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### **Head**

Raffaello Furlan

### **Faculty**

#### **Professors**

Hatem Ibrahim

#### **Associate Professors**

Djamel Boussaa, Djamel Ouahrani, Mohd Faris Khamidi, Raffaello Furlan, Fodil Fadli, Madhavi Indraganti.

#### **Assistant Professors**

Rashid Saad Al-Matwi, Ahmad Mohammad, Goze Bayram, Tarryn Paquet, Amina Al-Kandari, Abdulla Nasser Alnuaimi, Hamed Yousef Janahi, Jasim Azhar.

### **ABOUT THE DEPARTMENT**

The Department of Architecture and Urban Planning (DAUP) offers undergraduate and graduate programs committed to graduating professional architects and urban designers with the skills and capabilities of designing, innovating, building, operating and managing sustainable buildings and resilient cities and built environment. These include Bachelor of Architecture (B.Arch.) a five-year undergraduate professional architectural degree, a two-year Master of Urban Planning and Design (MUPD) and a Ph.D. with focus on Architecture/Urban Planning. The B.Arch. program attempts to strike a balance between knowledge content and delivery, while implementing a “studio-based” architectural design project, hands-on, active, and outcome-based learning approaches consisting of the Architectural Program Admission Test (APAT). Students enjoy close interaction with faculty members and educational facilities, studios, and laboratories that reflect up-to-date instructional technology. Our faculty members are responsive educators with research and professional expertise that foster the effective delivery of our programs.

### **BACHELOR OF ARCHITECTURE**

## Program Objectives

The objectives of the program are to integrate knowledge-based and skill-based pedagogies in a balanced manner needed to graduate responsive professional architects. The three main objectives are:

1. **Knowledge:** Striking a balance between the different types of knowledge an architect needs. The objective of the program in this context is to graduate architects who can play multiple roles within Qatari society and can compete with their counterparts, while positioning themselves distinctively in a competitive global market.
2. **Culture & Society:** Striving to graduate architects who are able to, effectively and efficiently, deal with the realities of the Qatari local context exemplified by its culture and society and the regional context of the building industry.
3. **Information Technology:** Striving to graduate architects who are well versed in developing design ideas, and in materializing those ideas into practical design and building solutions while utilizing up to date information technology in design.

## Program Learning Outcomes

Under the general theme of sustainable architecture and built environment, the program learning outcomes are as follows:

1. **Design:** Ability to conceptualize and coordinate designs, addressing social, cultural, environmental and technological aspects of architecture.
2. **People and Equity:** Ability to recognize the dialectic relationship between people and the built environment in the GCC/Arab region. Ability to recognize diversity of needs, values, behavioral norms, social patterns as they relate to the creation of the built environment.
3. **Technology:** Ability to utilize cutting edge building technology in design.
4. **Communication and CAD:** Ability to apply visual and verbal communication skills at various stages of architectural design and project delivery processes. Ability to apply and integrate computer technology in design processes and products.
5. **Critical Thinking:** Ability to critically analyze building designs and conduct post occupancy evaluation studies.
6. **Research:** Ability to employ architectural research methods including data collection and analysis to assess and propose improvements in existing built environments.
7. **Collaboration:** Ability to work collaboratively with teams of architects and various interdisciplinary design teams involved in the building industry.

The preceding learning outcomes are directly related course content, instruction, and they are derived based on Student Performance Criteria (SPC) specified by the US National Architectural Accrediting Board (NAAB). Qatar University, Department of Architecture and Urban Planning has received the International Certification (ICert) designation from the National Architectural Accrediting Board for the Bachelor of Architecture (B.Arch.) program. NAAB ICert was granted in 2018 for a term of six years.

## Opportunities

Graduates of the (B.Arch.) Architecture program enjoy multiple employment opportunities as architects working in the fields of design and construction of architectural and urban projects. They have opportunities in government agencies, design firms, and Architectural consulting firms and professional practices, real estate development

companies, in addition to possibilities of establishing their own design firms. Additionally, graduates of the program may find opportunities to pursue post-graduate studies in architecture, urban design and planning, and built environment related disciplines, and eventually pursue advanced careers in architecture and built environment-related realm.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement, the Architecture Program Admission Test (APAT) that includes a graphic and written evaluation and a personal interview.

Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **Additional Requirements**

In addition to the requirement of completing a program of 160 credit hours, which includes the senior graduation design project, students must go through compulsory practical training in the summers of the last two years of the program. Practical training does not count in the overall credit hours but is mandatory. It requires a minimum of 12 weeks (twice 6 weeks in the last two years summer semesters) of architectural design and practice training in design consulting firms, construction companies, architectural engineering consultancies, or relevant government agencies.

### **DEGREE REQUIREMENTS - Major in Architecture**

A minimum of 160 credit hours are required to complete the major in Architecture, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 7 credit hours in college requirements.
- A minimum of 6 credit hours in college electives.
- A minimum of 3 credit hours in major supporting electives.
- A minimum of 50 credit hours in graphic communication and architectural design studios.
- A minimum of 15 credit hours in history and theory.
- A minimum of 18 credit hours in building construction, services, and technology.
- A minimum of 16 credit hours in structural engineering and construction management related courses
- A minimum of 12 credit hours in major electives courses.
- A Compulsory non-credited summer practical training (12 weeks over 2 intensive summer 6 weeks/ semester).

### **Core Curriculum Program (33 credit hours)**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication package (18 CH)**

The number of credit hours required for this package is 18 credit hours. The specific courses to be completed by students are:

- ARAB 100 Arabic I
- ARAB 200 Arabic II
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- DAWA 111 Islamic Culture
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

Courses taken to satisfy concentration or major elective requirements cannot be double-counted toward the requirements of any other package. The number of credit hours required for this package is 3 credit hours, including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement
- UNIV 220 Community Service Learning

### **Natural Science/Mathematics package (3 CH)**

Courses taken to satisfy concentration or major elective requirements cannot be double-counted toward the requirements of any other package. The number of credit hours required for this package is 3 credit hours, including:

- MATH 101 Calculus I

### **Humanities /Fine Arts package (3 CH)**

Courses taken to satisfy concentration or major elective requirements cannot be double-counted toward the requirements of any other package. The number of credit hours required for this package is 3 credit hours, including:

- GEOG 110 General Geography

- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (6 CH)**

Courses taken to satisfy concentration or major elective requirements cannot be double-counted toward the requirements of any other package. The number of credit hours required for this package is 6 credit hours, including:

- CHME 100 Energy for Life
- CMPS 185 Introduction to Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- FINA 101 Essentials of Personal Finance
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- EDPE 120 Physical Fitness
- STAT 101 Statistics I
- GENG 104 Traffic Safety and Human Behavior
- MAGT 100 Introduction to Business
- MAGT 201 Entrepreneurial and Innovation Mindset

### **College Requirements (7 CH)**

Students must complete a minimum of 7 credit hours in college requirements:

- MATH 102 Calculus II
- PHYS 191 General Physics for Engineering I
- PHYS 192 General Physics for Engineering Laboratory I

### **College Electives (6 CH)**

Students must complete a minimum of 6 credit hours in college electives:

- GENG 106 Computer Programming
- GENG 107 Engineering Skills and Ethics
- GENG 360 Engineering Economics
- IENG 330 Operations Research
- MECH 485 Engineering Management

**Major Supporting Electives (3 CH)**

Students must complete a minimum of 3 credit hours in major supporting electives:

- SOCI 205 Sociology of Gulf Society
- SOCI 467 Globalization

**Major Requirements Courses (99 CH)**

Students must complete 99 credit hours from the sub-packages A, B, C, and D as detailed below:

**A) Graphic Communication and Architectural Design Studios (50 CH)**

- ARCT 110 Graphic Communication I
- ARCT 111 Graphic Communication II
- ARCT 120 Introduction to Architecture and Allied Arts
- ARCT 210 Perspective, Shade and Shadow
- ARCT 211 Architectural Design Studio I
- ARCT 212 Architectural Design Studio II
- ARCT 310 Architectural Design Studio III
- ARCT 311 Architectural Design Studio IV
- ARCT 410 Architectural Design Studio V
- ARCT 411 Architectural Design Studio VI
- ARCT 510 Comprehensive Design Studio
- ARCT 511 Senior Project Preparation and Programming
- ARCT 512 Senior Project

**B) History and Theory (15 CH)**

- ARCT 220 Climate and Architecture
- ARCT 221 History and Theory of Architecture I-Early and Western Civilizations
- ARCT 222 History and Theory of Architecture II-Islamic/Arab Civilizations
- ARCT 320 Design Methods and Theories
- ARCT 422 Research Methods in Architecture

**C) Building Construction, Services, and Technology (18 CH)**

- ARCT 230 Materials and Methods of Building Construction I
- ARCT 330 Materials and methods of Building Construction II
- ARCT 331 Environmental Control Systems I (Acoustics and Lighting)
- ARCT 332 Environmental Control Systems II (Sanitary and HVAC)
- ARCT 333 Construction Drawing and Detailing
- ARCT 531 Ethics and Professional Practice

**D) Structural Engineering and Construction Management related courses (16 CH)**

- ARCT 240 Theory of Structures I
- ARCT 241 Theory of Structures II
- ARCT 242 Surveying for Architects
- ARCT 340 Structures and Architectural Form I (Concrete Structures)

- ARCT 341: Structures and Architectural Form II (Steel and Shell Structures)
- ARCT 530 Construction and Project Management

### E) Practical Training Courses - Mandatory (0 CH)

- ARCT 400 Practical Training I
- ARCT 500 Practical Training II

### Major Electives Courses (12 CH)

Students must complete a minimum of 12 credit hours in major elective courses:

- ARCT 100 Independent Study
- ARCT 350 Arts in Architecture
- ARCT 351 Creativity and Innovation
- ARCT 420 Environment-Behavior Studies
- ARCT 421 Introduction to Urban Design and Planning
- ARCT 430 Contract Documents
- ARCT 431 Cost Estimation, Valuation and Qualification
- ARCT 450 Interior Design Workshop
- ARCT 451 Computer Applications in Architecture (Advanced)
- ARCT 452 Contemporary Architecture in the Arab World
- ARCT 453 Criticism in Architecture
- ARCT 520 Landscape Architecture
- ARCT 550 Computer Applications in Urban Planning and G.I.S
- ARCT 551 Historic Preservation and Conservation

### Study Plan

#### Bachelor of Architecture

<b>FIRST YEAR (31 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 202	English Language I Post Foundation	3
	DAWA 111	Islamic Culture	3
	MATH 101	Calculus I	3
	ARCT 120	Introduction to Architecture and Allied Arts	3
	ARCT 110	Graphic Communication (1)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 203	English Language II Post Foundation	3
	ARAB 100	Arabic Language I	3

	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering	1
	MATH 102	Calculus II	3
	ARCT 111	Graphic Communication (2)	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

### SECOND YEAR (32 credit hours)

Term	Course #	Course Title	Credit Hours
Fall	ARCT 211	Architectural Design Studio I	4
	ARCT 240	Theory of Structures I	3
	ARCT 210	Perspective, Shade and Shadow	3
	ARCT 221	History and Theory of Architecture I	3
	ARCT 220	Climate and Architecture	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	ARCT 212	Architectural Design Studio II	4
	ARCT 241	Theory of Structures II	3
	ARCT 230	Materials and Methods of Building Construction I	3
	ARCT 222	History and Theory of Architecture II (Islamic/Arab Civilizations)	3
	ARCT 242	Surveying for Architects	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

### THIRD YEAR (36 credit hours)

Term	Course #	Course Title	Credit Hours
Fall	ARCT 310	Architectural Design Studio III	4
	ARCT 330	Materials and Methods of Building Construction II	3
	ARCT 320	Design Methods and Theories	3
	ARCT 331	Environmental Control Systems I (Acoustics and Lighting)	3
	ARCT 340	Structures and Architectural Form I (Concrete Structures)	2
	ARCTXXX	Major Elective I	3
<b>Total Credit Hours in Semester</b>			<b>18</b>



Spring	ARCT 311	Architectural Design Studio IV	4
	ARCT 333	Construction Drawing and Detailing	3
	ARCT 332	Environmental Control Systems II (Sanitary and HVAC)	3
	ARCT 341	Structures and Architectural Form II (Steel and Shell Structures)	2
	ARCTXXX	Major Elective II	3
	ARAB 200	Arabic Language II	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Summer	ARCT 400	Practical Training I	6 weeks
<b>Total Credit Hours in Semester</b>			<b>18</b>

**FOURTH YEAR (34 credit hours)**

Term	Course #	Course Title	Credit Hours
Fall	ARCT 410	Architectural Design Studio V	5
	ARCT 530	Construction and Project Management	3
	ARCT XXX	Major Elective III	3
	HIST 121	History of Qatar	3
	XXXX XXX	College Elective	3
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring	ARCT 411	Architectural Design Studio VI	5
	ARCT 422	Research Methods in Architecture	3
	ARCT XXX	Major Elective IV	3
	XXXX XXX	Core Curriculum Elective (Social/ Behavioral Sciences Package)	3
	XXXX XXX	Core Knowledge and Skills Package	3
<b>Total Credit Hours in Semester</b>			<b>17</b>
Summer	ARCT500	Practical Training II	6 weeks
<b>Total Credit Hours in Semester</b>			<b>17</b>

**FIFTH YEAR (27 credit hours)**

Term	Course #	Course Title	Credit Hours
Fall	ARCT 510	Comprehensive Design Studio	6
	ARCT 511	Senior Project Preparation and Programming	2

	XXXX XXX	Core Knowledge and Skills Package	3
	SOCI XXX	Major Supporting Electives	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	ARCT 512	Senior Project	4
	ARCT 531	Ethics and Professional Practice	3
	XXXX XXX	College Elective	3
	XXXX XXX	Core Curriculum Elective (Humanities / Fine Arts Package)	3
<b>Total Credit Hours in Semester</b>			<b>13</b>