



**Department of Architectural Engineering**  
**College of Engineering**  
**University of Cihan - Sulaymaniyah**

**Subject: Building Element II**  
**Course Book – Second stage**

**Lecturer's name:**

**Mohammed Fadhil Hama**

# Academic Year: 2023/2024

## Course Book

<b>1. Course name</b>	Building Element II
<b>2. Lecturer</b>	Mohammed Fadhil Hama
<b>3. Department/ College</b>	Architecture/Engineering
<b>4. Contact</b>	07702227540
<b>5. Time (in hours) per week</b>	Theory: 2 Practical: 0
<b>6. Office hours</b>	
<b>7. Course code</b>	ARC-41122
<b>8. Teacher's academic profile</b>	<ul style="list-style-type: none"><li>• BSc. in Civil Engineering from The University of Bahrain, Bahrain, 2012.</li><li>• MSc in Structural Engineering with Materials, United Kingdom, 2013.</li><li>• PhD in Civil Engineering from The University of Nottingham, United Kingdom, expected to finish by end of 2023.</li></ul>
<b>9. Keywords</b>	All types of building elements, foundation, wall, stair, openings, roof, floor, Finishing.
<b>10. Course overview:</b>	Building Elements II is a continuation of building element I course. This course focuses on the in-depth study of key building elements and their integration into architectural design. Students will explore advanced concepts related to structural systems, materials, and construction techniques, developing a deeper understanding of the relationship between form and function.
<b>11. Course objective:</b>	By the end of the course, students will be able to: Analyse and integrate advanced structural systems into architectural design. Demonstrate an understanding of materials and their applications in construction. Evaluate the environmental and sustainable aspects of building elements. Apply advanced construction techniques in the design process. Communicate design concepts effectively through drawings and presentations.
<b>12. Student's obligation</b>	Students are required to attend class, do quizzes, self-study after each class and will have two take two exams during the semester

### 13. Forms of teaching

The elements are explained mainly by data show and the white board is used

### 14. Assessment scheme:

Midterm Examination	30%
Quizzes	10%
Final exam	60%

### 15. Student learning outcome:

- Comparative knowledge of element properties (physical, structural, ...) for most common and advanced building elements,
- Understanding of typical and potential applications of these elements,
- Understanding of relationship between element properties and structural form,
- Ability to identify crucial problem areas in manufacture and applications of building elements,
- Understanding of importance of experimental verification of element properties.

### 16. Course Reading List and References:

- "Building Construction Illustrated" by Francis D.K. Ching
- "Structures: Or Why Things Don't Fall Down" by J.E. Gordon
- Additional readings and resources will be provided throughout the course.

### 17. The Topics:

Week No.	Topic
1	Introduction to course
2	Foundation techniques and materials
3	Ground slab techniques and materials
4	Column techniques and materials
5	Beam techniques and materials
6	Slab/roof techniques and materials
7	Midterm Review
8	Mid-term Exam
9	Steel structure techniques and materials
10	Functional elements techniques and materials
11	Aesthetic elements techniques and materials
12	Review of the course

Final examination



**Main Lecturer**  
Mohammed Fadhil Hama

**Head of The Department**  
Mrs. Tara Azad Rauof