Lok Jagruti Kendra University
University with a Difference

Diploma in Architectural Assistantship

LJ Polytechnic

Course Code:025080301

Design Studio 3

Programme / Branch Name			Diploma in Architectural Assistantship			
Course Name	Design Studio 3				**Course Code**	025080301
Course Type	HSSC	BSC	ESC	PCC	OEC	PEC

Legends: HSSC: Humanities and Social Sciences Courses BSC: Basic Science Courses
ESC: Engineering Science Courses PCC: Program Core Courses
OEC: Open Elective Courses PEC: Program Elective Courses

1. Teaching and Evaluation Scheme

Teaching Hours / Week / Credits				**Evaluation Scheme**			
L	**T**	**P**	**Total Credit**	**CCE**	**SEE (Th)**	**SEE (Pr)**	**TOTAL**
0	0	12	6	100	-	200	300

Legends:
L: Lectures T: Tutorial P: Practical
CCE: Continuous & Comprehensive Evaluation
SEE (Th): Semester End Evaluation (Theory)
SEE (Pr): Semester End Evaluation (Practical)

2. Prerequisites

- ✓ Basic knowledge of public buildings
- ✓ Understanding of plans, elevations and sections
- ✓ Incorporate the knowledge of qualities of architectural spaces both built and open
- ✓ Drafting skills with proper line intensity

3. Rationale

The knowledge and appropriate application of the relationship between form & space helps the student to design multiple-volume buildings with relation to each other for a given site situation. Knowledge about the characteristic of architectural spaces both built & open and their use allows them to create functional `porosity' within the site. Also, knowledge about interlocking spaces & spaces linked by a common space helps the student in the spatial organization on-site, and knowledge of repetitive spaces, radial spaces & clustered spaces helps the student to functionally organize a layout. Knowledge of disciplines of structure, design parameters, spatial order, structure as order, space –structure- form co-relation.

4. Objectives

- ✓ To help the students to understand various types of public buildings & how to design it
- ✓ Analysis of context as a determinant of architectural character. Study of built form with special reference to climate, material, social & cultural context, the physical environment in reference of public building.
- ✓ Understanding about suitable structural systems as applicable to kinds of building help the student to know how a building practically stands.
- ✓ Analysis of different types of openings and their locations in a building with respect to climate that helps to design suitable architectural elements.

5. Contents

Unit No.	Unit Name	Topics	Learning Outcomes	% Weightage	Hours
1.	**Data Collection**	1.1. Importance of Design Studio 3. 1.2. Existing Public Buildings Topics, Library, Primary School, High School, Small Hospital, Old Age Home, Museum, etc. 1.3. Primary Data Collection: On-Site 1.4. Secondary Data Collection: From Books, Magazines, Internet, etc. Data Collection by Study of 'Public Buildings' Design Works of Students of Architecture Degree & Diploma Colleges Through Students Visits or Presentations by Experts from Both Industry and Other Institutes	• Analyze the Design of a Public Building • Identify Primary and Secondary Data • Describe Primary & Secondary Data Collection • Analyze the Form, Functional Clarity, Circulation Within the Building • Formulate Design Requirements for the Given Design Project	15	24
2.	**Development of Concept and Locating the Building on Site**	2.1. Building Orientation on Site – Margins, Wind Direction, Natural Light & Ventilation 2.2. Functional Relationship – Principles for Identifying the Functions of a Public Building, Formulation of Requirements, Derivation of the Form Keeping in Mind the Functional Requirements	• Prepare Conceptual Alternatives and Ideas Considering Various Design Parameters • Develop the Conceptual Alternatives Further Based on Design Parameters • Prepare a Functional Relationship Diagram Based on Requirements	15	28

3.	**Preparing Sketch Design**	3.1. Order of Spaces Based on Organizing Principles like- Axial, Symmetrical, Clustered, Grid, Centralized, Linear 3.2. Light, Space, and Form as Essentials of Architecture	• Use Spatial Ordering Principles for the Given Building Project • Prepare Improved Sketch Design Concerning Light, Space, and Form	20	28
4.	**Design & Development of Drawings**	4.1. Development of Floor Plans, Structural Plans, Sections, Elevations, and Spatial Relationships at an Appropriate Scale 4.2. Development of Elevations and Sections with Respect to Building Finishes Fenestrations and Levels 4.3. Axonometric/Isometric View of the Designed Building 4.4. Furniture Layout Drawings for Various Activities/Functions of the Building Based on the Requirements	• Develop the Sketch at an Appropriate Scale as per the Requirements of the Building. • Develop the Sketch Showing Elevations and Sectional Relationship • Draw the Necessary 3D Building Drawings to Scale • Prepare Alternative Furniture Layout Drawings for the Designed Building	20	30
5.	**Final Presentation of Drawings and Models**	5.1.Final Presentation Drawings with Rendering 5.2.Preparation of a Model	• Prepare a Set of Final Presentation Drawings Including all of the Above • Make a Model of the Designed Project to a Suitable Scale with Surrounding Marked	30	58
				Total Hours	**168**

6. List of Practicals / Exercises

The practical/exercises have been properly designed and implemented in an attempt to develop different types of skills, so that students can acquire the competencies/ programmed outcomes. Following is the list of practical/exercises.

Sr. No	Practicals / Exercises	Key Competency	Hours
1.	Collect Data of an Existing Public Building & Analyze the Same	Students Will Learn to Design and Analyzation of Public Building	24
2.	Prepare a Case Study of an Existing Public Building Conceptual Sketches of a Given Project	Conceptual Sketches and Analyzation of Drawings	28
3.	Prepare the Concept and Sketch Design Based on the Given Requirements.	Students Will Learn to Sketches & Presentation Drawings	28
4.	Project-Public Building Preparation of Drawings by an Application of the Subjects Taught in this Semester. Develop the Building and Site Layout Designs Further and Prepare Drawings of all Floor Plans, Sections, and Elevations as Well as Detailed Site Layout with Road Network, Parking and Landscaping. Also Draw all Necessary Drawings in 3D	GDCR, Climate, Material Study, Context Study and Draft Technical Drawings, Design Study, Site Study, Requirements and Site Layout	30
5.	Produce Final Presentation Drawings; All Floor Plans, Column Beam Layout, Elevations, Sections, 3D View of the Building and Model to a Suitable Scale	Students will Learn to Create Presentation Drawings (Plans, Elevations, Sections, Sketches, 3D Views, 3D Model in Appropriate Scale)	58
		Total Hours	**168**

7. Reference Books

1) Architecture – Form, Space & Order by Francis D. K. Ching, John Wiley & Sons
2) Visual Dictionary of Architecture by Francis D.K.Ching, John Wiley & Sons
3) Neufert Data Standards by Ernst Neufert, Archon Books
4) Contemporary Indian Architecture- After the Masters by Bhatt Vikram, Peter Scriver Mapin Publication
5) Modern Architecture in India – Footprint in the Sands of Indian Architecture by Bagha Sarbajeet, Bagha Surinder, Galgotia Publication

8. Open Sources (Website, Video, Movie)

1) www.archnet.org
2) www.greatbuildings.com
3) www.archdaily.com