



**School of Planning and Architecture: Vijayawada**  
(An institution of National Importance under the Ministry of Human Resource Development, Govt. of India)  
S.No. 71/1, NH-5, Nidamanuru, Vijayawada – 521 104, Andhra Pradesh, India

Department of Architecture

<b>Course:</b> 10110601 Architectural Design Studio- Functionally complex Buildings	<b>Class:</b> III rd Yr B. Arch VI Sem A.Y. 2017-18
<b>Instructors:</b> M. Kranti Kumar, G.Karteek, Mohan Vamsi , Karthik Ch, Yogesh Parekh, Parul Vyas	<b>Internal Assessment: 200</b>
<b>Contact Periods/ week:</b> 09 periods, (3 Lecture Hours and 6 Studio hours per week)	<b>External Theory Exam: 200</b>
<b>Time Table:</b>	<b>Total Marks: 400</b>
<b>Attendance:</b> Min 75%	<b>Credits: 6</b>
<b>Min. Passing Marks:</b> 40% each in Internal & External Assessment, 50% in Aggregate	

**Objective:**

The objectives of this studio are two fold. The first objective is to expose the students to the challenges of designing functionally complicated buildings, having a complex array of activities and services; The second objective is to familiarise the students to the task of coordinating integration of structural design and specialised building services in the framework of architectural design. The third objective is to let the students understand advanced construction technology and newer building materials.

**Out Line of the Course:**

The focus of the studio is on functionality and integration of advanced technology and services. The studio enables understanding the complex mechanisms of designing services intensive buildings in tight urban context, having multiple levels (above and/or under-ground). The special emphases are on utilitarian parameters, space optimisation, conformance with regulatory requirements, integration of structural systems and building services (HVAC, fire, electrical, communication, plumbing etc.) in architectural layout and construction technology. The studio encourages the students to explore modern automation and intelligent systems for building management and energy conservation. They will learn about site planning and landscaping in tight spatial context.

**LECTURE PLAN**

S. No.	Week	TOPIC OF CLASS LECTURE & DISCUSSION	CLASS ACTIVITIES & ASSIGNMENTS
1	Week 1	Introduction to Design Problem and the Site	Lecture session
2	Week 2	Discussion on nature of task, description, understanding of design principles with respect to the problem and Data Collection	Studio discussion and reference study from Library
3	Week 3	Data Collection on various aspects of the problem and Special Lecture on Building services (MEP)	Special lecture
4	Week 4	Stage-1 review on the topics assigned and relevant desktop studies	<b>Stage-1 Assessment</b>
5	Week 5	Background work for Case Studies	
6	Week 6	Study Trip - Undertaking relevant case studies	
7	Week 7	Presentation on Case Studies	<b>Stage-2a Assessment</b>
8	Week 8	Relevant lectures on Site Zoning and Landscape, Special Lecture on Energy Efficient Buildings	Special lecture
9	Week 9	Site Analysis, Assimilation of Literature, Site Analysis and Concept design with block Models	<b>Stage-2b Assessment, Submission of Study Model</b>
10	Week 10	Design Development and discussions with Massing and Conceptual Design Scheme	Specific Focus on Study Models
11	Week 11	Schematic Design and finalisation of the scheme	<b>Stage 3a Assessment</b>
12	Week 12	Design discussion and refinement	Specific Focus on Building Services

12	WEEK 12		
14	Week 13	Final Design Scheme	Demonstrated with Models and specific focus on services
13	Week 14	Final Design Scheme	Demonstrated with Models and specific focus on services
15	Week 15	Evaluation of the Final Design Schemes	Submission of portfolio
16	Week 16	Final Internal Jury	<b>Stage-3b Assessment</b>

S.No.	Category of Evaluation	Marks	Note
1	Assessment – 1	25	<i>The Marks allotted at each stage is tentative. Categories of evaluation may be increased or decreased (merged) on need-basis</i>
2	Assessment –2a	25	
3	Assessment –2b	50	
4	Assessment –3a	30	
5	Assessment –3b	70	

References:

1. Baiche, B. and Walliman, N. (2012). Neufert Architects Data, 4th Ed. Oxford : Wiley-Blackwell.
2. Chiara, J. D. and Michael, J. C. 2001. Time Savers Standards for Building Types. Singapore : McGraw Hill Professional.
3. Gauzin-Muller, D. (2002). Sustainable Architecture and Urbanism: Concepts, Technologies, Examples. 1st Ed. Basel : BirkhauserVerlag AG.
4. Huxtable, A-L. (1984). Tall Buildings Artistically Reconsidered.
5. Kloft, E. and Johann, E. (2003). High-rise Manual: Typology and Design, Construction and Technology, 1st Ed. Basel : Birkhauser Verlag AG.
6. Markus, K., Rollbacher, R., Herrmann, E., Wietzorrek, U. and Ebner, P. (2009). Typology+: Innovative Residential Architecture. Basel : BirkhauserVerlag AG.
7. Parker, D. And Wood, A. (2013). The Tall Buildings Reference Book. New York : Routledge.
8. Wood, A. and Ruba, S. (2012). Guide to Natural Ventilation in High Rise Office Buildings. New twofold. The first objective is to expose the New York : Routledge.

Signatures of the Instructors:

Head of the Department: