DESIGN STUDIO V

ENAR 301

Lecture : 0 **Year : III**
Tutorial : 0 **Part : I**
Studio : 10

Course Objectives:
The objective of this course is to provide architectural principles and design concepts of medium to large-scale building structures in urban, semi-urban, and rural contexts. Emphasis will be placed on service-intensive, multi-storey buildings with advanced structural systems in dense urban settings, such as healthcare, hospitality, institutional, or multifunctional commercial facilities. By the end of this course students will able to integrate spatial, structural, and contextual considerations to create public or private buildings that respond to functional, cultural, and environmental needs with climate responsive building design and use of appropriate building construction technology and building materials.

1 Introduction (4 hours)

1.1 Studio project briefing: Project components; Target users; Project scale; Project objectives
1.2 Location and features of the proposed site
1.3 Design processes

2 Literature Review (10 hours)

2.1 Theoretical review
2.2 Design standards
2.3 Climate responsive designs
2.4 Building material and technology
2.5 Structural considerations
2.6 Inference and comparative analysis

3 Case Studies (15 hours)

3.1 National / international case studies
3.2 Secondary case studies - International case studies
3.3 Component based study
3.4 Inferences from case studies from analytical perspective

4 Site Analysis (10 hours)

4.1 Detailed study of the site features and its surroundings
4.2 Inferences from the site study, for developing site-specific designs

5 Program Formulation (8 hours)

5.1 Identification of the design project components
5.2 Formulation of detailed area/space requirements and calculations

6 Design Concept (15 hours)

6.1 Development of design concept and design approaches
6.2 Bubble diagram, zoning, conceptual drawings – 2D and 3D

7 Design Development (70 hours)

7.1 Development of design concept into detailed design
7.2 Detail site plan
7.3 Block model / conceptual model
7.4 Double line architectural floor plans with structural grid plan and schematic sections, elevations, building form, 3D sketches

8 Final Presentation and Submission (12 hours)

8.1 Submission of all detailed architecture drawings: Design concept, site plan, floor plans with layout, elevations, sections, 3D drawings and other supportive drawings
8.2 Detailed 3D model of building and site

9 Time Problem (6 hours)

9.1 Design of one specified facility or component in a specific given time
9.2 Produce architectural drawings as per the requirement of the topic given

References

1. Ching, F. D. K. (2020). Architecture: Form, space, and order (4th edition). Wiley.
2. Farrelly, L. (2013). The fundamentals of architecture. Laurence King Publishing.
3. Clark, R. H., Pause, M. (2012). Precedents in architecture (4th edition). John Wiley & Sons, Inc.
4. Crosbie, M. J., Watson, D. (2004). Time-saver standards for architectural design: Technical data for professional practice (8th edition). McGraw-Hill.
5. Neufert, E., Neufert, P. (2012). Architects' data (4th edition). Wiley-Blackwell.