



Jordan University of Science and Technology
Faculty of Architecture And Design
Architecture Department

ARCH412 Architectural Design (6) - JNQF Level: 7

Second Semester 2023-2024

Course Catalog

5 Credit Hours. Advanced design of buildings with emphasis on the tectonics of structures, envelopes, materials and engineering & environmental systems. Design themes and cases may include high-rise buildings, sustainable & green buildings, non-conventional structures & technically specialized buildings (e.g. hospitals, airports, factories, laboratories ? etc.). Students are expected to apply knowledge previously acquired from related subjects such as building construction, environmental control & structural systems to the design process. One major project or medium ones; each with a specific design problem.

Teaching Method: On Campus

Text Book

Title	Green building Bible
Author(s)	Richard Nicholls
Edition	1st Edition
Short Name	1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
2	Sustainable Architecture: Hi-Tech Housing	Arian Mostaedi	1st Edition	
3	High-rise Buildings	Max Dudler	1st Edition	
4	Modern trains and splendid stations: architecture, design, and rail travel for the twenty-first century.	Martha Thorne	1st Edition	
5	Multi-purpose High-rise Towers and Tall Buildings (Hardcover) by	J.N. Clarke (Editor), Jurek Tolloczko (Editor), H.R. Viswanath (Editor)	1st Edition	
6	Spaces of Global Cultures: Architecture, Urbanism, Identity (Architext)	Anthony King	1st Edition	

Instructor

Name	Prof. Hussain Alzoubi
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Instructor

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Instructor

Name	Dr. Laith Obeidat
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Class Schedule & Room
Section 1: Lecture Time: Sun, Tue : 11:30 - 16:30 Room: DRNHALL(C1)
Section 2: Lecture Time: Sun, Tue : 11:30 - 16:30 Room: DRNHALL(C2)
Section 3: Lecture Time: Sun, Tue : 11:30 - 16:30 Room: DRNHALL(D1)

Prerequisites		
Line Number	Course Name	Prerequisite Type
2214113	ARCH411 Architectural Design (5)	Prerequisite / Pass

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction and Readings	From 1, From 2
Week 2	Systems and Case Studies	From 1, From 2, From 3, From 4, From 5
Week 3	Program	From 3, From 4
Week 4	Site Analysis	
Week 5	Data collection submission and Sketch design	From 6
Week 6	Concept development	From 4, From 5, From 6
Week 7	Concept submission and development stage	From 3, From 4, From 5
Week 8	Design Development	From 1, From 2
Week 9	Design Development	
Week 10	Design Development	
Week 11	Design Development	
Week 12	Pre-final submission	
Week 13	Systems details	
Week 14	Systems details	
Week 15	Final Stage Submission	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand the principles of structural, and environmental systems, materials behavior, and the basics of preparing a comprehensive program for an architectural project, focusing on inventory of space and equipment requirements, analysis of site conditions, review of the relevant laws and standards and assessment of their implication for the project. [1B.B9] [1L7S1]	10%	
Develop students' research skills: Ability to gather, assess, record, and apply relevant information in architectural design. [1B.B7]	20%	
Create appropriate building design with the use of advanced building materials, structure technology and the environmental requirements (physical and behavior environment) along with the regional aesthetic values. Students must propose clean and efficient technologies that help to reduce future energy consumption and provide a better quality of life for citizens. Basically, good buildings involve environmentally responsive design taking into account the surroundings, building usage, and the selection of appropriate building services. [1B.B7, 1B.B9]	60%	
Apply the presentation skills to represent design ideas in well-defined drawings and models. [1B.B7]	10%	

Relationship to Program Student Outcomes (Out of 100%)																									
A.A1	A.A2	A.A3	A.A4	A.A5	A.A6	A.A7	A.A8	B.B1	B.B2	B.B3	B.B4	B.B5	B.B6	B.B7	B.B8	B.B9	B.B10	C.C1	C.C2	C.C3	D.D1	D.D2	D.D3	D.D4	D.D
														60		40									

Relationship to NQF Outcomes (Out of 100%)	
L7S1	
10	

Evaluation	
Assessment Tool	Weight
Data collection	20%
Preliminary stage	20%
Development stage	20%
Pre-final stage	15%
Final stage	25%

Policy	
Portfolio and Documentation of Design Work	<p>It is essential for architectural students, like architectural professionals, to thoroughly document and reproduce their work. It is the nature of architectural design work that reproduced images of work are critical to presentation. Reproduction creates backups of drawings and physical models that may eventually be lost or damaged.</p> <p>Students are therefore required to document all studio work in an A3 sheets format. Digital copies of design work are also required after each final project presentation. Proper documentation does not include only images. It also includes preliminary design sketches, concise written descriptions of the design problem, and a basic description of the design proposal or solution.</p>
Attendance Policy	College work proceeds at such a pace that regular attendance is necessary for each student to obtain maximum benefits for instructions. Regular and punctual attendance at all class and studio sessions is a student obligation, and each student is responsible for all the work, including tests and oral discussions, in all class and studio sessions.
Design Critiques	Critiques are the essential format for architectural education and project development. They are the means by which faculty and student discuss and develop a project together. This is a two-way communication and is only made possible through the student's responsibility to be prepared with drawings, models, ideas, and questions for discussion each day of studio.

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