



**The Hashemite University**  
**Faculty of Engineering**  
**Course Syllabus**  
**Department of Civil Engineering**

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|----------------------|-----------------------|-----------------------|-----------------------|
| <b>Course Title:</b> | Building Construction | <b>Course Number:</b> | 110401545             |
| <b>Designation</b>   | Elective              | <b>Prerequisite:</b>  | 110401421             |
| <b>Instructor:</b>   | Dr. Odey Alshboul     | <b>E-mail:</b>        | odey.shboul@yahoo.com |
| <b>Office Hours:</b> |                       |                       |                       |

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- **Course Description (catalog):** In this course, many alternative ways of building are described: different structural systems, different systems of enclosure, and different systems of interior finish.

- **Textbook(s) and/or Other Supplementary Materials:**

Fundamentals of Building Construction Materials and Methods; by Edward Allen & Joseph Iano; 5th Edition.

**References:** Allen, E., & Iano, J. (2011). Fundamentals of building construction: materials and methods. John Wiley & Sons.

- **Major Topics Covered:**

| Topic  | No. of Weeks | Contact hours* |
|--|--------------|----------------|
| <ul style="list-style-type: none"><li>● Reinforced concrete slabs( Introduction+one-way solid slab).</li><li>● Reinforced concrete slabs(one-way solid slab+two way solid slab).</li><li>● Reinforced concrete slabs(one-way hollow slab+two-way hollow slab) and calculation the dead load of different slabs .</li></ul> | 5            | 15             |
| <b>First Exam</b>  |              |                |
| <ul style="list-style-type: none"><li>● Foundations( single Footing+ combined footing).</li><li>● Foundations(wall Footing and trapezoidal footing) and Eccentricity.</li></ul>  | 5            | 15             |
| <b>Second Exam</b>   |              |                |
| <ul style="list-style-type: none"><li>● Timber Design</li><li>● Stair Design ,Cement plastering and Masonary work.</li><li>● Water damp proofing , lintel design and Joints in structures.</li></ul>   | 5            | 15             |
| <b>Total</b>   | <b>15</b>    | <b>45</b>      |

\*Contact hours include lectures, quizzes and exams

- **Specific Outcomes of Instruction (Course Learning Outcomes):**

After completing the course, the student will be able to:

1. Defines the different construction systems in buildings and their components. (2,7)
2. Define the sequence and methods of construction in buildings. (2)
3. Recognizes the types of structural elements such as ceilings, columns and beams, as well as the finishing works. (2)

- **Student Outcomes (SO) Addressed by the Course:**

| #   | Outcome Description  | Contribution |
|---|--|--------------|
| <b>General Engineering Student Outcomes</b> |  |              |
| 1   | an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics  |              |
| 2   | an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors                   | H (60)       |
| 3   | an ability to communicate effectively with a range of audiences  |              |
| 4   | an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts |              |
| 5   | an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives   |              |
| 6   | an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions  |              |
| 7   | an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.  | M (40)       |
| H=High, M= Medium, L=Low                    |  |              |

#### Assessments, Methods and Evaluation Criteria

| <u>Course Grading Policy</u> | <u>Date</u>         | <u>Percentage</u> |
|------------------------------|---------------------|-------------------|
| First Exam                   | 4/4/2023 (Tuesday)  | 30%               |
| Second Exam                  | 16/5/2023 (Tuesday) | 30%               |
| Final Exam                   |                     | 40%               |
| <b>Total</b>                 |                     | <b>100%</b>       |

**General Notes:** Beware of Plagiarism: copying and handing in for credit someone else's work. Any plagiarism case will result in an automatic 'F' for the course