

ARCHITECTURAL GRAPHICS II

ENAR 151

Lecture : 2
Tutorial : 0
Practical : 3

Year : I
Part : II

Course Objectives:

This course introduces two and three dimensional compositions, colour application and presentational techniques in architectural drawing and understanding architectural graphics as a means of visual communication. This course provides students with basic knowledge of graphical and presentational techniques through various exercises.

1 Sciography (10 hours)

- 1.1 Introduction: Terms of sciography
- 1.2 Types of source of light: Natural and artificial
- 1.3 Principles of sciography
- 1.4 Importance, use and application of sciography
- 1.5 Types of sciography: Orthographic sciography, parallel projection sciography and perspective projection sciography
- 1.6 Various exercises in sciography from design element to architectural drawings
- 1.7 Application of sciography in geometrical and architectural drawings

2 Colour Theory and its Applications (6 hours)

- 2.1 Colour
 - 2.1.1 Colour wheel
 - 2.1.2 Colour scheme
 - 2.1.3 Properties of colour
 - 2.1.4 Effects of colour - Physical, psychological and emotional
- 2.2 Application of colours in architectural buildings (Exterior and interior)
- 2.3 Composition of collage/ magazine cover

3 Appropriate Rendering Techniques in Buildings (6 hours)

- 3.1 Floor plans including furniture layout
- 3.2 Elevations
- 3.3 Sections
- 3.4 Site plan and master plan
- 3.5 Landscape
- 3.6 Shadow construction in plans and elevations
- 3.7 Perspective drawing (Exterior and interior)

4 Architectural Rendering Development Skill in Different Mediums (8 hours)

4.1 Rendering in architectural building (Exterior/interior)

- 4.1.1 Pencil rendering
- 4.1.2 Pen and ink rendering
- 4.1.3 Pencil colour/water colour rendering

Practical

(45 hours)

1. Exercise on sciography projection of different solid figures
2. Exercise on sciography projection into wall and ground plane (Solid objects)
3. Exercise on sciography projection of roof overhang into wall plane
4. Exercise on sciography projection of walls and roof overhang into ground plane
5. Exercise on sciography projection of colonnades and arches into wall and ground planes
6. Exercise on sciography projection of different steps
7. Exercise on sciography projection of chimney stacks and dormer window in pitched roof (Two-way slope roof)
8. Exercise on sciography projection of a set of a residential building (Elevations, site plan with landscape elements)
9. Exercise on colour wheel
10. Colour scheme
11. Tint and tone
12. Application of colour in magazine cover/ collage
13. Rendering techniques on floor plans including furniture layout (Pencil medium)
14. Rendering techniques on site plan/master plan (Pencil medium)
15. Exercises on rendering techniques in different medium (Pencil colours, pen and ink and water colour)
16. Delineate a set of simple residence with shadow construction (Sciography) in any medium
17. Delineate a perspective view (Angular exterior view) of a set of simple residence in any medium
18. Delineate an interior perspective view (Parallel perspective) of living space of a simple building in any medium including flooring, furnishing and fixtures

References

1. Ching, F.D.K. (2015). Architectural graphics. John Wiley & Sons.
2. Venugopal, K. (2022). Engineering drawing & graphics. New Age International.
3. Bhatt, N.D., Panchal, V.M. (2010). Engineering drawing: Plane & solid geometry. Charotar Publishing House.
4. French, T.E., Vierck, C.J., Foster, R.J. (1993). Engineering drawing and graphic technology (Latest Edition). McGraw-Hill.

5. Doyle, M.E. (2006). Color drawing: Design drawing skills and techniques for architects, landscape architects, and interior designers. John Wiley & Sons.
6. Gill, R.W. (1973). The Thames & Hudson manual of rendering with pen & ink (Latest Edition). Thames & Hudson.
7. Gill, R.W. (1991). Basic rendering: Effective drawing for designers, artists and illustrators (Latest Edition). Thames & Hudson.
8. Laseau, P. (2000). Graphic thinking for architects and designers (Latest Edition). John Wiley & Sons.
9. Halse, A.O. (1988). Architectural rendering: The techniques of contemporary presentation (Latest Edition). McGraw-Hill.
10. Lin, M.W. (1993). Drawing and designing with confidence: A step-by-step guide (Latest Edition). John Wiley & Sons.
11. Spence, W.P. (1988). Architecture: Design, engineering, drawing (Latest Edition). McGraw-Hill.