

COURSE PLAN

FIRST: BASIC INFORMATION

College

College : Karak University College
 Department : Department of Basic and Informatics Sciences

Course

Course Title : Building Construction
 Course Code : **020112182**
 Credit Hours : 2 (2 Theoretical, 0 Practical)
 Prerequisite :

Instructor

Name : Rayah Nasr Salam Al-Dala'ien
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 Tel (Ext) :-
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 Office Hours : -
 Class Times

Text Book

- Title: انشاء مباني - م. احمد حسين ابو عودة، مكتبة المجتمع العربي للنشر والتوزيع 2014.

References

- تأهيل منشآت مباني – م.منى الفاعوري، مكتبة المجتمع العربي للنشر والتوزيع 2015.

SECOND: PROFESSIONAL INFORMATION

COURSE DESCRIPTION

This course covers the working knowledge of construction methods, regulations, and stages of the building construction process (construction site, earthworks, foundations, walls, floors, ceilings, stairs, etc).

COURSE OBJECTIVES

The objective of this course is to enable the student to do the following:

- Explain basic concepts related building.
- Explain type of buildings and their usage aims.
- Explain construction stages.



- Explain properties of building elements and read the drawings.
- Explain functions of building elements.
- Explain types and properties of foundations, beams, column, stairs and arches.
- Explain types and properties of concrete, steel and framework.
- Express properties of different structures walls & floors.
- Explain types of isolation using in buildings and use the technical knowledge in project drawings.
- Define isolation materials using for heat, water, and noise and fire insulation and explains their usage place.
- Explain types of painting work, wood work, elevators and decorative work using in buildings and use the technical knowledge in project drawings.
- Accept the modern techniques of construction.

COURSE LEARNING OUTCOMES

On successful completion of this course, students are expected to be able to:

- CLO1. Describe the earthworks and foundation works of all kinds
- CLO2. Explain properties of construction materials and their applications
- CLO3. Describe the definition and types of the slabs, walls, columns, beams, arches and stairs works of all kinds
- CLO4. Explain regular, reinforced concrete works, brick and stone masonry work
- CLO5. Explain finishing works of buildings, wood, painting, tiles and metal works
- CLO6. Explain thermal insulation, waterproofing, sound insulation, water drainage and separators of all kinds
- CLO7. Describe the definition, types and properties of the elevators
- CLO8. Perform shop drawings skill properly

COURSE SYLLABUS

Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed assignments
1	General introduction to buildings and earthworks	<ul style="list-style-type: none"> • Types of buildings in terms of implementation method • Stages of building construction • Types of buildings in terms of structural design • Soil types • Types of excavations in building projects • Backfill works 	CLO1	Visiting site in excavation level and writing report about the earthwork stage of building construction
2	Foundations	<ul style="list-style-type: none"> • The factors that determine the depth of foundations • Types of foundations • Shallow foundations • Deep foundations 	CLO1	Visiting site in foundations preparation and writing report about

Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed assignments
				the foundations work stage of building construction
3	Concrete, steel reinforcement, and formwork	<ul style="list-style-type: none"> • Concrete components, types of concrete mixes and grade of concrete, cement content, cement water factor • Steel reinforcement used in structural elements • Formworks: types of formworks according to their material, details of drawings of formwork for columns, beams and slabs 	CLO2	Visiting concrete and steel factory and writing report about it
4	Walls	<ul style="list-style-type: none"> • Walls detention • Types of walls from the construction area. • Types of walls according to the material of manufacture. • Retaining walls: in terms of their shape. • Uses of Walls 	CLO3	Visiting site in preparation of walls and writing report about it.
5	Concrete Slabs	<ul style="list-style-type: none"> • Definition of slabs • Types of concrete slabs in terms of shape. • Types of concrete slabs in terms of reinforcement. • Types of concrete slabs in terms of their materials • Uses of slabs 	CLO3	Visiting site in preparation of slabs and writing report about it.
6	Columns	<ul style="list-style-type: none"> • Column definition • Types of columns in terms of material of manufacture. • Types of columns in terms of shape and position in the building • Types of columns in terms of reinforcement • Types of columns in terms of loading • Uses of columns 	CLO3	Visiting site in preparation of columns and writing report about it.

Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed assignments
7	Beams, stairs and arches	<ul style="list-style-type: none"> • Beams, stairs and arches definitions. • Types of beams in terms of their location in the slab • Types of stairs in terms of material of manufacture • Types of stairs in terms of shape • Types of arches in terms of shape 	CLO3	Visiting site in preparation of beams, stairs and arches and writing report about it.
8	Midterm Exam			
9	Wall and ceiling cladding works	<ul style="list-style-type: none"> • Wall and ceiling cladding work definition. • Types of plastering in wall and ceiling cladding in terms of materials used • How to carry out different types of plastering works 	CLO4	Visiting site in preparation of wall and ceiling cladding and writing report about it.
10	Tiles and Flooring	<ul style="list-style-type: none"> • Types of tiles used in floor coverings • Types of floors in terms of the materials used in their cladding, concrete floors, wooden floors and elastic floors 	CLO5	Visiting Tiles Factory
11	Paint work	<ul style="list-style-type: none"> • Types of paint in wall and ceiling covering. • Types of pastes • Steps to carry out painting works on different surfaces (concrete, wood, steel) 	CLO5	Visiting site in preparation of Paint work and writing report about it.
12	Woodworks	<ul style="list-style-type: none"> • Doors, windows and shutters • Non-structural metal work for aluminum doors and windows • Iron used in guard and balustrades • The materials used in aluminum works 	CLO5	-
13	Isolation works	<ul style="list-style-type: none"> • Isolation works definition • Water drainage and expansion joints. • Insulation types: thermal, hydro, acoustic • The materials used in the insulation work for each type • The purpose of insulation works for each type • Draining rainwater from buildings • Types of joints in buildings • Structural joints (expansion and contraction joints, settlement joints) • The materials used in the work of the various joints 	CLO6	Visiting site in preparation isolation work and writing report about it.



Week	Topic	Topic details	Related LO and Reference (Chapter)	Proposed assignments
14	Elevators & Decoration works in buildings	<ul style="list-style-type: none"> • Elevators types and loads • Details of elevator contents • Elevator capacity and typical sizes • Decoration works in buildings • Gypsum works • Secondary suspended ceilings • Tiled ceilings 	CLO7	-
15	Modern methods of building construction	<ul style="list-style-type: none"> • Sliding formwork system • Reading of Engineering Drawing 	CLO8	Reading about the Modern methods of building construction and write a report about it.
16	Final Exam			

COURSE LEARNING RESOURCES

Teaching will be achieved using available resources including Lectures, data show and materials uploaded to the e-learning system and term projects

ONLINE RESOURCES

https://www.youtube.com/channel/UCBrgW3iB-3WUihVGHh_SHiA
https://www.alammadani.com/2021/04/blog-post_28.html
[https://www.uop.edu.jo/download/research/members/\[Architecture_Ebook\]_Building_Design_and_Construction_Handbook.pdf](https://www.uop.edu.jo/download/research/members/[Architecture_Ebook]_Building_Design_and_Construction_Handbook.pdf)
<https://www.aboutcivil.org/building-construction-and-design.html>

ASSESSMENT TOOLS

ASSESSMENT TOOLS		%
Projects and Quizzes		20
Mid Exam		30
Final Exam		50
TOTAL MARKS		100

THIRD: COURSE RULES

ATTENDANCE RULES

Attendance and participation are extremely important, and the usual University rules will apply. Attendance will be recorded for each class. Absence of 10% will result in a first written warning.



Absence of 15% of the course will result in a second warning. Absence of 20% or more will result in forfeiting the course and the student will not be permitted to attend the final examination. Should a student encounter any special circumstances (i.e. medical or personal), he/she is encouraged to discuss this with the instructor and written proof will be required to delete any absences from his/her attendance records.

GRADING SYSTEM
Example:

Grade	points
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REMARKS

Use of Mobile Devices, Laptops, etc. During Class, unexpected noises and movement automatically divert and capture people's attention, which means you are affecting everyone's learning experience if your cell phone, laptop, etc. makes noise or is visually disturbing during class. For this reason, students are required to turn off their mobile devices and close their laptops during class.

Academic Integrity. Copying assignments, allowing assignments to be copied, will fail the assignment on the first offense. Cheat in tests, or copying assignments for the second time.

Cite all sources consulted to any extent (including material from the internet), whether or not assigned and whether or not quoted directly.

Project: Students will undertake a term project to study in detail one of the course topics. The project may involve a critical literature review or a case study. The students should consult at least five (5) references or journal articles. A written project report of 10 pages maximum will be submitted in nominated dates. Ten-minute presentation will be given to the rest of the class during the last two weeks of the semester.
 Formats, Rules, Topics, submission and presentation dates are illustrated in project form.

COURSE COORDINATOR

<p>Course Coordinator</p> <p>Signature:</p> <p>Date:</p>	<p>Department Head:</p> <p>Signature:</p> <p>Date:</p>
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