climatic zone.

REFERENCES:

1. Koenigsberger, Manual of Tropical Housing & Buildings (Part-II), Orient Longman, Bombay, 1996.
2. Arvind Kishan, Baker & Szokolay, Climate Responsive Architecture, Tata McGraw Hill, 2002.
3. Martin Evans; Housing, Climate, and Comfort; Architectural Press (1 March 1980)
4. Donald Watson and Kenneth Labs; Climatic Building Design - Energy-Efficient Building Principles and Practice; McGraw-Hill Book Company, 1983.
5. Mili Majumdar (Editor); Energy Efficient Buildings in India; The Energy and Resources Institute, TERI (28 February 2009)
6. Baruch Givoni; Passive and Low Energy Cooling of Buildings; John Wiley & Sons (1 July 1994).
7. Energy Conservation Building Code (ECBC) 2007; Bureau of Energy Efficiency, Ministry of Power, Government of India.

18ARC34 – HISTORY OF ARCHITECTURE – III

CONTACT PERIODS: 3 (Lecture) per week

DURATION OF EXAM: 3 Hrs

THEORY MARKS: 100

PROGRESSIVE MARKS: 50

OBJECTIVE: *To provide an introduction to the culture and architectural currents of Western Architecture during Renaissance, Baroque, Neo Classical and Modern periods. To identify the socio-cultural changes aptly reflected in the typology of buildings through this phase.*

OUTLINE:

MODULE 1

- 1) **Introduction to Renaissance Architecture:** Background and influences on Renaissance Architecture. Characteristics of Renaissance Architecture in general. Monumental, public and residential spaces.
- 2) **Renaissance Architecture Examples:** St Andrea, Mantua and Palazzo Rucellai by Leon Alberti, Villa Rotunda (Capra) by Palladio, (New) St Peter's Rome by Michelangelo and others, St Paul's London by Sir Christopher Wren. Baroque Architecture: General characteristics of Baroque. Eg: St Peter's Piazza by Bernini. Monumental, public and residential spaces.
- 3) **1750-1900 Transitional Period Architecture:** A brief account of the situation before the changeover to Modern architecture in Europe. Palladian Revival in Britain, Greek revival and Gothic Revival. Transitional Period Examples: Chiswick House, London, Mereworth castle, Kent, St Pancras Church, London, West Minister Palace, London, Arc de Triomphe, Paris. Monumental, public and residential spaces.

MODULE 2

- 4) **Impact of Industrial Revolution in Europe:** The Social, economic and political changes effected, new requirements, functions, new materials and technological developments. New proto types- Ex. Bridges, Expositions, Factories and Railway stations-Use of metal and glass. palace. Monumental, public and residential spaces.
- 5) **Early Modern Architecture I:** Modern movement-Arts and crafts, Art-Nouveau, Italian futurism-The Chicago School and rise of early sky scrapers-Ex Monadnock building, Carson pierre Scott, store in NewYork-Public and private spaces Casa Mila, , Sagrada Familia church etc.

MODULE 3

- 6) **Early Modern Architecture II:** Destijl movement, Brutalian and Bahaus, Schroder House, Ronchamp, Modern sky scraper, Mies Van der Rohe (Glass and Steel), Bahaus School design-Examples for the above movements for Public and private spaces and Monumental approach(eg Sky scrapers)- IIT Campus buildings- Public and private spaces.

- 7) **Modern Architecture III:** Influence of concepts and ideas generated by FL Wright - Robie House, Falling Waters, Guggenheim Museum, Johnson Wax Tower. Le Corbusier- Villa Savoy, Domino House, Five points of Architecture. Mies Van der Rohe-Less is more, minimalism, Glass and steel tower - Seagram.
- 8) **Modern Architecture IV:** Walter Gropius, Bahaus building, Fagus shoe Factory, Harward campus, Team approach. Louis Sullivan-Chicago Auditorium, Wain Wright Building, Theory of Sky scrapers. Alvar Aalto and his works.

MODULE 4

- 9) **Modern Architecture V:** International style, works of Eero Sarinen- TWA and Kennedy Airports. Richard Neutra- Lovell Beach House. Phillip Johnson- Glass House, Museum Building. Oscar Niemeyar-Work in Brazilia- Legislature building and Church. Monumental, public and private spaces.
- 10) **Modern Movement-VI:** New Ideas – Archigram Britain-Walking City, Floating City etc. Kenzo Tange- Japan-Floating City and Shimbon Office Building. Moshe Safdie- Housing in Isreal. Sir Buck Minster Fuller-US Pavilion in Expo-67, Dymaxion Car, Bucki Dome- Public and private Building and spaces.

MODULE 5

- 11) **Modern Movement-VII:** Brutalism- Works of Le Corbusier, Peter and Allison Smith, James Sterling-Udse of Raw concrete, Ronchamp, Nun’s Quarters-Lyon, Library-Oxford University, elementary School by Smithsons- development of Corporate Sky Scrapers- NewYork- Having multiple uses and tinted glass cladding, Rock Feller Centre-NewYork- Public and Private examples.
- 12) **Modern Movement-VIII:** Parallel movement-Soviet Union of 1920"s- Constructivist movement, Modernism and works of Vladimir Tatlin- contributions of Engineers like Pierre Luigi Nervi- Rome Olympic Buildings, Pirelli Tower Italy, Gaustav Eiffel-Eiffel Tower, bridges, Statue of Liberty base, Candela etc.

NOTE : Progressive Marks A) individual presentation by a Student on one topic. B) Group studies of chosen issues. C) Impact of modernism on India.

REFERENCES:

- 1) Frampton Kenneth ; “Modern Architecture – A Critical History”.
- 2) Fletcher, Bannister ; “A History of Architecture”.
- 3) Siegfried Gideon ; "Time, Space and Architecture".

18ENG35 BUILDING STRUCTURES – III

CONTACT PERIODS: 3(1 Lecture+2 Pract./Tuto./Semi.) per week

VIVA MARKS:75

PROGRESSIVE MARKS: 75

OBJECTIVES:

- 1) *To understand the fundamental principles and structural behaviour of concrete buildings in withstanding gravity, lateral (seismic and wind), and other environmental forces.*
- 2) *To understand the mechanics of reinforced concrete, and the ability to design and proportion structural concrete members including slabs, beams, and columns.*

OUTLINE:

- 1) Introduction to Reinforced Cement Concrete.
- 2) Properties of materials - with emphasis on cement, fine aggregates, coarse aggregates, admixtures
- 3) Mechanics of Reinforced Cement Concrete
- 4) Loads on the structure as per IS 875
- 5) Concrete structural system design
- 6) Design of one way continuous slab - as per IS 456[using the BM coefficients given in IS 456]
- 7) Design of singly reinforced continuous beam as per IS 456 (using the BM & SF coefficient given in IS 456).
- 8) Design of Tee beam as per IS 456 - using limit state philosophy.
- 9) Design of staircase as per IS 456 - using limit state philosophy.
- 10) Design of Axially loaded short columns.
- 11) Design of isolated column footing.
- 12) Data given drawing for different cases viz.
 - a. Singly reinforced beam
 - b. Doubly reinforced beam
 - c. One way slab
 - d. Two way slab - for at least 2 cases
 - e. Staircase detailing (dog legged staircase)
 - f. Cantilever slab.

REFERENCES:

- 1) Dr. S. Ramamrutham, "Design of Reinforced Concrete Structures", Dhanpat Rai Publishing Co Pvt Ltd, January 2010.
- 2) Dr.H.J.Shah, "Reinforced Concrete Vol 1 (Elementary Reinforced Concrete)", Charotar Publishing House Pvt. Ltd.; 11th Edition edition (2016)
- 3) Dr. S.S. Bhavikatti, "Design Of R.C.C. Structural Elements", Volume1., New Age International, 2007
- 4) IS 456-2000 Plain and Reinforced Concrete - Code of Practice
- 5) SP 34 (1987): Handbook on Concrete Reinforcement and Detailing

18ARC36 – THEORY OF ARCHITECTURE-I

CONTACT PERIODS: 3(Lecture) per week

PROGRESSIVE MARKS : 50

DURATION OF EXAM: 3 Hrs

THEORY MARKS: 100

OBJECTIVE: *To acquaint the students with the basic aesthetic principles involved in architectural design and the grammar of architectural aesthetics.*

OUTLINE:

MODULE 1

- 1. Definition of Art and role of Art in Society:** Role and meaning of art, various types of arts-fine arts, performing arts, commercial arts, industrial arts, folk arts, abstract art, visual arts, spatial arts, temporal arts, pop art etc., relationship of architecture with other arts like Painting and Sculpture.
- 2. Principles of Aesthetics and Architectural Composition -1** – Unity, Balance, Proportion, Scale in Architectural composition. Illustrations and its application to the practice of design with historical as well as contemporary buildings.

MODULE 2

- 3. Principles of Aesthetics and Architectural Composition -2:** Contrast, harmony, accentuation, restraint in Architectural composition. Illustrations and its application to the practice of design in historical as well as contemporary building.
- 4. Principles of Aesthetics and Architectural Composition -3:** Repose, vitality, strength in Architectural composition. Illustrations and its application to the practice of design in historical as well as contemporary building.

MODULE 3

- 5. Organizing principles of Aesthetics and Architectural Composition -1:** Symmetry, asymmetry, hierarchy, datum, axis, rhythm in Aesthetics and Architectural Composition and its application to the practice of design.
- 6. Spatial organizations of Masses in Architecture -1:** Centralized and clustered; Illustrations of centralized and clustered massing in spatial organizations of masses in Architecture and its application to the practice of design with both historical as well as contemporary buildings.

MODULE 4

- 7. Spatial organizations of Masses in Architecture -2:** linear, radial, grid organization. Illustrations of linear, radial, grid organization in spatial organizations of masses in

Architecture and its application to the practice of design with both historical as well as contemporary buildings.

- 8. Ornamentation in Architecture:** Historical perspective of the use of ornament in buildings and use of ornament as a decoration to embellish parts of a building. Use and need of ornament in architectural design – different types of ornamentation in buildings.
- 9. Ornamentation in Architecture Criticism**–Argument against ornamentation. Ideas of architect Adolf Loos (Ornament and Crime); Ornaments as economically inefficient and morally degenerate, reduction of ornament or lack of decoration as the sign of an advanced society.

MODULE 5

- 10. Materials, Materiality and Tectonics:** Aesthetic and structural potentials in Architecture of materials like brick, timber, stone, concrete, glass.
- 11. Style in Architecture:** Basis for classification of styles including chronology of styles arrangement according to order that changes over time. Evolution of styles; reflecting the emergence of new ideas as reaction to earlier styles as a result of changing of fashions, beliefs, technology etc.
- 12. Perceptions in Architecture:** Experience of architecture in basic psychological and physiological terms. Way in which human minds and bodies respond to space, light, texture, color, and other architectural elements.

REFERENCES:

1. Form, Space and Order” by Francis DK Ching
2. Design Fundamentals in Architecture” by Parmar VS
3. Theory of Architecture by Paul Alan Johnson
4. Creating Architectural Theory by John Lang

18ARC37 – COMPUTER APPLICATIONS IN ARCHITECTURE - I

CONTACT PERIODS: 3 (Pract./Tuto./Semi.) periods/ week with 1-2 periods of instruction and Remaining hrs of working on CAD workstation for submission of Assignments.

PROGRESSIVE MARKS : 100

OBJECTIVE: *To develop and train students to use computers and digital media as tools to explore, develop, evaluate and present architectural ideas. To equip the student with a range of digital tools and techniques in 2D drafting, 3D modelling, and vector graphics.*

OUTLINE:

1. Introduction to 2D drafting software: Using latest version of relevant CAD software:
 - a. 2D commands, viewports, dimensions, annotations. Time problem introduction;
Classroom exercises such as measured drawing of studio (windows, doors and staircases included), architecture School (windows, doors and staircases included) etc.
 - b. Understanding layers, paper space Vs model space, line weights, print set up and Modelling of Walls, Doors, Windows, Stairs etc.
2. 2D drafting: Presentation of time problem; plan, sections, elevations of a floor of a single storied building of II / III semester architectural design studio project.
3. Introduction to 3D modelling: Latest version of relevant 3D modelling software – software interface, demonstration of 3D modelling commands required to convert 2D project (of 2D drafting) into 3D as a time-problem.
4. Simple 3D modelling: Presentation of time problem; drawing quickly with basic shapes in 3D, viewing models in 3D, adding detail to Models in 3D space, use of cameras, material applications. Presenting models.
5. Rendering & Visualization: Presentation of time problem, generating 3D Model and introduction to concepts of visualization using rendering engines such as VRay, Flamingo, 3D studio Max, or any other appropriate software.
6. Introduction to concepts of Building Information Modelling (BIM) using REVIT or other relevant BIM software.
7. Introduction to graphics editing tools:
 - a. Introduction to appropriate techniques to model walls, insert fenestration, curtain walls & staircases.
 - b. Lecture and Classroom exercise to convert into BIM project, relationship of other Industry standard file types (.dwg for AutoCAD or Trimble Sketchup input files or from any other relevant software.).
 - c. Lecture and Classroom exercise to further utilize rendering and visualization

III SEM B.ARCH. (CBCS - 2018 SCHEME) - DETAILED SYLLABUS

8. a. Concepts of image scanning, image editing, effects and filters.
 - b. Classroom exercise to demonstrate use of Image editing for simple architecture design project projects. For e.g., rendering of 2D drawings, adding nature to 3D visualizations.
9. Graphics editing tools: – Presentation of any simple project to illustrate skills attained in 2D drafting, 3D modeling, graphics editing tool.

NOTE: A portfolio of exercises and assignments done in the class to be submitted for progressive marks.

REFERENCES:.

1. Website and training material of relevant Image/Graphics editing software
2. Learning resources on Building Information Management (BIM).
3. Vast amount of CAD learning resources available on the Internet.
4. Vast amount of learning resources for Graphics editing tools available on the Internet.

18ARC38- ELECTIVE I

CONTACT PERIODS: 3 (Lecture/Studio/Practical)per week

PROGRESSIVE MARKS: 50

a. ARCHITECTURAL PHOTOGRAPHY

OBJECTIVE

To impart the skills of taking aesthetically appealing and creative architectural photographs through the use of appropriate cameras/ lenses and lighting conditions.

OUTLINE

1. Introduction to architectural photography. Various types of compositions framing, silhouette photography.
2. Use of various cameras, lenses and accessories, handling of equipment.
 - a . SLR,DSLR cameras, lenses for different focal lengths for various contexts
 - b. Use of wide angle, normal, tele, zoom, macro, close up lenses.
 - c. Filters- UV, Skylight, colour filters, special effect filter.
3. Shutter speeds- slow, normal and high and their various applications.
4. Apertures- use of various apertures to suit different lighting conditions and to enhance depth of fields.
5. Selection of ISO rating to match various lighting conditions.
6. Optimizing selection of shutter speed, aperture and ISO.
7. Twilight and night photography.
8. Various uses of photography- documentation, presentations, competitions, lectures, etc.
9. Creative photography/ photo renderings, for special effects using software.
10. Play of light and shadows to achieve dramatic pictures.
11. Effects of seasons, inclusion of greenery, foliage, clouds, human scale etc.
12. Architectural photography as a profession, law on photography.

REFERENCES:

1. Schulz, Adrian. Architectural Photography: Composition, Capture, and Digital Image Processing, Rocky Nook, 2012.
2. McGrath, Norman . Photographing Buildings Inside and Out, Watson-Guption Publications, 1993.

b. VERNACULAR ARCHITECTURE

OBJECTIVE:

To inculcate an appreciation of vernacular architecture; as an expression of local identity and indigenous traditions of the culture.

OUTLINE:

The course would be conducted through seminars and field work.

1. Introduction to the approaches and concepts to the study of vernacular architecture, history and organisation of vernacular buildings of different regions in the Indian context; with an understanding of forms, spatial planning, cultural aspects, symbolism, colour, art, materials of construction and construction techniques. Study of factors that shape the architectural character and render the regional variations of vernacular architecture - geographic, climatic, social, economic, political and religious aspects, local materials and skills available in the region etc.
2. Methods of observation, recording, documenting and representing vernacular architecture with examples.
3. Study and documentation of vernacular architecture of selected building typologies. Rigorous documentation, accuracy in measuring, collating the recorded information and drawing them up in specified formats and scales are part of this module.
4. A critical review of the relevance and application of vernacular ideas in contemporary times. An appraisal of architects who have creatively innovated and negotiated the boundaries of 'tradition' while dynamically responding to the changing aspirations and lifestyles of the world around.

REFERENCES:

1. Carter, T., & Cromley, E. C. Invitation to Vernacular Architecture: A Guide to the Study of Ordinary Buildings and Landscapes. Knoxville: The University of Tennessee Press. 2005
2. Cooper, I. Traditional buildings of India. Thames and Hudson Ltd, London, 1998
3. Oliver, P. Encyclopaedia of Vernacular Architecture of the World, Cambridge University Press, 1997

c. VISUAL COMMUNICATION

OBJECTIVE: *To impart the techniques of visual communication.*

OUTLINE:

1. Visual communication used in day to day life, print, electronic media, advertisement and in art / architecture context - differences and similarities.
2. Understanding meaning generation process in visual language.
3. Devices of visual language - space, context, scale, associate, transform, crop, frame, distort, abstract, fragment, exaggerate, and subvert, irony.
4. Pictograms and ideograms.
5. Understanding the differences between logo and symbol. Process of logo creation.
6. Hierarchy in visual content being presented.
7. Relationship between text and images and their interrelationships.
8. Cultural context of meaning generation and aesthetic principles involved.

REFERENCES:

1. Barnes, Susan B. An Introduction to Visual Communication: From Cave Art to Second Life, Peter Lang Publishing Inc, 2011
2. Bergström, Bo. Essentials of Visual Communication, Laurence King Publishing, 2009

OPEN ELECTIVE:

The college has the discretion to offer an open elective in the areas/subject/field other than already covered under the syllabus . The college can decide to offer need based electives depending on the availability of the expertise. However, the college will require to submit the title of such electives with the course outline stating learning objectives and mode of delivering the content to the Registrar/ Registrar (evaluation) within the 15 days of the commencement of the semester.