

DESIGN STUDIO VI

ENAR 351

Lecture : 0
Tutorial : 0
Studio : 10

Year : III
Part : II

Course Objectives:

The objective of the course is to develop the ability to design large-span buildings with complex functional requirements by integrating spatial organization, structural systems, construction techniques, and building services. It also fosters an understanding of the relationship between architecture and urban systems, particularly movement and public interface, through the design of building types such as arenas, auditoriums, exhibition halls, terminals, and industrial facilities.

- 1 Introduction (4 hours)**
 - 1.1 Nature, scope, size and scale of project
 - 1.2 Reflection on studio objectives
 - 1.3 Literature review and case selection
 - 1.4 Field research tools

- 2 Literature and Site Study (20 hours)**
 - 2.1 Theories, standards and regulations for large span complex building types
 - 2.2 Case studies (Secondary sources)
 - 2.3 Case documentation (Field visits)
 - 2.4 Site analysis
 - 2.5 Presentation of findings

- 3 Conceptualization (15 hours)**
 - 3.1 Program development (Literature, field studies and user analysis)
 - 3.2 Conceptual development
 - 3.3 Concept diagrams and study models
 - 3.4 Conceptual design presentation and feedback

- 4 Design Development (90 hours)**
 - 4.1 Architectural design and drawings
 - 4.2 Structural systems, spatial organization, materials and construction logic
 - 4.3 Integration of building services
 - 4.4 Drawings, models and 3D visualization

5 Final Design (15 hours)

- 5.1 Drawings, models and documentation report
- 5.2 Final presentation

6 Time Problem (6 hours)

Short-duration design exercise to assess the ability to synthesize program, spatial organization and structural and service integration.

References

1. Ching, F. D. K. (2014). Building construction illustrated. Wiley.
2. Farrelly, L. (2015). The fundamentals of architecture. Laurence King Publishing.
3. Hsieh, G. P. C. (1993). Structures for architects (Latest Edition). McGraw-Hill.
4. McGraw-Hill. (2003). Time-saver standards for architectural design. McGraw-Hill.
5. Neufert, E. (2012). Architect's data. Wiley-Blackwell.
6. Wilkinson, C. (2013). Super sheds: The architecture of long-span, large volume buildings. Butterworth-Heinemann.