



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

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

COURSE OUTLINE

Course Title	Structural Systems III
Course Code	ARCH-363
Credit Hours	2
Semester	5th Semester / Fall
Prerequisites	NA
Tutor	As per Timetable
Student Advising	As per Timetable
Contact	-

Teacher Signature

Chairman Signature

Course introduction

This course focuses on Horizontal span structural systems. It deals with the design of structural system with lateral loads, water, earth, and wind pressure in buildings. Furthermore, it encompasses design of different types of large span.

Learning Objective:

To introduce students in design of building structures; major construction materials; analysis, preliminary design and behavior of beams, columns, slabs, frames, and stability of structural frames.

Outcome

- In-depth understanding of horizontal spanned structures
- Insight of lateral loads and impact on structures
- Understanding of design of structures with large span

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.

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

Content	
Unit 1	Introduction
Unit 2	Horizontal Spanned Structural Systems
Unit 3	
Unit 4	Case studies
Unit 5	Lateral Loads Types, impact on structures and corresponding building solutions
Unit 6	
Unit 7	Case studies
Unit 8	Student Presentation
Unit 9	Mid Term Exam
Unit 10	Large spans
Unit 11	Types and applications
Unit 12	
Unit 13	
Unit 14	
Unit 15	Case studies
Unit 16	Student Presentation
Unit 17	Material and structures
Unit 18	Final Exam
Recommended Books/References	<ul style="list-style-type: none"> • Zalewski, Waclaw, and Edward Allen. Shaping Structures: Statics. New York, NY: Wiley, 1998. ISBN: 9780471289968. • Schodek, Daniel. Structures. 4th ed. Upper Saddle River, NJ: Prentice Hall, 2000. ISBN: 9780130278210.