



Course Syllabus
According to JORDAN National Qualification
Framework (JNQF)

Course Name: Building Services

Course Number: 04035281

General Course Information:

Course title	Building Services
Course number	04035281
Credit hours	3 Hours Theory
Education type	3
Prerequisites/corequisites	Yes
Academic Program	Architecture/ Civil department
Program code	CE
Faculty	Isra University
Department	Engineering
Level of course	Civil Engineering
Academic year /semester	4 th Year
Awarded qualification	Second semester 2020/2021
Other department(s) involved in teaching the course	B.Sc
Language of instruction	Architecture/ Civil department
Date of production/revision	Arabic
	28/02/2021

Course Coordinator:

Coordinator's name	Dr. Ibrahim Varouqa
Office No	42250
Office Phone extension number	2520
Office Hours	Full time except lecture hours
Email	ibraheem.faroqa@iu.edu.jo

Other Instructors:

Instructor name	
Office No	
Office Phone extension number	
Office Hours	
Email	

Course Description (English/Arabic):

English	
Arabic	Arabic

Textbook: Author(s), Title, Publisher, Edition, Year, Book website.

1. Text book, Dr. Mouafak A. Zaher 2012
2. <https://www.amazon.com/Building-Services-Dr-M-Zaher/dp/1478225904> Concrete technology, A.M Novile, J.J Brooks

References: *Author(s), Title, Publisher, Edition, Year, Book website.*

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Course Educational Objectives (CEOs):

1.	Learn and understand Heat and cooling ventilation / natural and mechanical ventilation, methods of cooling heat flow and humanity
2.	Learn and understand Elevators, principal mechanical system for elevators, and learn to design deferent types of elevators
3.	Learn and understand Escalators, principal mechanical system for, escalators and learn to design deferent types of escalators
4.	
5.	

Intended Learning Outcomes (ILO's):

	Subject Intended learning outcomes (ILOs) describe what students are expected to know and be able to do at the end of the course. These outcomes are related to the knowledge, skill and competence that students acquire:	Relationship to CEOs	Contribution to PLOs	Bloom Taxonomy Levels*	Descriptors**
A	Knowledge and Understanding:				
A1	Demonstrate an understanding of the terms, concepts and principles of engineering	1	1	1	k
A2	Demonstrate an understanding of the course, influence on the design of civil engineering projects	2	2	1	K,C
A3	Application knowledge (skills)	3	2	2	K, S
B	Intellectual skills:				
B1	Application knowledge (skills)	3	3	3	K, S
B2	To able specify	2	3	3	K, C
B3		2	3	3	K, S
C	Subject specific skills:				
C1	Be able to identify the problem and find solution				
C2		3	2	2	k
C3		3	3	3	K,C
D	Transferable skills:				
D1					
D2					
D3					

***Bloom Taxonomy Levels**

Level #	1	2	3	4	5	6
Level Name	Knowledge	Comprehension	Application	Analysis	Evaluation	Synthesis

**** Descriptor (National Qualification Framework Descriptors): K : Knowledge, S: Skill, C: Competency.**

Program Learning Outcome (PLOs):

Program Learning Outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviours that students acquire as they progress through the program. A graduate of the (_____) program will demonstrate:		Descriptors**		
		K	S	C
1.	An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	K	S	C
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	K	S	C
3.	An ability to communicate effectively with a range of audiences		S	C
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		S	C
5.	An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks		S	C
6.	An ability to develop and conduct appropriate experimentation, analyse and interpret data, and use engineering judgment to draw conclusions	K	S	C
7.	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies		S	C

**** Descriptors according to the national qualifications framework (K: knowledge, S: skill, C: Competency)**

Weekly Schedule (please choose the type of teaching)

Face to Face

Hybrid (2 Lectures Face – To - Face +1 Lecture Asynchronous)

Hybrid (1 Lectures Face – To - Face +1 Lecture Asynchronous)

Online (2 Lectures Synchronous +1 lecture Asynchronous)

Week	First Lecture (.....)	Second Lecture (.....)	Third Lecture (.....)	Ach. ILOs	Ach. PLOs	Descriptors**
1						
2						
3						

4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

* K: Knowledge, S: Skills, C: Competency

Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

- Interactive videos
- Practice Labs
- Discussion Forums
- Quizzes
- Other Interactive online activities
- Reports

Course Policies:

A- Attendance policies:

The maximum allowed absences is 15% of the lectures.

B- Absences from exams and handing in assignments on time:

Midterm exam can be retaken based on approval of excuse by the instructor's discretion.

Not handing assignment on time will incur penalties.

C- Academic Health and safety procedures

D- Honesty policy regarding cheating, plagiarism, and misbehaviour:

Cheating, plagiarism, misbehaviour will result in zero grade and further disciplinary actions may be taken.

E- Grading policy:

- All homework is to be posted online through the e-learning system.
- Exams will be marked within 72 hours and the marked exam papers will be handed to the students.
- Online Activities (Course Videos, Practice labs, Discussion Forums, Quizzes) ___%
- Midterm **_30_**%
- Final Exam **_50_**%

F- Available university services that support achievement in the course: **E-Learning Platform, Labs, Library.**

Required equipment:

- PC / Laptop with webcam and mic YES
- Internet Connection NO
- Access to the IU E-Learning Platform at: <https://elearn.iu.edu.jo/>
- E-learning plan
- Satisfaction questionnaires for online and face-to-face learning
- Software for e-learning NO
- Training NO

Assessment Tools implemented in the course:

- ✓ Final Exam YES
- ✓ Midterm Exam YES
- ✓ Quizzes YES
- ✓ Homework YES
- Practice Labs NO
- ✓ Discussion Forums YES
- ✓ Periodic reports for learning assessment NO
- ✓ Improvement plans for online or face-to-face teaching NO
- ✓ Others:.....

Responsible Persons and their Signatures:

Course Coordinator	Dr. Ibrahim Varouqa	Completed Date	12/06/2022
		Signature	
Received by (Department Head)	Dr. Ibrahim Varouqa	Received Date	12/06/2022
		Signature	