



**DEPARTMENT OF ARCHITECTURE  
UNIVERSITY OF THE PUNJAB, LAHORE.**

**BACHELORS OF ARCHITECTURE (B. ARCH)  
5 YEARS PROGRAM**

**COURSE OUTLINE**

Course Title	<b>Studio Base Structural Systems IV</b>
Course Code	<b>ARCH-364</b>
Credit Hours	<b>2</b>
Semester	<b>6<sup>th</sup> Semester / Spring</b>
Prerequisites	<b>NA</b>
Tutor	<b>As per Timetable</b>
Student Advising	<b>As per Timetable</b>
Contact	<b>-</b>

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**Teacher Signature**

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**Chairman Signature**

### **Course introduction**

Studio based architecture systems is the reinforcement of all the prior structural knowledge imparted to students. It encompasses design and execution of different structural components to make students understand the various structural concepts practically.

### **Learning Objective:**

Studio based architecture systems is the reinforcement of all the prior structural knowledge imparted to students. It encompasses design and execution of different structural components to make students understand the various structural concepts practically.

### **Outcome**

- Sound understanding of structural systems and their implementation.
- Awareness of various material properties and their use in design.

### **Learning Methodology:**

- Lectures as provided in the schedule of the semester activities
- Study of Archival Material and recommended books
- Guest Lectures as per requirement
- Presentation on allocated topics

### **Grade Evaluation Criteria**

Following, is the criteria for the distribution of marks to evaluate final grade in a semester.

<b>Marks Evaluation</b>	<b>Marks in percentage</b>
Sessional (Assignments, Quizzes, Presentations)	30
Mid Term	30
Final examination	40
<b>Total</b>	<b>100</b>

<b>Content</b>	
<b>Unit 1</b>	Introduction
<b>Unit 2</b>	Design project related to short span structures.
<b>Unit 3</b>	Design of building by using Precast concrete products.
<b>Unit 4</b>	<b>Student Presentation and evaluation</b>
<b>Unit 5</b>	Arch design- design and construction of an arch in brick
<b>Unit 6</b>	
<b>Unit 7</b>	
<b>Unit 8</b>	<b>Student Presentation and evaluation</b>
<b>Unit 9</b>	<b>Mid Term Exam</b>
<b>Unit 10</b>	<u>Bridge design:</u> Design of a structure that could bridge a gap of 10m and bear a weight of 40 kg, the design material will be cardboard only
<b>Unit 11</b>	
<b>Unit 12</b>	
<b>Unit 13</b>	<b>Student Presentation and evaluation</b>
<b>Unit 14</b>	<u>Geodesic Domes</u> Design and construction of Geodesic domes by Students in bamboo
<b>Unit 15</b>	
<b>Unit 16</b>	
<b>Unit 17</b>	<b>Student Presentation</b>
<b>Unit 18</b>	<b>Final Exam</b>
<b>Recommended Books/References</b>	<ol style="list-style-type: none"> <li>1. Paul, S. (2016). Structural design of buildings. Wiley, Blackwell</li> <li>2. Gordon, J.E. (2003) Structures: Or Why Things Don't Fall Down.</li> <li>3. Nash, A. (1990) Structural Design for Architects</li> <li>4. Schierle G.G (2006) Architectural Structures</li> <li>5. Charleson, A.(2005) Structure as Architecture: A Source Book</li> </ol>

	For Architects And Structural Engineers
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|  | 6. Deplazes, A., Söffker, G.H. (2005) Constructing Architecture:<br>Materials, Processes, Structures |
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