Professional Degrees and Curriculum

Overview

The diversity of courses offerings in the department of architectural engineering at the Hashemite University represents a concern for architectural engineering design that ranges in scale form the individual building to the urban design landscape. Students are also encouraged to take courses in other departments in the university. Studies and research in architecture and urbanism are supported throughout the curriculum by course work and design studio.

Lectures and design studio courses provide the foundation of our program. Students are required to complete core courses in the design studio, which provide students with the opportunity to gain practical experience in designing. Architectural courses would require a mix of research and design. Design work is crucial to our program so that students can apply the skills and concepts they learned in their theoretical courses to create drawings and models of their design.
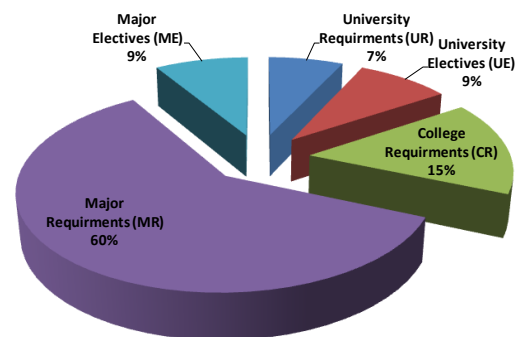
The architectural engineering department at the Hashemite University does not seek to impose any single design philosophy and/or method, but rather encourages the development and discernment of individual approaches to design for each student

The curriculum emphasizes

- the development of the critical, analytical, interpretive and creative abilities that are essential to engaging and effectively addressing the diverse bodies of knowledge that define architecture's realm and its practices
- the use of design thinking as a highly effective means for dealing with complex situations, and will ask students to respond to design issues and situations that are often in conflict through analysis, interpretation, reason, argumentation and proof with both precision and accuracy
- the ability to analyze, interpret, organize, arrange and manipulate various bodies of knowledge
- understanding and being able to apply appropriate methodologies

Program Components: 172 minimum credits to graduate

Course Type	CRD	Courses No.
University Requirements (UR)	12	4
University Electives (UE)	15	5
College Requirements (CR)	27	12
Major Requirements (MR)	103	35
Major Electives (ME)	15	5
Total Credit (CRD)	172	61

Areas of study: The curriculum is organized around eight areas of study:

1) General Courses (7 CRD):
- ARCH 101: Architectural Drawing (3)
- ARCH 102: Computer Applications in Architectural Design I (2)
- ARCH 201: Computer Applications in Architectural Design II (2)

2) Architectural Drawings and Communication Courses (5 CRD):
- ARCH 111: Free Hand Drawing (2)
- ARCH 112: Architectural Communication and Presentation I (2)
- ARCH 213: Architectural Communication and Presentation II (1)

3) Architectural Design Courses (39 CRD):

4) Architectural and Building Construction

- ARCH 121: Basic Design I (3)
- ARCH 122: Basic Design II (3)
- ARCH 221: Architectural Design I (4)
- ARCH 222: Architectural Design II (4)
- ARCH 321: Architectural Design III (4)
- ARCH 322: Architectural Design IV (4)
- ARCH 421: Architectural Design V (5)
- ARCH 422: Architectural Design VI (5)
- ARCH 542: Graduation Project I (2)
- ARCH 521: Graduation Project II (5)

Courses (24 CRD):
- ARCH 232: Building Materials (3)
- ARCH 335: Building Construction Systems (3)
- ARCH 336: Building Finishing (3)
- ARCH 423: Working Drawing (3)
- CIVL 214: Engineering Mechanics (3)
- CIVL 313: Structural Analysis (3)
- CIVL 324: Concrete and Steel Structure (3)
- CIVL 369: Surveying and Building Documentation (3)

5) History and Theory of Architecture Courses (13 CRD):
- ARCH 241: History and Theory of Architecture I (3)
- ARCH 341: History and Theory of Architecture II (3)
- ARCH 342: Islamic Architecture (3)
- ARCH 343: Theory of Modern Architecture (3)
- ARCH 345: Theory and Methods of Architectural Design (1)

6) Legislations, Specifications, and Professional Practice Courses (9 CRD):
- ARCH 451 Specification and Contracts (2)
- ARCH 452: Quantity Surveying (2)
- ARCH 551: Professional Practice (2)
- ARCH 450: Practical Training (3)

7) Urban Studies (9 CRD):
- ARCH 463: Urban Design and Planning (3)
- ARCH 464: Housing (2)
- ARCH 563: Landscape Design (2)
- ARCH 465: Conservation of Architectural Heritage (2)

8) Engineering Systems (6 CRD):
- ARCH 471: Lighting and Acoustics (3)
- ARCH 450: Electro-mechanical Systems (3)

Major elective courses: are mixed between design and cultural studies (15 CRD).

Basic sciences courses (18 CRD)
- PHYS 101: General Physics I (3)
- PHYS 103: General Physics Lab (1)
- MATH 101: Calculus 101 (3)
- CHEM 101: Basics of General Chemistry (3)
- CHEM 108: Basics of General Chemistry Lab (1)
- PROG 112: C++ Programming Language (3)
- ENGI 101: Engineering Workshops (1)

General Studies (University Requirements and Electives) (12 CRD+ 15 CRD)
A range of the arts and sciences that constitute a liberal education, grounding the students in a diverse set of modes of thinking that prepare them for upper division studies in the disciplinary part of the program.

Study Plan

Semester 1 – Fall

Course No.	Course Name	CRD	LEC	RRAC	Course Type	Pre requisite
ARCH 101	Architectural Drawing	3	1	6	CR	- - - - - - -
ARCH 121	Basic Design (1)	3	1	6	MR	ARCH 101*
ARCH 111	Free Hand Drawing	2	0	6	CR	ARCH 101*
ENGL 101	English Language	3	3	0	UR	111405099 Or 2120099
ARAB 101	Arabic Language	3	3	0	UR	111405098 Or 2110099
CHEM 107	Basics of General Chemistry	3	3	0	CR	- - - - - - -
CHEM108	Basics of General Chemistry Laboratory	1	0	3	CR	CHEM 107*
	Total	18	11	21		

Semester 2 - Spring

Course No.	Course Name	CRD	LEC	PRAC	Course Type	Pre requisite
ARCH 102	Computer Applications In Architectural Design (1)	2	0	6	CR	ARCH 122*
ARCH 122	Basic Design (2)	3	1	6	MR	ARCH 121
ARCH 112	Architectural Communication and Presentation (1)	2	0	6	CR	ARCH 111
PHYS 101	General Physics (1)	3	3	0	CR	- - - - - - -
PHYS 103	General Physics Laboratory (1)	1	0	3	CR	PHYS 101*
MATH 101	Calculus (1)	3	3	0	CR	- - - - - - -
ENGB 203	Ethics and Communicational skills	3	3	0	CR	ENGL 101
	Total	17	10	21		

Semester 3 – Fall

Course No.	Course Name	CRD	LEC	RRAC	Course Type	Pre requisite
ARCH 221	Architectural Design (1)	4	1	9	MR	ARCH 122
ARCH 213	Architectural Communication & Presentation (2)	1	0	3	MR	ARCH 112
ARCH 241	History & Theory of Architecture (1)	3	3	0	MR	ARCH 111
ARCH 232	Building Material	3	2	3	MR	CHEM 107
PROG 112	C++ Programming Language	3	3	0	CR	110108099 or 1011100)
CIVIL 214	Engineering Mechanics	3	3	0	MR	PHYS 101 & MATH 101
	Total	17	12	15		

Semester 4 - Spring

Course No.	Course Name	CRD	LEC	RRAC	Course Type	Pre requisite
ARCH 201	Computer Applications In Architectural Design (2)	2	0	6	MR	ARCH 102
ARCH 222	Architectural Design (2)	4	1	9	MR	ARCH 221
ARCH 341	History & Theory of Architecture (2)	3	3	0	MR	ARCH 241
ARCH 335	Building Construction Systems	3	2	3	MR	ARCH 232
CIVL 313	Structural Analysis for Architectural Students	3	3	0	MR	CIVIL 214
	Major Core Elective	3	3	0	ME	
	Total	18	12	18		

Semester 5 – Fall

Course No.	Course Name	CRD	LEC	RRAC	Course Type	Pre requisite
ARCH 321	Architectural Design (3)	4	1	9	MR	ARCH 222
ARCH 342	Islamic Architecture	3	3	0	MR	ARCH 341
ARCH 345	Theory & Methods of Architectural Design	1	1	0	MR	ARCH 321*
CIVL 369	Surveying and Building Documentation	3	1	6	MR	ARCH 222

Semester 6 - Spring

Course No.	Course Name	CRD	LEC	RRAC	Course Type	Pre requisite
ARCH 322	Architectural Design (4)	4	1	9	MR	ARCH 321
ARCH 563	Landscape Design	2	1	3	MR	ARCH 321
ARCH 343	Theory of Modern Architecture	3	3	0	MR	ARCH 342*
UNIV 118	Citizenship Education	3	3	0	UR	- - - - - - - -

Course No.	Course Name	CRD	LEC	RRAC	Course Type	Pre requisite	Course No.	Course Name	CRD	LEC	RRAC	Course Type	Pre requisite
ARCH 336	Building Finishing	3	2	3	MR	ARCH 335	ARCH 423	Working Drawings	3	0	6	MR	ARCH 336
ENGI 101	Engineering Workshop	1	0.5	2	CR	- - - - - - - -		Major Core Elective	3	3	0	ME	
CIVIL 324	Concrete and Steel Structures for Architectural students	3	3	0	MR	CIVL 313							
Total		18	11.5	20			Total		18	11	18		

Semester 7- Fall							Semester 8 -Spring						
Course No.	Course Name	Course Weekly Hours			Course Type	Pre requisite	Course No.	Course Name	Course Weekly Hours			Course Type	Pre requisite
		CRD	LEC	RRAC					CRD	LEC	RRAC		
ARCH 421	Architectural Design (5)	5	1	12	MR	ARCH 322	ARCH 422	Architectural Design (6)	5	1	12	MR	ARCH 421
ARCH 471	Lighting & Acoustics	3	2	3	MR	ARCH 322	ARCH 463	Urban Planning & Design	3	3	0	MR	ARCH 421
MECH 450	Electro-Mechanical Systems for Architectural students	3	3	0	MR	ARCH 423*	ARCH 464	Housing	2	2	0	MR	ARCH 463*
	Major Core Elective	3	3	0	ME		ARCH 451	Specifications & Contracts	2	2	0	MR	MECH 450
	University Elective	3	3	0	UE		ARCH 465	Conservation of Architectural Heritage	2	2	0	MR	ARCH 421*
								Major Core Elective	3	3	0	ME	
Total		17	12	15			Total		17	13	12		

Semester 9 – Fall							Semester 10 - Spring						
Course No.	Course Name	Course Weekly Hours			Course Type	Pre requisite	Course No.	Course Name	Course Weekly Hours			Course Type	Pre requisite
		CRD	LEC	RRAC					CRD	LEC	RRAC		
ARCH 542	Graduation Project (1)	2	1	3	MR	ARCH 422 & ARCH 423 & ARCH 343 & finish 120 CRD	ARCH 521	Graduation Project (2)	5	1	12	MR	ARCH 542
ARCH 452	Quantity Surveying	2	2	0	MR	ARCH 451*	ARCH 551	Professional Practice	2	2	0	MR	ARCH 452
	Major Core Elective	3	3	0	ME			University Elective	3	3	0	UE	
	University Elective	3	3	0	UE			University Elective	3	3	0	UE	
	University Elective	3	3	0	UE								
	Military Science	3	3	0	UR								
Total		16	15	3			Total		13	9	12		

*: or Concurrent

Training Requirement						
Course No.	Course Name	Course Weekly Hours			Course Type	Pre requisite
		CRD	LEC	RRAC		
ARCH 450	Practical Training	3			MR	ENGB 203 & finish 120 CRD

Major Elective Courses (15 CRD).

Course No.	Course Name	Course Weekly Hours			Course Type	Pre requisite
		CRD	LEC	RRAC		
ARCH 566	GIS	3	1	6	ME	ARCH 369 or ARCH 365
ARCH 424	Interior Design	3	1	6	ME	ARCH 321
ARCH 423	Ancient Building Technologies	3	3	-	ME	ARCH 241
ARCH 444	Local Contemporary Architecture	3	3	-	ME	ARCH 343
ARCH 472	Desert Habitation	3	3	-	ME	ARCH 463
ARCH 473	Building and Energy	3	3	-	ME	ARCH 471 or Concurrent
ARCH 523	Special Topics in Architecture	3	3	-	ME	ARCH 542 or Concurrent
ARCH 524	Methodologies of Architectural Design	3	3	-	ME	ARCH 422 or Concurrent
ARCH 541	Human Behavior in Architecture	3	3	-	ME	ARCH 422 or Concurrent
ARCH 561	Restoration and Rehabilitation of Historic Buildings	3	3	-	ME	ARCH 465 or Concurrent
ARCH 562	Architecture & Identity	3	3	-	ME	ARCH 465 or Concurrent
ARCH 571	Green Architecture	3	3	-	ME	ARCH 422 or Concurrent

*: Concurrent