

DESIGN STUDIO I

ENAR 101

Lecture : 2
Tutorial : 0
Practical : 8

Year : I
Part : I

Course Objectives:

This course aims to provide students with a solid foundation in architectural design by teaching them the basic principles of elements, space, form and order. Students will also learn how to apply their creativity and innovation to various design projects, and how to use different materials to make models. Through hands-on exercises, students will develop their design skills, critical thinking and problem-solving abilities, which are essential for the field of architecture.

1 Introduction (8 hours)

- 1.1 Design Elements: The fundamental components points, line and plane to be used in visual arts and design to understand these elements for creating effective and visually engaging designs
 - 1.1.1 Point
 - 1.1.2 Line
- 1.2 Forms: To create the two-dimensional and three-dimensional shapes that forms a composition
 - 1.2.1 Plane (Two dimensional)
 - 1.2.2 Solid (Three dimensional)
 - 1.2.3 Inter-relations (Explore the connections between points, lines, planes, and solids, providing a comprehensive understanding of form in visual perception and design)

2 Design Principles of Composition (8 hours)

- 2.1 Principles of Composition
 - 2.1.1 Axis
 - 2.1.2 Symmetry
 - 2.1.3 Hierarchy
 - 2.1.4 Datum
 - 2.1.5 Repetition
 - 2.1.6 Transformation
- 2.2 Salient Features of Composition: To compose an architectural design, achieving a harmonious and visually appealing composition using several key elements (1.1 and 2.1)
 - 2.2.1 Unity and balance
 - 2.2.2 Scale and proportion
 - 2.2.3 Mass and void

3 Spatial Understanding of Architectural Components (8 hours)

- 3.1 Measured drawing
- 3.2 Form development
- 3.3 Design development
- 3.4 Model making

4 Project (6 hours)

- 4.1 Final project "Architectural Elements Exploration" (Familiarize with fundamental architectural elements and its design principles)
- 4.2 Outcome of the project: Students gain a foundational understanding of architectural elements, principles of composition, and effective presentation skills

Practical (120 hours)

1. Simple sketches that explore the concept of a point with variations in size, spacing, and arrangement
2. Lines and their expressions playing with different line types, lengths, and orientations
3. Explore the concept of planes through the creation of simple 2D shapes with variations in size, orientation, and arrangement
4. Explore three-dimensional space by creating basic solid forms (Cubes, spheres, pyramids) and experiment with light and shadow to emphasize the solidity of the forms
5. Composite composition of the previously learned elements and create visual arrangements that showcase the relationships between points, lines, planes, and solids
6. Principles of each composition and its each salient features
7. Measured drawing of simple existing space (e.g., a room, corridor) with accurate dimensions, proportions, and details of the selected space
8. Analyze the measured drawings and identify key spatial elements
9. Experiment with different geometric forms and layouts inspired by the existing space
10. Analysis on historical and cultural significance of the chosen architectural element
11. Sketching and model making: Create detailed sketches and small-scale models representing different designs of the chosen architectural element
12. Presentation of sketches, drawing details and its analysis with models and explaining design choices and influencing factors

Final Project: A project work with field visit should be done in Nepalese context to understand use of basic elements (e.g., door, window, staircase etc.) in Architectural practice.

Medium of Presentation: Poster Presentation, Models, Digital Applications etc.

Note: *Creative Corner: For creativity there are class works integrated with the above units. For Examples: 1. Poster Design, 2. Collage based on thematic statement. 3 Model making based on scraped materials: Sculpture /Abstract*

References

1. Ching, D.K. (2022). Architecture graphics. John Wiley & Sons.
2. Ching, D.K. (2014). Architecture form, space, and order. John Wiley & Sons.
3. Makstutis, G. (2018). Design process in architecture: From concept to completion.
4. Gill, R. W. (2011). Rendering with pen and ink. London: Thames and Hudson.
5. Jain, R. (2010). Relationship between the design ideology and ways of expressing it through work of Zaha Hadid. Nagpur: MM College of Architecture.
6. Telang, M. (2005). Aesthetics, basic design and creativity in architecture. Pune: Sinhgad College of Architecture.