



الجامعة الألمانية الأردنية  
German Jordanian University

# German Jordanian University

School of Architecture and Built Environment (SABE)

Department of Architecture and Interior Architecture

**Bachelor of Science in Architecture**  
**(Dual Study Track)**

**Study Plan 2024**

# I. Program Objectives

The bachelor's degree program in Architecture and Interior Architecture provides unique multidisciplinary structure to prepare graduates for critical involvement with real practice in the field and enhance their awareness and sensitivity to social responsibilities, sustainability and environmental intervention, the preservation and enhancement of the built heritage, plus the benefits of research and innovation. The Architecture Program emphasizes creativity, teamwork, networking, and the integration of education and the market place. It also encourages the application of available technologies and tools, and develop the ability to discover, acquire, and adapt new knowledge and skills to address contemporary challenges and changing world, such that our graduates are prepared to:

- a. Gaining in-depth understanding of diverse environmental, social, cultural and economic relationships empowering students with creative problem solving and critical thinking skills.
- b. Applying professional architectural design thinking methods and solutions.
- c. Participating in community responsive educational environment to develop the students active socially and ethically responsible personality.
- d. Analyzing the complex intersections between architecture, interior architecture, urban design, built heritage and landscape and the environmental, social, economic, political, historical and cultural phenomena through holistic approach.
- e. Applying theories of design to enable positive impacts on global ecology, human experience and well-being, including conscious responsibility towards cultural identity and the built environment.

The program in Architecture and Interior Architecture shares the core values of the German Jordanian University (GJU), which aim to:

- Training on the model of German universities of applied sciences.
- Academic quality and relevance to market needs, as well as technical excellence and experience in modern sciences and technologies.
- Integrated learning, cultural diversity, integration of study abroad experiences, and language proficiency in multiple languages.
- Knowledge of current issues and preparation for professional practice, global and societal leadership.
- High ethical standards and character, including integrity, responsibility, honesty and respect for others.
- Desire for and ability to engage in lifelong learning for personal and professional development.
- Progressive and motivating climate to foster creativity and innovation

# II. Program Learning Outcomes (PLOs)

The Architecture and Interior Architecture program provides bachelor's students with an understanding of fundamental architectural and management concepts, methodologies, and technologies as demonstrated by:

**PLO 1:** An ability to Instill the role of the design process in shaping the built environment and conveying the methods by which the design, urban design, heritage conservation, and landscape processes integrate multiple factors in different settings and scales.

**PLO 2:** An ability to develop the student's skill to represent and communicate their design ideas using wide variety of manual and digital media as well as oral and written forms.

**PLO 3:** An ability to demonstrate a structured overview and critical thinking insights regarding the cultural, historical, theoretical and human aspects of built environment.

**PLO 4:** An ability to Introduce different research methods in the architecture, interior architecture, landscape, built heritage conservation and urbanism fields including fostering individual and team leadership and inclusive environments.

**PLO 5:** An ability to explore and use current and latest construction technologies, building systems and building information modeling concepts and techniques in developing creative design process.

**PLO 6:** An ability to focus on integrating various building systems and technologies necessary for functional building performance concerning the design solution including mechanical, electrical, acoustical, illumination and other related systems.

**PLO 7:** An ability to understand and apply the various codes, specifications, and regulations governing the construction and building processes management locally and globally including best professional practice, ethical, legal, financial and social responsibility.

## Course Delivery Methods

Courses are in one of the following three methods:

- **Face-to-Face (F2F) Method**

Courses that are taught through face-to-face learning and are delivered at the university campus.

- **Blended (BLD) Method**

Courses in which teaching consists of face-to-face learning and asynchronous E-learning. The face-to-face learning takes place at the university campus. Asynchronous E-learning takes place through activities, tasks, educational duties, and assignments through the virtual E-learning platforms (Moodle and MyGJU) without direct meetings with course instructors.

- **Online (OL) Method**

Courses in which teaching consists of synchronous E-learning and asynchronous E-learning. The synchronous E-learning takes place through interactive virtual meetings between instructors and students directly through the virtual E-learning platform (MS Teams). The asynchronous E-learning takes place through activities, tasks, educational duties, and assignments through the virtual E-learning platforms (Moodle and MyGJU) without direct meetings with course instructors.

## III. Admission Requirements

- The Jordanian General Secondary Certificate or an equivalent certificate with a minimum average of 80% (Scientific Stream) for applicants to the B.Sc. Program in Architecture.
- Entrance Exam and Interview with Portfolio illustrating applicant abilities and development skills of the visual world using freehand sketching, photography, and computer media.

## Placement Tests

Applicants must sit for placement tests in the Arabic Language, the English Language, and Mathematics to determine whether the applicant may be required to take remedial courses in the mentioned subjects. Depending on or the applicant scores in the placement tests, some of the following 3-credit-hour remedial courses are required:

Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARB0099	Elementary Arabic	3	3	3	-	OL	Placement test
ENGL0098	Elementary English	3	3	3	-	F2F	Placement test
ENGL0099	Intermediate English	3	3	3	-	F2F	ENGL0098
MATH0099	Pre-Math	3	3	3	-	OL	Placement test
<b>Total</b>		<b>12</b>	<b>12</b>	<b>12</b>	<b>0</b>		

- Remedial courses are to be completed and passed within the first year of enrollment.
- Passing grade of remedial courses is 60%.
- ECTS (B.Sc.): is the European Credit Transfer and Accumulation, One ECTS is equivalent to 30 actual workload hours.

## IV. Degree Requirements

The requirements to obtain a B.Sc. degree in Architecture and Architecture/ Interior Architecture are the following:

- a. Successfully completing the **177** credit hours of compulsory and elective courses-
- b. A minimum of **12 credit** hours of elective courses are to be taken at a partner university in Germany; **7 credit** hours of technical elective courses and **5 credit** hours of project elective courses are to be taken at a partner university in Germany.
- c. Students must complete a **20-week** of international internship at a professional firm in Germany.

## I. Framework for B.Sc. Degree (Credit hours)

Classification		Credit Hours			ECTS		
		Compulsory	Elective	Total	Compulsory	Elective	Total
University Requirements	general	21	-	21	25	-	25
	Dual Studies	6	-	6	12	-	12
School Requirements		19	-	19	31	-	31
Program Requirements		114	17	131	198	34	232
<b>Total</b>		<b>160</b>	<b>17</b>	<b>177</b>	<b>266</b>	<b>34</b>	<b>300</b>

Course Delivery Method	Credit Hours	Percentage
Online Courses	18	10%
Blended Courses	53	30%
Face-to-Face Courses	106	60%
<b>Total</b>	<b>177</b>	<b>100%</b>

### 1. University Requirements: (27 credit hours)

#### 1.1. Compulsory: (21 credit hours)

Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARB100	Arabic	3	3	3	-	OL	ARB0099
ENGL1001	Upper-Intermediate English	3	3	3	-	F2F	ENGL0099
ENGL1002	Advanced English	3	3	3	-	F2F	ENGL1001
GERL101B1	German I B1-Track	3	6	9	-	F2F	-
GERL102B1	German II	3	6	9	-	F2F	GERL101B1
GERL102B2							
MILS100	Military Science	3	2	3	-	OL	-
NE101	National Education	3	2	3	-	OL	-
NEE101	National Education in English					OL	-
<b>Total</b>		<b>21</b>	<b>25</b>	<b>33</b>	<b>0</b>		

#### 1.2. Dual Study: (6 credit hours)

Course ID	Course Name	Credit Hours	ECTS	Contact Hours	Type	Prerequisites / Corequisites
				Prac.		
DS101	Dual Study Practical I	3	3	12 weeks	F2F	Department Approval (Enrolment in DS track), Co-Requisite ARC1202-DS
DS201	Dual Study Practical II	3	3	12 weeks	F2F	DS101, Co-Requisite SABE 231- DS
DS301	Dual Study Practical III	0	6	12 weeks	F2F	DS201, Co-Requisite ARCH362-DS
<b>Total</b>		<b>6</b>	<b>12</b>			

## 2. School Requirements: (19 credit hours)

Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
ARC111	Fundamentals of Design I		4	8	2	4	F2F	-
ARCH1131	Technical Illustration I		3	4	0	6	F2F	-
DES1201	Freehand Sketching		2	4	0	4	F2F	-
ARCH 2302	Islamic Art and Architecture		3	4	3	-	F2F	ARCH1301, ARB0099, ENGL0099, Math0099
ARCH1011	Technical Writing		1	1	1	-	F2F	-
GERL201B1	German III	B1-Track	3	4	6	-	F2F	GERL102B1 or GERL102B2
GERL201B2		B2-Track						GERL102B2
GERL202B1	German IV	B1-Track	3	6	9	-	F2F	GERL201B1 or GERL201B2
GERL202B2		B2-Track						GERL201B2
<b>Total</b>			<b>19</b>	<b>31</b>	<b>21</b>	<b>14</b>		

## 3. Program Requirements (131 credit hours)

### 3.1. Compulsory Requirements: (114 credit hours)

#### 3.1.1. Compulsory Requirements (Common): (82 credit hours)

Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
ARCH1140	Experiencing the Built Environment		2	3	2	-	F2F	-
ARCH1134	Fundamentals of Design II		5	8	2	6	F2F	ARC111
ARCH1132	Technical Illustration II		3	4	0	6	F2F	ARCH1131
ARCH150	Physics for Architects		3	3	3	-	OL	-
MATH101	Calculus I		3	5	3	-	BLD	MATH0099
ARCH1201	Architectural Rendering and Presentation Techniques		2	3	1	2	BLD	ARCH1131, DES1200
ARCH1202-DS	Computer Visualization		3	5	-	6	BLD	ARCH1131, Co-Requisite DS101
ARCH1301	Comparative History of Architecture		3	3	3	-	BLD	-
SABE231-DS	Computing Fundamentals for Architects and Designers		4	4	2	4	BLD	ARCH1202, ARB0099, ENGL0099, Co-Requisite DS201
ARC211	Architectural Design: Methods and Typologies		5	10	1	8	F2F	ARCH1134, ARB0099, ENGL0099, Math0099
ARCH221	Modern Foundations of Architecture		3	3	3	-	F2F	ARCH1301, ARCH2302, ARB0099, ENGL0099
ARCH261	Structural Systems I		3	3	3	-	F2F	ARCH150, ARB0099, ENGL0099, Math0099
ARCH262	Utility Planning and Design I		3	3	3	-	F2F	ARCH150, ARB0099, ENGL0099, Math0099
ARCH323	Contemporary Architecture		2	3	2	-	F2F	ARCH221
ARCH341	Landscape Architecture		3	5	2	2	F2F	ARC211
ARCH354	Project Management and Site Organization I		3	4	3	-	F2F	ARC211

ARCH362-DS	Utility Planning and Design II		3	3	3	-	BLD	ARCH262, Co-Requisite DS301
ARCH4501	Contracts, Specifications, and Quantity Surveying		3	3	3	-	BLD	ARCH354
AC323	Heritage Conservation and Management		3	3	3	-	BLD	ARCH1301
ARCH3101	Parametric Architecture		5	10	1	8	BLD	ARC2102, for Architecture, IARC2101, for Interior Architecture
GERL301B1	German V	B1-Track	3	6	9	-	F2F	GERL202B1 or GERL202B2
GERL301B2		B2-Track						GERL202B2
GERL302B1	German VI	B1-Track	3	6	6	-	F2F	GERL301B1 or GERL301B2
GERL302B2		B2-Track						GERL301B2
ARCH4904	International Internship		12	30	20 weeks		F2F	Dept. Approval
<b>Total</b>			<b>82</b>	<b>130</b>	<b>58</b>	<b>42</b>		

### 3.1.2. Compulsory Requirements (Architecture Track): (32 credit hours)

Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH2501	Building Construction Materials and Processes I	3	4	2	2	F2F	ARCH1131, ARB0099, ENGL0099, MATH0099
ARCH2502	Building Construction Materials and Processes II	3	4	2	2	F2F	ARCH2501
ARC2102	Architectural Design II	5	10	1	8	F2F	ARC211
ARCH 3507	Digital Surveying of Built Environment	3	3	0	6	BLD	ARCH1202
ARCH361	Structural Systems II	3	3	3	0	F2F	ARCH261
ARC346	Urban Studies	3	4	3	0	BLD	ARC211
ARC541	Urban Design	5	10	1	8	F2F	ARC346
ARCH591	Graduation Project I (Arch.)	1	10	1	0	F2F	Dept. Approval
ARCH592	Graduation Project II (Arch.)	6	20	0	12	F2F	ARCH591, ARC541
<b>Total</b>		<b>32</b>	<b>68</b>	<b>13</b>	<b>38</b>		

### 3.1.3. Compulsory Requirements (Interior Architecture Track): (32 credit hours)

Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH2505	Interior Construction Works I	3	4	2	2	F2F	ARCH1131, ARB0099, ENGL0099, MATH0099
ARCH2506	Interior Construction Works II	3	4	2	2	F2F	ARCH2505
IARC2101	Interior Architectural Design	5	10	1	8	F2F	ARC211, ARB0099, ENGL0099, MATH0099
ARCH315	Furniture Design	3	4	2	2	F2F	ARC211
IARC3507	Material & Space	3	3	2	3	F2F	ARC211

ARCH363	Lighting Design	3	3	2	2	BLD	IARC2101
ARC441	Adaptive Re-Use of Buildings and Sites	5	10	1	8	BLD	IARC3507
ARCH593	Graduation Project I (Int.)	1	10	1	0	F2F	Dept. Approval
ARCH594	Graduation Project II (Int.)	6	20	0	12	F2F	ARCH593, ARC441
<b>Total</b>		<b>32</b>	<b>68</b>	<b>13</b>	<b>39</b>		

### 3.2. Electives Requirements: (17 credit hours)

#### 3.2.1. Elective Requirements (Architecture Track): (17 credit hours)

A minimum of 17 credit hours are required. For each track, 10 credit hours are required as Projects, (5CH) to be registered at GJU from the elective courses whereas another 7 credits hours are required as elective from the technical courses to be registered at the partner university in Germany.

Projects are labeled with \*

Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARC311	High-Rise Buildings Design and Planning*	5	10	1	8	BLD	ARC2102
ARC312	Design of Large Span Buildings*	5	10	1	8	BLD	ARC2102
ARC313	Design of Cultural and Civic Buildings*	5	10	1	8	BLD	ARC2102
ARC343	Infill Architecture*	5	10	1	8	BLD	ARC2102
ARC344	Housing Planning and Design*	5	10	1	8	BLD	ARC2102
ARC371	Design of Sustainable Buildings*	5	10	1	8	BLD	ARC2102
ARC411	Healthcare Facilities Planning and Design*	5	10	1	8	BLD	ARC2102
ARC412	Tourist Facilities Design*	5	10	1	8	BLD	ARC2102
ARC413	Design of Mixed-Use Buildings*	5	10	1	8	BLD	ARC2102
ARC441	Adaptive Re-Use of Buildings and Sites*	5	10	1	8	BLD	ARC2102
ARC414	Advanced Architectural Design Project*	5	10	1	8	BLD	BSC001
ARCH401	Special Topics in Architecture I	3	6	3	0	BLD	BSC001
ARCH403	Special Topics in Architecture II	2	4	3	0	BLD	BSC001
ARCH405	Special Topics in Architecture III	1	2	1	0	BLD	BSC001
ARC341	Housing	2	4	2	0	BLD	BSC001
ARCH423	Contemporary Issues in Architectural Design	3	6	3	0	BLD	BSC001
ARCH425	Regional and Vernacular Architecture	3	6	3	0	BLD	BSC001
ARCH426	Environmental Psychology and Sociology	3	6	3	0	BLD	BSC001
ARCH432	Geographic Information Systems	3	6	2	2	BLD	BSC001
ARCH442	Human Response to the Built Environment	3	6	2	2	BLD	BSC001
ARCH451	Design and Build	3	6	2	2	BLD	BSC001
ARC453	Building and Site Documentation	3	6	2	2	BLD	BSC001
ARCH457	Advanced Construction Systems	3	6	2	2	BLD	BSC001
ARCH554	Project Management and Site Organization II	3	6	3	0	BLD	BSC001
ARCH571	Architectural Environmental Systems	3	6	3	0	BLD	BSC001
IARC316	Principles of Interior Design	3	6	2	2	BLD	BSC001
<b>Minimum required</b>		<b>17</b>	<b>34</b>	-	-		

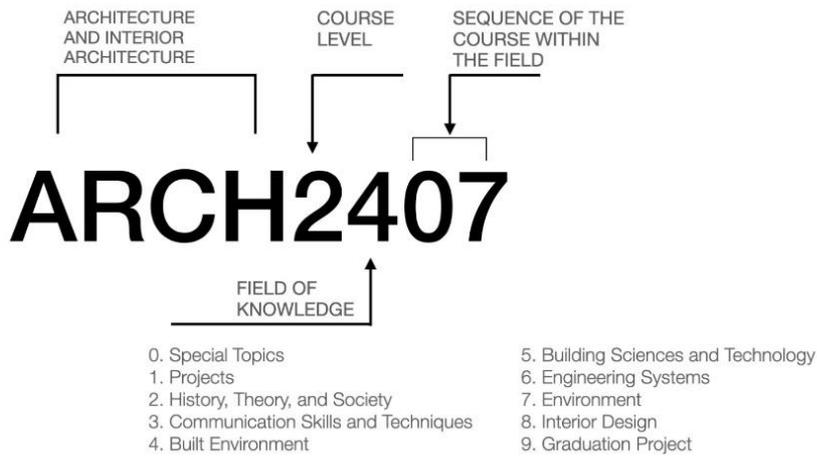
### 3.2.2 Elective Requirements ((Interior Architecture Track): (17 credit hours)

A minimum of 17 credit hours are required. For each track, 10 credit hours are required as Projects, (5CH) to be registered at GJU from the elective courses whereas another 7 credits hours are required as elective from the technical courses to be registered at the partner university in Germany.

Projects are labeled with \*

Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
IARC311	Domestic Environments Design Studio*	5	10	1	8	BLD	IARC2101
IARC312	Learning Environments Design Studio*	5	10	1	8	BLD	IARC2101
IARC313	Workplace Design Studio*	5	10	1	8	BLD	IARC2101
IARC314	Cultural and Civic Environments Design Studio*	5	10	1	8	BLD	IARC2101
IARC315	Theatre Set Design*	5	10	1	8	BLD	IARC2101
IARC318	Site-Specific Furniture Design*	5	10	1	8	BLD	IARC2101
IARC317	Core and Shell Design*	5	10	1	8	BLD	IARC2101
IARC371	Sustainable Environments Design Studio*	5	10	1	8	BLD	IARC2101
IARC411	Healthcare Design Studio*	5	10	1	8	BLD	IARC2101
IARC412	Hospitality Design Studio*	5	10	1	8	BLD	IARC2101
IARC413	Museum and Exhibition Design*	5	10	1	8	BLD	IARC2101
IARC414	Advanced Interior Design Studio*	5	10	1	8	BLD	BSC001
ARCH402	Special Topics in Interior Architecture I	3	6	3	0	BLD	BSC001
ARCH404	Special Topics in Interior Architecture II	2	4	3	0	BLD	BSC001
ARCH406	Special Topics in Interior Architecture III	1	2	1	0	BLD	BSC001
ARCH422	Contemporary Issues in Interior Architecture	3	6	3	0	BLD	BSC001
ARCH451	Design and Build	3	6	2	2	BLD	BSC001
ARC453	Building and Site Documentation	3	6	2	2	BLD	BSC001
ARCH454	Interior Textiles, Accessories, and Resources	3	6	3	0	BLD	BSC001
ARCH554	Project Management and Site Organization II	3	6	3	0	BLD	BSC001
ARCH571	Architectural Environmental Systems	3	6	3	0	BLD	BSC001
<b>Minimum required</b>		<b>17</b>	<b>34</b>	-	-		

**Course Code:**



# Study Plan Guide for a B.Sc. Degree in (Architecture)<sup>c</sup>

First Year							
First Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARC111	Fundamentals of Design I	4	8	2	4	F2F	-
ARCH1131	Technical Illustration I	3	4	0	6	F2F	-
DES1201	Freehand Sketching	2	4	0	4	F2F	-
MATH101	Calculus I	3	5	3	0	OL	MATH0099
ARCH 150	Physics for Architects	3	3	3	-	F2F	-
GERL 101	German I B1-track	3	6	9	0	F2F	-
<b>Total</b>		<b>18</b>	<b>30</b>	<b>17</b>	<b>14</b>		

First Year							
Second Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH1134	Fundamentals of Design II	5	8	2	6	F2F	ARC 111
ARCH1132	Technical Illustration II	3	4	-	6	F2F	ARCH1131
ARCH1201	Architectural Rendering and Presentation Techniques	2	3	1	2	BLD	ARCH1131, DES1200
ARCH1301	Comparative History of Architecture	3	3	3	0	BLD	-
ARCH1140	Experiencing the Built Environment	2	3	2	-	F2F	-
ENGL1001	Upper-Intermediate English	3	3	3	-	F2F	ENGL0099
GERL102B1	German II B1 track	3	6	9	-	F2F	GERL101B1
GERL102B2	German II B2 track					BLD	GERL101B2
<b>Total</b>		<b>21</b>	<b>30</b>	<b>20</b>	<b>14</b>		

First Year							
Summer semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
DS101	Dual Studies Practical I	3	3	0	3	F2F	Department Approval (Enrolment in DS track), Co-Requisite ARC1202-DS
ARCH1202-DS	Computer Visualization	3	5	-	6	BLD	ARCH1131, Co-Requisite DS101
<b>Total</b>		<b>6</b>	<b>8</b>	<b>0</b>	<b>9</b>		

<sup>c</sup>The following study plan guide does not take into account possible remedial courses.

Second Year								
First Semester								
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites	
				Lect.	Prac.			
ARC211	Architectural Design I: Methods and Typologies	5	10	1	8	F2F	ARCH1134, ARB0099, ENGL0099, Math0099	
ARCH2501	Building Construction Materials and Processes I	3	4	2	2	F2F	ARCH1131, ARB0099, ENGL0099, MATH0099	
ARCH2302	Islamic Art and Architecture	3	4	3	-	F2F	ARCH1301, ARB0099, ENGL0099, Math0099	
ARCH262	Utility Planning and Design I	3	3	3	0	BLD	ARCH150, ARB0099, ENGL0099, Math0099	
GERL201B1	German III	B1 track	3	4	6	-	F2F	GERL102B1
GERL201B2		B2 track						GERL102B1
<b>Total</b>		<b>17</b>	<b>25</b>	<b>15</b>	<b>10</b>			

Second Year								
Second Semester								
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites	
				Lect.	Prac.			
ARC2102	Architectural Design II	5	10	1	8	F2F	ARC211	
ARCH2502	Building Construction Materials and Processes II	3	4	2	2	F2F	ARCH2501	
ARCH3507	Digital Surveying of Built Environment	3	3	0	6	BLD	ARCH1202	
ARCH221	Modern Foundations of Architecture	3	3	3	0	F2F	ARCH1301, ARCH2302, ARB0099, ENGL0099	
GERL202B1	German IV	B1 track	3	6	9	-	F2F	GERL201B1
GERL202B2		B2 track						GERL201B2
<b>Total</b>		<b>17</b>	<b>26</b>	<b>17</b>	<b>20</b>			

Second Year							
Summer semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
DS201	Dual Studies Practical II	3	3	0	3	F2F	DS101, ARCH1131, ARB0099, ENGL0099, Co-Requisite SABE 231- DS
SABE 231- DS	Computing Fundamentals for Architects and Designers	4	4	2	4	BLD	ARCH1202-DS, Co-Requisite DS201
<b>Total</b>		<b>7</b>	<b>7</b>	<b>2</b>	<b>7</b>		

Third Year								
First Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
ARCH3101 or ARC3**	Parametric Architecture Or Project Elective		5	10	1	8	BLD	ARC2102, for Architecture, IARC2101, for Interior Architecture
ARCH341	Landscape Architecture		3	5	2	2	F2F	ARC211
ARCH323	Contemporary Architecture		2	3	2	-	BLD	ARCH221
ARCH261	Structural Systems I		3	3	3	0	F2F	ARCH150, ARB0099, ENGL0099, Math0099
AC323	Heritage Conservation and Management		3	3	3	-	F2F	ARCH1301
GERL301B1	German V	B1 track	3	6	9	-	F2F	GERL202B1
GERL301B2		B2 track						GERL202B2
<b>Total</b>			<b>19</b>	<b>30</b>	<b>20</b>	<b>10</b>		

Third Year								
Second Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
ARCH3101 Or ARC4**	Parametric Architecture Or Project Elective		5	10	1	8	BLD	ARC2102, for Architecture
ARCH1011	Technical Writing		1	1	1	-	F2F	-
ARC346	Urban Studies		3	4	3	0	F2F	ARC211
ENGL1002	Advanced English		3	3	3	-	F2F	ENGL1001
GERL302B1	German VI	B1 track	3	6	6	-	F2F	GERL301B1 or GERL301B2
GERL302B1		B2 track						GERL301B2
<b>Total</b>			<b>15</b>	<b>24</b>	<b>14</b>	<b>8</b>		

Third Year								
Summer semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
DS301	Dual Studies Practical III		0	6	0	3	F2F	DS201, ARB099, ENGL099, MATH 099, Co-Requisite ARCH362-DS
ARCH362- DS	Utility Planning and Design II		3	3	3	0	BLD	ARCH262, Co- Requisite DS301
<b>Total</b>			<b>3</b>	<b>9</b>	<b>3</b>	<b>3</b>		

Fourth Year							
First Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARC414	Advanced Architectural Design Project	5	10	1	8	BLD	BSC001
ARCH361	Structural System II	3	3	3	-	F2F	ARCH261
	Theory and Technical Electives Elective I	3	6	-	3	BLD	BSC001
	Theory and Technical Electives Elective II	3	6	-	3	BLD	BSC001
	Theory and Technical Electives Elective III	1	2	-	3	BLD	BSC001
<b>Total</b>		<b>15</b>	<b>27</b>	<b>7</b>	<b>17</b>		

<sup>d</sup> Courses attended and/or passed during International Internship are not transferable.

Fourth Year							
Second Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH4904	International Internship <sup>d</sup>	12	30	20 weeks		F2F	Dept. Approval
<b>Total</b>		<b>12</b>	<b>30</b>	<b>0</b>	<b>0</b>		

**German year prerequisites are: Passing the following courses:**

- ARCH3101 Parametric Architecture
- ARCH341 Landscape Architecture
- ARCH261 Structural Systems I
- **DS301 Dual Studies Practical III**
- ARCH262 Utility Planning and Design I
- ARCH221 Modern Foundations of Architecture
- SABE231 Computing Fundamentals for Architects and Designers
- ARCH3507 Digital Surveying of Built Environment

Fifth Year							
First Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH591	Graduation Project I (Arch.)	1	10	1	-	F2F	Dept. Approval
ARC541	Urban Design	5	10	1	8	BLD	ARC346
ARCH354	Project Management and Site Organization I	3	4	3	-	F2F	ARC211
ARB100	Arabic	3	3	3	-	OL	ARB0099
<b>Total</b>		<b>12</b>	<b>27</b>	<b>8</b>	<b>8</b>		

Fifth Year							
Second Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH592	Graduation Project II (Arch.)	6	20	-	12	F2F	ARCH 591 and ARC541
ARCH4501	Contracts, Specifications, and Quantity Surveying	3	3	3	-	BLD	ARCH354
MILS100	Military Sciences	3	2	3	-	OL	-
NE101	National Education	3	2	3	-	OL	-
<b>Total</b>		<b>15</b>	<b>27</b>	<b>9</b>	<b>12</b>		

# Study Plan Guide for a B.Sc. Degree in (Interior Architecture)<sup>c</sup>

First Year							
First Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARC111	Fundamentals of Design I	4	8	2	4	F2F	-
ARCH1131	Technical Illustration I	3	4	0	6	F2F	-
DES1201	Freehand Sketching	2	4	0	4	F2F	-
MATH101	Calculus I	3	5	3	0	OL	MATH0099
ARCH 150	Physics for Architects	3	3	3	-	F2F	-
GERL101B1	German I B1-track	3	6	9	0	F2F	-
<b>Total</b>		<b>18</b>	<b>30</b>	<b>17</b>	<b>14</b>		

First Year							
Second Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH1134	Fundamentals of Design II	5	8	2	6	F2F	ARC 111
ARCH1132	Technical Illustration II	3	4	-	6	F2F	ARCH1131
ARCH1201	Architectural Rendering and Presentation Techniques	2	3	1	2	BLD	ARCH1131, DES1200
ARCH1301	Comparative History of Architecture	3	3	3	0	BLD	-
ARCH1140	Experiencing the Built Environment	2	3	2	-	F2F	-
ENGL1001	Upper-Intermediate English	3	3	3	-	F2F	ENGL0099
GERL102B1	German II B1 track	3	6	9	-	F2F	GERL101B1
GERL102B2	German II B2 track					BLD	GERL101B2
<b>Total</b>		<b>21</b>	<b>30</b>	<b>20</b>	<b>14</b>		

First Year							
Summer semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
DS101	Dual Studies Practical I	3	3	0	3	F2F	Department Approval (Enrolment in DS track), Co-Requisite ARCH1801-DS
ARCH1202-DS	Computer Visualization	3	5	-	6	BLD	ARC1131, Co-Requisite DS101
<b>Total</b>		<b>6</b>	<b>8</b>	<b>0</b>	<b>9</b>		

<sup>c</sup> The following study plan guide does not take into account possible remedial courses.

Second Year								
First Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
ARC211	Architectural Design I: Methods and Typologies		5	10	1	8	F2F	ARCH1134
ARCH2505	Interior Construction Works I		3	4	2	2	F2F	ARCH1131, ARB0099, ENGL0099, MATH0099
ARCH2302	Islamic Art and Architecture		3	4	3	-	F2F	ARCH1301, ARB0099, ENGL0099, Math0099
ARCH262	Utility Planning and Design I		3	3	3	0	BLD	ARCH150, ARB0099, ENGL0099, Math0099
GERL201B1	German III	B1 track	3	4	6	-	F2F	GERL102B1 or GERL102B2
GERL201B2		B2 track						GERL102B1
<b>Total</b>			<b>17</b>	<b>25</b>	<b>15</b>	<b>10</b>		

Second Year								
Second Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
IARC2101	Interior Architectural Design		5	10	1	8	F2F	ARC211, ARB0099, ENGL0099, MATH0099
ARCH2506	Interior Construction Works II		3	4	2	2	F2F	ARCH2505, , ARB0099, ENGL0099, MATH0099
ARCH363	Lighting Design		3	3	2	2	BLD	ARC211
ARCH221	Modern Foundations of Architecture		3	3	3	0	F2F	ARCH1301, ARCH2302, ARB0099, ENGL0099
GERL202B1	German IV	B1-Track	3	6	9	-	F2F	GERL 201B1 or GERL201B2
GERL202B2		B2-Track						GERL201B2
<b>Total</b>			<b>17</b>	<b>26</b>	<b>19</b>	<b>16</b>		

Second Year								
Summer semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
DS201	Dual Studies Practical II		3	3	0	3	F2F	DS101, ARB099, ENGL099, MATH 099, Co-Requisite SABE 231- DS
SABE 231-DS	Computing Fundamentals for Architects and Designers		4	4	2	4	BLD	ARCH1202-DS, Co-Requisite DS201
<b>Total</b>			<b>7</b>	<b>7</b>	<b>2</b>	<b>7</b>		

Third Year								
First Semester								
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites	
				Lect.	Prac.			
ARCH3101 or IARC3**	Parametric Architecture Or Project Elective	5	10	1	8	BLD	IARC2101	
ARCH341	Landscape Architecture	3	5	2	2	F2F	ARCH211	
ARCH323	Contemporary Architecture	2	3	2	-	BLD	ARCH221	
ARCH261	Structural Systems I	3	3	3	0	F2F	ARCH150	
IARC3507	Material & Space	3	3	2	3	F2F	ARCH211	
GERL301B1	German V	B1 track	3	6	9	-	F2F	GERL202B1 GERL202B2
GERL301B2		B2 track						GERL202B2
<b>Total</b>		<b>19</b>	<b>30</b>	<b>19</b>	<b>13</b>			

Third Year								
Second Semester								
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites	
				Lect.	Prac.			
ARCH3101 Or IARC400	Parametric Architecture Or Project Elective	5	10	1	8	BLD	IARC2101	
ARCH1011	Technical Writing	1	1	1	-	F2F	-	
ARCH315	Furniture Design	3	4	2	2	F2F	ARCH211	
ENGL1002	Advanced English	3	3	3	-	F2F	ENGL1001	
GERL302B1	German VI	B1-Track	3	6	6	-	F2F	GERL301B1 or GERL301B2
GERL302B2		B2-Track						GERL301B2
<b>Total</b>		<b>15</b>	<b>24</b>	<b>13</b>	<b>10</b>			

Third Year							
Summer semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
DS301	Dual Studies Practical III	0	6	0	3	F2F	DS201, ARB099, ENGL099, MATH 099, Co-Requisite ARCH362-DS
ARCH362- DS	Utility Planning and Design II	3	3	3	0	BLD	ARCH262, Co- Requisite DS301
<b>Total</b>		<b>3</b>	<b>9</b>	<b>3</b>	<b>3</b>		

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Fourth Year							
First Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
IARC414	Advanced Interior Design Studio	5	10	1	8	BLD	BSC001
AC323	Heritage Conservation and Management	3	3	3	-	F2F	ARCH1301
	Theory and Technical Electives Elective I	3	6	0	3	BLD	BSC001
	Theory and Technical Electives Elective II	3	6	0	3	BLD	BSC001
	Theory and Technical Electives Elective III	1	2	0	3	BLD	BSC001
<b>Total</b>		<b>15</b>	<b>27</b>	<b>4</b>	<b>17</b>		

Fourth Year							
Second Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARC459	International Internship <sup>d</sup>	12	30	20 weeks		F2F	Dept. Approval
<b>Total</b>		<b>12</b>	<b>30</b>				

<sup>d</sup> Courses attended and/or passed during International Internship are not transferable

**German year prerequisites are: Passing the following courses:**

- ARCH3101 Parametric Architecture
- ARCH341 Landscape Architecture
- ARCH261 Structural Systems I
- DS301 Dual Studies Practical III
- ARCH262 Utility Planning and Design I
- ARCH221 Modern Foundations of Architecture
- SABE231 Computing Fundamentals for Architects and Designers
- IARC3507 Material & Space

Fifth Year							
First Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH593	Graduation Project I (Int.)	1	10	1	-	F2F	Dept. Approval
ARC441	Adaptive Re-Use of Buildings and Sites	5	10	1	8	BLD	IARC3507
ARCH354	Project Management and Site Organization I	3	4	3	-	F2F	ARC 211
ARB100	Arabic	3	3	3	-	OL	ARB0099
<b>Total</b>		<b>12</b>	<b>27</b>	<b>8</b>	<b>8</b>		

Fifth Year							
Second Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ARCH594	Graduation Project II (Int.)	6	20	-	12	F2F	ARCH 593 and ARCH541
ARCH458	Contracts, Specifications, and Quantity Surveying	3	3	3	-	BLD	ARCH354
MILS100	Military Sciences	3	2	3	-	OL	-
NE101	National Education	3	2	3	-	OL	-
<b>Total</b>		<b>15</b>	<b>27</b>	<b>9</b>	<b>12</b>		

# Course Description

## 1. School Requirements

<b>ARC111 Fundamentals of Design I</b>	<b>4 Cr Hr</b>	<b>8 ECTS</b>
<p>A project-based course; introduction to the basic principles of order using two- and three-dimensional compositions of basic design elements: point, line, and plane, addition and subtraction through the intersection of these elements and the potential elusive volumes that make space shapes: circle, square, and triangle; spatial organization: symmetry and balance, unity, repetition, and rhythm, transformation, and datum; order: focality and centralization radiality, linearity, and grid. The course will establish space explorations through movement and circulation. Additional emphasis will be on color theory, textures and tones. Class assignments will be based on abstract concepts while acquainting students with using different media and presentation techniques.</p>		
<i>Prerequisites: -</i>		
<b>ARCH1131 Technical Illustration I</b>	<b>3Cr Hr</b>	<b>4 ECTS</b>
<p>A project-based course; it aims to teach students principles of professional drafting of simple geometric constructions and products. It deals with manual sketching skills necessary for creating drafts, and then simultaneously evolves into professional computer tools for production of different technical illustration: orthographic projections, 3D projections (isometric, axonometric, oblique), planes, sections, and elevations and details.</p>		
<i>Prerequisites:</i>		
<b>ARCH2302 Islamic Art and Architecture</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
<p>The course reviews the development of architecture and design in the Islamic context, with a focus on the MENA region. It discusses examples of works from the Umayyad, Abbasid, Mamluk, and Ottoman periods, exploring the role of Islamic beliefs, ideas, and myths, alongside the diverse inhabitants in the evolution of city form, architecture, and design. The course also addresses Islamic visual arts, explaining technical complexities, decorative themes, meanings, and the arts of books, textiles, metalwork, pottery, tiles, woodwork, and glasswork. It considers the influence of Islamic beliefs, ideas, and myths, together with the diverse inhabitants, on the evolution of visual arts. The course also examines contemporary attempts to achieve identity in MENA.</p>		
<i>Prerequisites: ARCH1301, ARB0099, ENGL0099, Math0099</i>		
<b>DES1201 Freehand Sketching</b>	<b>2 Cr Hr</b>	<b>4 ECTS</b>
<p>A foundation school requirement practical course introducing students to the art of freehand sketching for still-life and quick sketches capturing the essence of a subject with rapid strokes, focusing on gesture, proportions, and basic forms. Students learn the fundamental rules of drawing, including textural and tonal qualities. By the end of the course students develop skills such as hand-eye coordination, observation, and creative expression, using sketchbooks as tools for sketching, drawing, and recording existing events and visualizing concepts.</p>		
<i>Prerequisites:</i>		
<b>ARCH1011 Technical Writing</b>	<b>1 Cr Hr</b>	<b>1 ECTS</b>
<p>This course teaches the students the basic tools and skills required to conduct technical research and communicate ideas regarding architecture and its relevant topics. By the end students should be skilled in varied writing forms, contemporary tools, and ethical documentation and communication of ideas related to the field of design and architecture.</p>		
<i>Prerequisites: -</i>		

## 2. Compulsory Requirements (Common)

<b>ARCH1134 Fundamentals of Design II</b>	<b>5 Cr Hr</b>	<b>8 ECTS</b>
A project-based course; it provides an understanding to the complex nature of space forming by synthesizing its basic elements; emphasizing on constructive typology and form generation; formal expression and dependence/independence of mass and space using solid and void, ratio and proportions, and numerical logic. It provides an understanding of the different spatial relationships, ordering principles, and arrangements in relation to place-making and preferences. Topics that may be covered include measured drawings, small objects, 2-D and 3-D compositions of abstract and real nature, etc.		
<i>Prerequisites: ARCH111</i>		
<b>ARCH1132 Technical Illustration II</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
A project-based course; it aims to teach students principles of advanced 3D projections “perspective”; both: one-point & two-point in addition to exterior & interior. On the other hand, it helps students to cast shades & shadows on horizontal & vertical planes and different 3D projections (axonometric, isometric, and perspectives), while using computer-based tools.		
<i>Prerequisites: ARCH1131</i>		
<b>ARCH1140 Experiencing the Built Environment</b>	<b>2 Cr Hr</b>	<b>3 ECTS</b>
The course covers the basic principles of human connection with the built environment psychologically, socially and culturally. The definition of overt and covert of human behavior in built environment. The major theories of human motivation, perception and cognition. How people perceive, understand and appreciate architectural form and space. How people interact socially within a perceived architectural space. How people belong culturally to an environmental context. The concepts of place, identity and meaning in architecture and the built environment. The impact of the quality of built environment on human mental health. Human interaction with digital environments		
<i>Prerequisites: -</i>		
<b>SABE231-DS Computing Fundamentals for Architects and Designers</b>	<b>4 Cr Hr</b>	<b>4 ECTS</b>
This course brings the students in contact with the latest developments of computational design tools. Today, many designers and researchers use digital tools and scripting languages associated with them to simulate, automate, generate processes, and get hand on parametric, or generative relationships in geometry, materials, systems structures, programmatic elements, visual and compositional components, enabling the rise of more complex solutions for an already complex problem. Solutions that are not reachable using design tools in a conventional matter. The course will investigate the syntax of an existing scripting language, as an example, programs plug-ins, and other necessary means. It will examine different case studies and focus on the way multiple programs communicate, in order to execute and automate and idea from conceptual general level to a mature detailed high level.		
<i>Prerequisites: ARCH1202, ARB0099, ENGL0099</i>		
<b>ARC211 Architectural Design: Methods and Typologies</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; the first architectural design course, it focuses on design methods and processes that require understanding spatial analysis and its relation to programming. It builds up skills toward synthesizing spatial arrangements, relationships, and typologies using experiential expression tools of geometry, order, and structure. Students will be exposed to hypothetical and real sites. Students will be required to use self-expression in order to explore their understanding of problem-solving and to demonstrate their abilities to go from abstract to contextual order.		
<i>Prerequisites: ARCH1134</i>		

<b>ARCH150 Physics for Architects</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
A basic course for several programs related to structural, electrical, and mechanical engineering systems. It covers mechanics and dynamics, electrostatics and electricity, light, geometric optics, and sound; heat transfer; climatology; gases and vapor. The course is structured based on soft-numerical teaching methods 38 where emphasis is given to morphology and behavior rather than on detailed calculations.		
<i>Prerequisites:</i>		
<b>ARCH221 Modern Foundations of Architecture</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
This course covers modern architecture and city evolution from the mid-eighteenth century, i.e., from the Enlightenment and the Industrial Revolution to the 1960s. It focuses on comparative studies with Ottoman architecture; the imperial colonized image of the Middle Eastern and North African (MENA) cities; independence from colonization and search for national identity through architecture and art. Emphasis is on the physical, social, political, and religious forces and their effects on the evolution of city form and architecture.		
<i>Prerequisites: ARCH1301, ARCH2302, ARB0099, ENGL0099</i>		
<b>ARCH261 Structural Systems I</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
The course covers behavior of building structural systems; moment distribution, forces, stability, and mechanical properties of structural materials; analysis of stress, reactions, shear and bending; structural classifications: linear, planar, volumetric; choice of structural systems: column and beam, truss and frame systems, arch and barrel vault systems; choice of construction materials: reinforced concrete and steel. The course is structured on soft-numerical teaching methods where emphasis is given to morphology and behavior rather than to detailed calculations.		
<i>Prerequisites: ARCH150, ARB0099, ENGL0099, Math0099</i>		
<b>ARCH262 Utility Planning and Design I</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
The course introduces the operation and design of building systems for electrical supply, illumination, transportation (elevators and escalators), acoustics and noise control. Systems are analyzed for their effect on building form, construction cost and operating efficiency.		
<i>Prerequisites: ARCH150, ARB0099, ENGL0099</i>		
<b>ARCH323 Contemporary Architecture</b>	<b>2 Cr Hr</b>	<b>3 ECTS</b>
This course introduces architecture today: current trends and experimental studios as Post-Modernity, Deconstruction, Phenomenology, Figuration, Grotesque, Un-Volumetric, Sustainability, coming back to the city, and conservation movement as notions of cultural change where architecture exceeds design. It presents contemporary schools of thoughts, criticism, and experimentation in architecture while emphasizing the physical, socio-political, and cultural forces and their impact on the evolution of architecture and city form.		
<i>Prerequisites: ARCH221</i>		
<b>ARCH341 Landscape Architecture</b>	<b>3 Cr Hr</b>	<b>5 ECTS</b>
A project-based course; it focuses on site analysis (topographic and climatic), treatment of land surfaces and levels, planting, water, lighting outdoor spaces, and external furniture. It emphasizes types of local and regional vegetation and criteria for their choice as well as the development of landscape design in Far Eastern, European and Islamic cultures. The focus is also on client needs and interior/exterior spatial and visual relationships. Projects should include site inventory, research, and analysis; program development; concept alternatives; master planning; and details design using a combination of computer, technical, and freehand presentation techniques.		
<i>Prerequisites: ARC211</i>		

<b>ARCH362-DS Utility Planning and Design II</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>The course introduces the operation and design of building systems for climate control, water and drainage, and life safety. It also highlights the design of heating, ventilating, and air conditioning (HVAC) systems for buildings. Systems are analyzed for their effect on building form, construction cost and operating efficiency.</p>		
<i>Prerequisites: ARCH262</i>		
<b>AC323 Heritage Conservation and Management</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>This course aims to introduce students to heritage conservation and management, with emphasis on restoration, rehabilitation and adaptive use of heritage buildings and sites. Students are introduced to the theory and history of preservation movement at the international and national levels. The course covers survey techniques for documentation of buildings and sites: short-listing, assessment and categorization of monumental buildings; preparation of documents and technical reports on conventional structural systems; preparation of case studies and critical analyses of the evaluation of selected local and regional examples of documentation and conservation; and the preparation of management plans.</p>		
<i>Prerequisites: ARCH1301</i>		
<b>ARCH354 Project Management and Site Organization I</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
<p>The course concerns the basic concepts of professional practice in architecture. It also concerns the planning and operation of construction projects by the architect, in addition to the coordination and control of personnel, materials and machines, scheduling, estimation, pricing and analysis, purchasing cost control, and other topics. The influence of construction procedures on design processes, the common and civil laws as applied to engineering contracts.</p>		
<i>Prerequisites: ARC211</i>		
<b>ARCH4501 Contracts, Specifications, and Quantity Surveying</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>This course concerns the preparation of feasibility studies and tender documents for architectural projects; specification writing; preparation of bills of quantities; measurement systems, cost estimating; and legal and management issues.</p>		
<i>Prerequisites: ARCH354</i>		
<b>ARCH1201 Architectural Rendering and Presentation Techniques</b>	<b>2 Cr Hr</b>	<b>3 ECTS</b>
<p>Rendering and presentation techniques concern both the art of mastering the available means of persuasion and the study of how oral, written, and visual communication projects the intentions of individuals and groups, makes meanings, and affects audiences. The purpose of this course therefore is two-fold: to help students become more effective communicators by learning the various presentational situations and techniques; and to help them understand how various forms of communication work by learning some of the strategies of presentation techniques analysis. This course focuses on aspects related to architecture and built environment.</p>		
<i>Prerequisites: ARCH1131, DES1200</i>		
<b>ARCH1301 Comparative History of Architecture</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>This course presents architectural roots, contexts and settlement forms from the prehistoric beginnings to Middle Eastern and North African civilizations of the Nile Valley, Mesopotamia, Phoenicia, and Crete, and to the Classical civilizations of Greece and Rome, It also deals with Byzantine and Early Christian architecture; evolution of Western architecture and art: Romanesque, Gothic, Renaissance, the Classic Revival in Central Europe; Students gain an appreciation of these cultures and an understanding of their historic, socio-economic, political, religious, and scientific effects on the evolution of arts, architecture, and city form.</p>		
<i>Prerequisites:</i>		

<b>ARCH4904 International Internship</b>	<b>12 Cr Hr</b>	<b>30 ECTS</b>
<p>This course is oriented toward partnerships and cooperation programs between the University and professional firms, studios, and agencies in Germany. Students will attend a six-month internship program in Germany to align their educational outcomes with the requirements of skill sets and professions in Jordan and the region.</p>		
<i>Prerequisites: Dept. Approval</i>		
<b>ARCH3101 Parametric Architecture</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it builds on the skills achieved in earlier computer visualization courses and will cover the advanced techniques of Parametric modeling and generative design including animating with controllers, expressions, multiple modifiers, cameras, and character studio. Facial animation, compositing, and editing with video post-special effects are also to be covered. Student exploits advanced and customizable features of the CAAD software packages to build an efficient, integrated, and customized digital environment. The course explores in more detail several advanced concepts aiming at increasing drawing efficiency, including linking with external drawings and documents, creating, editing, and maintaining libraries of drawing components, and creating dimension styles and viewpoints.</p>		
<i>Prerequisites: ARC2102 OR IARC2102</i>		
<b>ARCH1202-DS Computer Visualizations</b>	<b>3 Cr Hr</b>	<b>5 ECTS</b>
<p>This course provides students with hands-on experience using software packages in architectural media, graphics and representation. It teaches students to use computer applications in producing two and three-dimensional drawings, presentation techniques for producing rendered, modeled and visualized architectural drawings.</p>		
<i>Prerequisites: ARCH1131, ARB0099, ENGL0099</i>		

### 3. Compulsory Requirements Courses (Architecture Track)

<b>ARCH2501 Building Construction Material and Processes I</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
The course presents building technologies; structural logic and behavior; choice of building system: conventional load-bearing walls, and skeletal and composite systems; the construction process: site preparation, excavations, foundations, walls (masonry, brickwork, and concrete), columns, beams, floor structures, slabs, roofs, stairs, openings, expansion and settlement joints, thermal insulation and damp proofing.		
<i>Prerequisites: ARCH1131, ARB0099, ENGL0099, MATH0099</i>		
<b>ARCH2502 Building Construction Materials and Processes II</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
The course is a study of building finishing materials: tiling, flooring, carpet construction and quality, plastering, wood paneling, metal grills, partitions, paints, wall and ceiling materials, and other components such as moldings, door hardware, and door materials, as well as lighting fixtures, air conditioning outlets, and chimneys.		
<i>Prerequisites: ARCH2501</i>		
<b>ARC2102 Architectural Design</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; concerns the design of (residential buildings, educational buildings, or commercial buildings) as an expression of authentic style, while reflecting individual expressions and understanding functional requirements, spatial enclosures and exploration of movements and circulation. Emphases will be made on basic contextual behavioral, social, historical, cultural, economic, and environmental dimensions. Topics that may be covered include detached and semi-detached houses, apartment blocks, condominiums, etc.		
<i>Prerequisites: ARC211</i>		
<b>ARCH3507 Digital Surveying of Built Environment</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
The course presents surveying's principles and techniques: measurement of distances, triangulation, taping errors, corrections, differential and cross-sectional leveling, compass use, measuring heights, elevations, computing angles (amplitude, azimuth), construction and topographic surveys, using traditional and advanced techniques. It aims at introducing latest advanced tools and technologies in surveying works at different scales of the built environment.		
<i>Prerequisites: ARCH1202</i>		
<b>ARCH361 Structural Systems II</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
The course concerns the basic principles of structural design, with particular emphasis on the design of reinforced concrete structures and steel. The course aims to provide the student with the essential knowledge of structural systems behavior, choice of structural systems, and choice of construction materials. The course is structured on soft-numerical teaching methods where emphases are given to morphology and behavior rather than on detailed calculations.		
<i>Prerequisites: ARCH261</i>		
<b>ARC346 Urban Studies</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
The course provides an overview to urban studies from a theoretical as well as from a technical perspective; infrastructure networks, facilities, land use, traffic networks, greeneries, and urban indicators. Students are expected to formulate proposals for urban growth. Impacts are expected to define spatial arrangements, structural types and use, densities and distributions, zoning and planning, development and adaptation as well as transportation and expansion.		
<i>Prerequisites: ARC211</i>		

<b>ARC 541 Urban Design</b>	<b>5Cr Hr</b>	<b>10 ECTS</b>
<p>This is a project-oriented course supported by theoretical lectures; it covers presents principles of urban design, urban regeneration, urban infill and urban development. The course deals with history and principles of urban design as well as evolution of urban space and the city as a comprehensive, functional, organic unit responding to social, political, economic and demographic forces of growing societies. Students explore methods of visual analysis and understanding of the identity and image of urban space. The course focuses on socio-economic influence on the morphology and typology of the city.</p>		
<i>Prerequisites: ARC346</i>		
<b>ARCH591 Graduation Project I (Arch.)</b>	<b>1Cr Hr</b>	<b>10 ECTS</b>
<p>The course is oriented towards systematic analysis of the graduation project dealing with nature of project, functional and spatial relationships, location and setting, physical and human environments, use of case studies, and provision of synthesis and alternative concepts as design solutions. The outcome will be presented in both written report and visual presentations.</p>		
<i>Prerequisites: Dept. Approval</i>		
<b>ARCH592 Graduation Project II (Arch.)</b>	<b>6Cr Hr</b>	<b>20 ECTS</b>
<p>A project-based course continuation of ARCH 591. It deals with thesis preparation and research outcomes and synthesis, it proceeds to develop preliminary architectural design concepts, assesses alternative design approaches, development of design through systematic process of evaluation of spatial, functional, social, structural, environmental, and aesthetic aspects, and, finally, presents the complete design project. This includes the preparation of a full set of working design drawings.</p>		
<i>Prerequisites: ARCH591, ARC541</i>		

## 4. Compulsory Requirements Courses (Interior Architecture Track)

<b>ARCH2505 Interior Construction Works I</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
The course is a study of interior construction materials and processes: nature, properties, characteristics, and capabilities, choice of interior construction materials.		
<i>Prerequisites: ARCH1131, ARB0099, ENGL0099, MATH0099</i>		
<b>ARCH2506 Interior Construction Works II</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
The course is a study of interior construction materials and processes: nature, properties, characteristics, and capabilities, choice of interior construction materials dealing with advanced systems and products.		
<i>Prerequisites: ARC2505</i>		
<b>IARC2101 Interior Architectural Design</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; concerns the interior design of (Space Planning for Temporary Uses, Retail Design Studio, or Shopfront and Display Design) as an expression of authentic style, while reflecting individual expressions and understanding functional requirements, spatial enclosures and exploration of movements and circulation. Emphases will be made on basic contextual behavioral, social, historical, cultural, economic, and environmental dimensions. Topics that may be covered include detached and semi-detached houses, apartment blocks, condominiums, etc.		
<i>Prerequisites: ARC211, ARB0099, ENGL0099, MATH0099</i>		
<b>ARCH315 Furniture Design</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
A project-based course; it introduces specific furniture and product design components, materials, and fittings. The course is directed towards making students able to draw, develop, and build on small scale. It draws upon historical lineage by identifying the historical trajectories relevant to furniture and product design developments through predominant civilizations and their contribution, tracing the dominant furniture paradigms and historical shifts that have occurred from prehistory up to the 21st century. Specific emphasis is placed on theoretical, ideological, and technical developments that impacted contemporary furniture.		
<i>Prerequisites: ARC211</i>		
<b>ARCH363 Lighting Design</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
The course introduces lighting design for interior environments. Students explore human visual perception, properties of natural and artificial light, lighting devices and controls, energy issues, and visual communication of lighting designs including applications to specific design problems.		
<i>Prerequisites: IARC2101</i>		
<b>IARC3507 Materials and Space</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
This course focuses on finishing materials used in different spaces. It covers materials characteristics, properties, colors, etc. Students will research and experiment psychology and physiology of color and light and its effect on space. The course will focus on color in residential units and its contrast as well as its aesthetics in interior spaces.		
<i>Prerequisites: ARC211</i>		
<b>ARC441 Adaptive Re-Use of Buildings and Sites</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; it concerns the creating new uses for heritage and contemporary buildings and sites that are no longer suitable for the purpose for which they were originally intended to, with consideration of the entire life cycle of the building and its components in regard to economics, environmental impact, and performance. It also deals with methods of analysis of heritage buildings and sites in relation to cultural aspects, socio-economic impacts as well as market-oriented trends. The course reviews the urban planning and design concepts and trends. It touches on psychological, behavioral, social, and cultural inputs and the perception of place identity, context, memory and meaning. Techniques and processes of design solutions and presentations should reflect the individuality of the student.		
<i>Prerequisites: IARC3507</i>		

<b>ARCH593 Graduation Project I (Int)</b>	<b>1 Cr Hr</b>	<b>10 ECTS</b>
<p>The course is oriented towards systematic analysis of the graduation project dealing with nature of project, functional and spatial relationships, location and setting, physical and human environments, use of case studies, and provision of synthesis and alternative concepts as design solutions. The outcome will be presented in both written report and visual presentation.</p>		
<i>Prerequisites: Dept. Approval</i>		
<b>ARCH594 Graduation Project II (Int)</b>	<b>6 Cr Hr</b>	<b>20 ECTS</b>
<p>A project-based course continuation of ARCH 593. It deals with thesis preparation and research outcomes and synthesis, it proceeds to develop preliminary architectural design concepts, assesses alternative design approaches, development of design through systematic process of evaluation of spatial, functional, social, structural, environmental, and aesthetic aspects, and, finally, presents the complete design project. This includes the preparation of a full set of working design drawings.</p>		
<i>Prerequisites: ARCH593, ARC441</i>		

## 5. Elective Requirements (Architecture Track /Project)

<b>ARC311 High-Rise Buildings Design and Planning</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it introduces the complex nature of designing and planning high-rise buildings. Emphasis will be made on the complexity of the technical and engineering systems, utility planning design, parking, fire-fighting and vertical circulation codes, impacts on infrastructural networks, planning regulations, image and skyline, and the role, status, and impressions generated from such structures. Communication of design concepts and development will require advanced media and modes of presentations especially those of computer-generated drawings and models.</p>		
<i>Prerequisites: ARC2102</i>		
<b>ARC312 Design of Large Span Buildings</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it introduces the design process for large-span buildings of specialized functions, choice of appropriate structural systems such as, suspension structures, geodesic domes, folded plates, space frames, single and multi-layer systems; shells; folded plates; pneumatic systems. Topics that may be covered include indoor sport facilities, transportation terminals, industrial facilities, parking structures, etc. Communication of design concepts and development will require media and modes of presentations especially those of computer-generated drawings and models.</p>		
<i>Prerequisites: ARC2102</i>		
<b>ARC313 Design of Cultural and Civic Buildings</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; concerns the design of cultural and civic buildings, with emphasis on the contextual dimensions the message that such buildings convey, while considering the spatial and formal qualities, and the structural, functional, and environmental aspects of the design process. Topics that may be covered include theatres, cinema houses, civic centers, libraries, museums and galleries, institutional buildings, religious buildings, etc. Techniques and processes of design solutions and presentations should reflect the individuality of the student.</p>		
<i>Prerequisites: ARC2102</i>		
<b>ARC343 Infill Architecture</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it concerns the ongoing change of heritage areas and the new projects that are added either as new infill buildings in old settings or new additions on old buildings. Students will be introduced to the various approaches of designing new buildings in old settings so that they are sympathetic to their context. It also deals with methods of analysis of old settings in relation to cultural aspects, socio-economic impacts as well as market-oriented trends. The course touches on psychological, behavioral, social, and cultural inputs and the perception of place identity, context, memory and meaning. Techniques and processes of design solutions and presentations should reflect the individuality of the student.</p>		
<i>Prerequisites: ARC2102</i>		
<b>ARC371 Design of Sustainable Buildings</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; concerns the design of sustainable buildings through the understanding of the physical environment with a focus on climate: the atmosphere and its related phenomena, e.g., the greenhouse effect, air pollution and acid rains; energy sources (renewable and non-renewable); environmental controls at the levels of the building, neighborhood, city and region; natural and mechanical environmental controls; sustainable ecological design: open and closed systems; the development of "hi-tech" and "eco-tech" and their introduction into architectural expression; and studies of model cases.</p>		
<i>Prerequisites: ARC2102</i>		

<b>ARC411 Healthcare Facilities Planning and Design</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; concerns the design of healthcare facility buildings through a comprehensive understanding of the complex nature of the functional, technical, and structural requirements, while considering the spatial and formal qualities as well as the message that such facilities convey. Topics that may be covered include hospitals, long-term care facilities, mental health facilities, ambulatory surgery centres, rehabilitation centres, fertility and genetics centres, and nursing homes for the elderly.		
<i>Prerequisites: ARC2102</i>		
<b>ARC412 Tourist Facilities Design</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; concerns the design of tourist facility buildings through understanding the complex nature of the functional, technical, and structural requirements, while considering the spatial and formal qualities as well as the message that such facilities convey. Topics that may be covered include facilities for eco-tourism, religious tourism, and treatment tourism, as well as hotels, resorts, visitor centers, restaurants, club houses, etc.		
<i>Prerequisites: ARC2102</i>		
<b>ARC413 Design of Mixed-Use Buildings</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; it introduces the complex nature of designing and planning mixed-use buildings. Emphasis will be made on the complexity of the technical and engineering systems, utility planning design, parking, fire-fighting and vertical circulation codes, impacts on infrastructural networks, planning regulations, image, and the role, status, and impressions generated from such structures. Communication of design concepts and development will require media and modes of presentations especially those of computer-generated drawings and models.		
<i>Prerequisites: ARC2102</i>		
<b>ARC414 Advanced Architectural Design Project</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; it provides advanced design skills to meet the challenges of complex architectural projects. An integrated single in-depth design project will be introduced in order to gain developed and focused skills in analysis, programming, concept making, specification consideration and design development, while focusing on the integration of building systems, while providing architectural designs that utilize psychological approaches in understanding the impact of spatial meaning and place making. Communication of design concepts and development will require advanced media and modes of presentations especially those of computer-generated drawings and models.		
<i>Prerequisites: BSC001</i>		
<b>ARC441 Adaptive Re-Use of Buildings and Sites</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; it concerns the creating new uses for heritage and contemporary buildings and sites that are no longer suitable for the purpose for which they were originally intended to, with consideration of the entire life cycle of the building and its components in regard to economics, environmental impact, and performance. It also deals with methods of analysis of heritage buildings and sites in relation to cultural aspects, socio-economic impacts as well as market-oriented trends. The course reviews the urban planning and design concepts and trends. It touches on psychological, behavioral, social, and cultural inputs and the perception of place identity, context, memory and meaning. Techniques and processes of design solutions and presentations should reflect the individuality of the student.		
<i>Prerequisites: ARC2102</i>		

## 6. Elective Requirements (Interior Architecture Track /Project)

<b>IARC311 Domestic Environments Design Studio</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; it focuses on domestic environments, the problem-solving discipline of interior architectural design process and its application to single and multi-family dwellings. Develops concepts to achieve design goals and apply theoretical knowledge and technical skills to design solutions. Students work on a variety of professionally relevant projects. The course will introduce the importance of client contact and interviewing, program development, and design development. Communication of design concepts will require variety of media and modes of presentations.		
<i>Prerequisites: IARC2102</i>		
<b>IARC312 Learning Environments Design Studio</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; it focuses on learning environments, the problem-solving discipline of the interior architectural design process and its application to formal (schools) and informal (interpretive venues) learning settings. Develop concepts to achieve design goals and apply theoretical knowledge and technical skills to design solutions. Students work on a variety of professionally relevant projects. Communication of design concepts and development will require developed skills using different media and modes of presentations.		
<i>Prerequisites: IARC2102</i>		
<b>IARC313 Workplace Design Studio</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; it focuses on workplace settings, the problem-solving discipline of the interior architectural design process and its application to the many places people work. Develops concepts to achieve design goals and apply theoretical knowledge and technical skills to design solutions. Students work on a variety of professionally relevant. Communication of design concepts and development will require developed skills using different media and modes of presentations.		
<i>Prerequisites: IARC2102</i>		
<b>IARC314 Cultural and Civic Environments Design Studio,</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; it is based on practical application of interior architectural design process using various cultural and civic environments as cases to examine programming and code requirements, while focusing on human comfort. Projects will emphasize the understanding and incorporation of different interior design entities like lighting, colour, materials, use of technology, and structure. Projects will cover the various cultural and civic typologies such as theatres, libraries, religious buildings, civic centres, etc. Communication of design concepts and development will require developed skills using different media and modes of presentations.		
<i>Prerequisites: IARC2102</i>		
<b>IARC315 Theatre Set Design</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
A project-based course; as set designers, students are to create design ideas for the overall visual look of theatres. Key tasks involve studying scripts and discussing ideas with the director, communicating ideas about costume, make-up, props and lighting designers, overcoming any logistical problems, such as lighting or complex scene changes, researching the right historical, contemporary or futuristic details for production, creating effective designs within the available budget, sketching design ideas to produce a 'storyboard', showing what the sets will look like scene by scene, building and photographing scale models, estimating costs and preparing a production schedule, overseeing set building and decoration, and making any adjustments needed during rehearsals.		
<i>Prerequisites: IARC2102</i>		

<b>IARC317 Core and Shell Design</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; where the core and shell of a building are defined while the students will design the infills (what goes inside the core and shell). The core and shell elements are typically long-leaded items. The CORE areas include the building structures (beams, columns and slabs), vertical circulation systems (staircases, ramps, and elevators), and the electromechanical ducting system. The SHELL refers to the building facade (insulated exterior walls, exterior glazing, and roofs). Projects include green building measurements in core and shell developments, core and shell renovation projects, remodeling and face-lifting of existing buildings, etc. Communication of design concepts and development will require developed skills using different media and modes of presentations.</p>		
<i>Prerequisites: IARC2102</i>		
<b>IARC318 Site-Specific Furniture Design</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; through a series of studio work, lectures, presentations, assignments and fieldtrips, students examine the role of furniture within the context of its surroundings, its intended function, and its relationship to human needs and the environment. Students are to apply the gained knowledge along with appropriate tools and technology to develop and implement site/building specific furniture. Communication of design concepts and development will require developed skills using different media and modes of presentations.</p>		
<i>Prerequisites: IARC210</i>		
<b>IARC371 Sustainable Environments Design Studio</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it examines commercial and residential interior spaces where students will create sustainable and healthy environments to live in. The course reviews case studies representing best practices in sustainable design of interiors for discussion and analysis, evaluating project success according to sustainable theories, application of LEED standards, and life-cycle assessments. Communication of design concepts and development will require developed skills using different media and modes of presentations.</p>		
<i>Prerequisites: IARC2102</i>		
<b>IARC411 Healthcare Design Studio</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it focuses on healthcare spaces, the problem-solving discipline of the interior architectural design process and its application to hospitals, clinics, assisted living communities, and related healthcare facilities. Develops concepts to achieve design goals and apply theoretical knowledge and technical skills to design solutions. Students work on a variety of professionally relevant projects. Communication of design concepts and development will require developed skills using different media and modes of presentations.</p>		
<i>Prerequisites: IARC2102</i>		
<b>IARC412 Hospitality Design Studio</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it focuses on hospitality spaces, the problem-solving discipline of the interior architectural design process, and its application to hotels, resorts, restaurants, entertainment, and related interior spaces. Develop concepts to achieve design goals and apply theoretical knowledge and technical skills to design solutions. Students work on a variety of professionally relevant projects. Communication of design concepts and development will require developed skills using different media and modes of presentations.</p>		
<i>Prerequisites: IARC2102</i>		
<b>IARC413 Museum and Exhibition Design</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it will introduce an in-depth process of designing museums and exhibitions. The course will expose students to different staff positions in such building typology (museums) including curators, designers, educators, developers, conservators, preparators, collections managers, administrators and others. Communication of design concepts and development will require developed skills using different media and modes of presentations.</p>		
<i>Prerequisites: IARC2102</i>		

<b>IARC414 Advanced Interior Architecture Project</b>	<b>5 Cr Hr</b>	<b>10 ECTS</b>
<p>A project-based course; it provides advanced design skills to meet the challenges of complex interior architecture projects. An integrated single in-depth design project will be introduced in order to gain developed and focused skills in analysis, programming, concept making, specification consideration and design development. The course provides students with the freedom to select their design methods as a means of developing student individuality. Projects are oriented towards a more complex nature both spatially and detail-wise. Advanced techniques and processes of design solutions and presentations are required.</p>		
<p><i>Prerequisites: BSC001</i></p>		

## 7. Elective Requirements (Architecture - Interior Architecture Track / Technical)

<b>ARCH401 Special Topics in Architecture I</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
This course allows specialized or in-depth study of a subject supplementing architecture. Student interest and instructor expertise help determine the topic, to be announced in the classroom.		
<i>Prerequisites: BSC001</i>		
<b>ARCH402 Special Topics in Interior Architecture I</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
This course allows specialized or in-depth study of a subject supplementing interior architecture. Student interest and instructor expertise help determine the topic, to be announced in the classroom.		
<i>Prerequisites: BSC001</i>		
<b>ARCH403 Special Topics in Architecture II</b>	<b>2 Cr Hr</b>	<b>6 ECTS</b>
This course allows specialized or in-depth study of a subject supplementing architecture. Student interest and instructor expertise help determine the topic, to be announced in the classroom.		
<i>Prerequisites: BSC001</i>		
<b>ARCH404 Special Topics in Interior Architecture II</b>	<b>2 Cr Hr</b>	<b>6 ECTS</b>
This course allows specialized or in-depth study of a subject supplementing interior architecture. Student interest and instructor expertise help determine the topic, to be announced in the classroom.		
<i>Prerequisites: BSC001</i>		
<b>ARCH405 Special Topics in Architecture III</b>	<b>1 Cr Hr</b>	<b>2 ECTS</b>
This course allows specialized or in-depth study of a subject supplementing architecture. Student interest and instructor expertise help determine the topic, to be announced in the classroom.		
<i>Prerequisites: ARC2102, BSC001</i>		
<b>ARCH406 Special Topics in Interior Architecture III</b>	<b>1 Cr Hr</b>	<b>2 ECTS</b>
This course allows specialized or in-depth study of a subject supplementing interior architecture. Student interest and instructor expertise help determine the topic, to be announced in the classroom.		
<i>Prerequisites: BSC001</i>		
<b>ARCH423 Contemporary Issues in Architectural Design</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
In this course, students explore a variety of critical, aesthetic and practical issues relevant to the current practice of architectural design. The course employs readings, lectures and discussions to stimulate and refine critical thinking and practical design problem-solving abilities. Collaborative students conduct research as groups on current issues of interest and are responsible for both analysis and presentation.		
<i>Prerequisites: BSC001</i>		
<b>ARCH425 Regional and Vernacular Architecture</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
This course examines the history, characteristics and meaning of regional and vernacular architecture from a global perspective with special emphasis on Bilad Al-Sham and Jordan. The primary focus of the course will be on domestic architecture and settlement forms. It will also include some vernacular religious and ceremonial structures. Through this course students will acquire an appreciation of the range of building traditions found around the world and explore the connection between architectural forms and the societies that created them.		
<i>Prerequisites: BSC001</i>		

<b>ARCH426 Environmental Psychology and Sociology</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>The course emphasizes environmental psychology and sociology in architecture and design. It specifically addresses meaning of perception, Gestalt theory, principles of perception in visual arts, and criticism schools in architecture and arts. The course touches on psychological, behavioral, social, and cultural inputs using comparative analysis. It provides understanding of the different spatial typologies, order, relationships, and arrangement in relation to place making and preferences.</p>		
<i>Prerequisites: BSC001</i>		
<b>ARCH432 Geographic Information Systems</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>This course will cover methods of constructing a Geographical Information System (GIS) used by utility and governmental agencies. It is designed to develop skills necessary to prepare intelligent maps with spatial data bases for parcel mapping, planning, zoning, facility mapping, creating buffer zones, slope analysis, and neighborhood and zone analysis, using CAD map software packages.</p>		
<i>Prerequisites: BSC001</i>		
<b>ARC341 Housing</b>	<b>2 Cr Hr</b>	<b>4 ECTS</b>
<p>This course reviews the theories of housing planning with emphasis on creating better housing environments and more efficient policies, programming, planning, and designing for housing. The case analysis includes formal and informal settlements. Approaches include post-occupancy evaluation for technical, spatial, socio-economic, socio-behavioral, and cultural analysis.</p>		
<i>Prerequisites: BSC001</i>		
<b>ARCH442 Human Response to the Built Environment</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>This course introduces the multidimensional understanding of the built environment at the levels of urban, architectural, landscape, building systems and material, design process and implementation in its relation to people. It provides understanding to the complex nature of place forming by synthesizing its basic ingredients that relate to perception of place identity and meaning, reflecting people needs, uses, context, and memory. The course touches on psychological, behavioral, social, and cultural inputs using comparative analysis. It provides an understanding of the different spatial typologies, order, relationships, and arrangement in relation to place making and preferences. Issues of gender, health, age, and other are examined through the built environment.</p>		
<i>Prerequisites: BSC001</i>		
<b>ARCH451 Design and Build</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>This course presents an option for students who want to design and build from their own ideas of architecture. The course starts as a three-week design project of the students' choosing, with directions from the professor with regard to scope and feasibility of construction. During this first phase, students design and produce detailed drawings of a conceived piece of architecture that they later build together. For the remaining seven weeks, the students engage in material selection and acquisition, and construction of their design. They team out to learn the construction process of buildings.</p>		
<i>Prerequisites: BSC001</i>		
<b>ARCH453 Building and Site Documentation</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>This course aims to provide the students with the skills and abilities to document buildings and sites including the physical documentation as well as the narrative stories that reflect the history, significance and meaning of a specific building or site. It is a field-project oriented using conventional and advanced technologies, different types of thematic surveys, inventories, fieldwork, and research.</p>		
<i>Prerequisites: BSC001</i>		

<b>ARCH457 Advanced Construction Systems</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>This course presents advanced building construction systems: suspension structures, geodesic domes, folded plates, space frames, single and multi-layer systems; shells; folded plates; pneumatic systems; choice of structural systems and construction materials; assessment of their potentials and limitations; and basic principles of structural design.</p>		
<i>Prerequisites: BSC001</i>		
<b>ARCH554 Project Management and Site Organization II</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>The course focuses on the project management processes, organizational structure, construction project participants, organizing and leading the construction project, project delivery methods, project chronology, construction services during design, bidding and procurement, construction closeout, project planning and scheduling, project cost estimate, controlling project time, cost and quality, job site administration, principles of programming office and field works; linear planning; network planning; critical path in supervision and follow-up; pinpointing and controlling critical points; revising and updating the network through checking operations, time schedules, cost, management of workers and working systems, contractual documents, general and special conditions, and safety issues on the construction sites .</p>		
<i>Prerequisites: BSC001</i>		
<b>ARCH571 Architectural Environmental Systems</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>The course provides an analysis of the physical environment with a focus on climate: the atmosphere and its related phenomena, e.g., the greenhouse effect, air pollution and acid rains; energy sources (renewable and non-renewable); environmental controls at the levels of the building, neighborhood, city and region; natural and mechanical environmental controls; sustainable ecological design: open and closed systems; the development of “hi-tech” and “eco-tech” and their introduction into architectural expression; and studies of model cases.</p>		
<i>Prerequisites: BSC001</i>		
<b>IARC316 Principles of Interior Design</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>A project-based course; it introduces the fundamental elements and principles of interior design. Students work with concepts and methods for defining and organizing space and form in the interior environment. Communication of design concepts will require variety of media and modes of presentations.</p>		
<i>Prerequisites: BSC001</i>		
<b>ARCH454 Interior Textiles, Accessories, and Resources</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>The course introduces properties and applications for textiles, accessories and various other resources that can be selected, specified, installed, and maintained in an interior environment. Topics include soft and hard materials for flooring, walls, ceilings, and upholstery, as well as equipment, applications, millwork, and cabinetry. Product sources and specifications are covered along with how to measure, correctly install and maintain the various materials.</p>		
<i>Prerequisites: BSC001</i>		

## 8. Course Offered by Other Departments

DES101: Arts Appreciation	3 Cr Hr	3 ECTS
An introductory course designed for non-art students to give them the basic knowledge of arts and simple approaches to the understanding of the history, development, elements, criticism, esthetics and materials of different art forms (visual, aural and performing arts). A comparative approach between the different arts is given to enhance the students' global understanding of arts and to give them the ability to look at art works and form their own opinions. The course is combined with examples of audio and visual arts.		
<i>DES101: Arts Appreciation</i>		

## 9. Courses offered by Other Schools

<b>ARB0099 Elementary Arabic</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>This course aims to develop student's ability to read, comprehend, literary analyze, grammatically analyze, linguistically analyze, poetically analyze, and rhetorically analyze texts properly. The course also includes a selection of Arabic literature in poetry and prose representing different literary ages, in addition to several common forms of writing such as scientific article, news article, and others.</p>		
<i>Prerequisites: Placement test</i>		
<b>ARB100 Arabic</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>This course aims to improve the student's competence in the various linguistic skills in terms of reading, comprehension, and taste. This is achieved through the study of selected texts with many implications that raise issues in spelling, grammar, composition, meaning, and inference, and the use of an old and modern thesaurus.</p>		
<i>Prerequisites: ARB0099</i>		
<b>MILS100: Military Science</b>	<b>3 Cr Hr</b>	<b>2 ECTS</b>
<p>History of the Jordanian Arab Army. United Nations Peace Keeping Forces. Preparation of the nation for defense and liberation. History of the Hashemite Kingdom of Jordan and its development.</p>		
<i>Prerequisites:</i>		
<b>ENGL0098 Elementary English</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>Students will focus on English at an elementary level through the receptive skills of reading and listening and the productive skills of writing and speaking. English III is aimed at students who have achieved a grade of between 0 and 60 on the English Placement Test. This course is zero credit hours. This course enables students to contribute their own knowledge or experience in speaking activities, and use the language correctly. The exposure to a wide variety of listening material with a variety of accents, including some non-native speakers of English improves their level. English III integrates the focus on individual sounds of word and sentence stress where students are encouraged to copy the rhythm of English. Pronunciation is also integrated into Grammar and Vocabulary activities.</p>		
<i>Prerequisites: Placement test</i>		
<b>ENGL0099 Intermediate English</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>Students will focus on English at an intermediate level through the receptive skills of reading and listening and the productive skills of writing and speaking. English IV is aimed at students who have successfully passed English III or achieved a grade of between 61-80 on the English Placement Test. This course is zero credit hours. Attendance: Students are required to attend regularly according to the regulations of GJU and should provide the instructor with official excuses in case they are absent for a long time. Participation and homework: Students are required to participate in the group discussion in class. Interaction is necessary as well as oral presentations will be given to measure how fluent students are and to improve their skill of speaking. Medium of communication: GJU email, face to face (on campus) and during office hours. Teaching method: Explaining, discussing and doing the exercises given to students.</p>		
<i>Prerequisites: ENGL0098</i>		

<b>ENGL1001 Upper-Intermediate English</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>Education is the ability to listen to almost anything without losing your temper or your self-confidence.” Robert Frost (1874 - 1963) English V is aimed at students who have achieved a passing grade in English IV or a grade between 81 and above on the English Placement Test. English V is equal to three credit hours. Students will focus on English at an upper intermediate level. Students will analyze and produce essays with an emphasis on argumentation and persuasion working both independently and cooperatively to gather, evaluate, and synthesize necessary information. Class activities include interactive lectures, small group and class discussions, informal debates, peer feedback, individual presentations, focused listening exercises and focused viewing exercises as well as assorted reading, writing, and grammar assignments. There will be some poetry analysis together with reading and understanding a short story and a drama using basic literary terms and concepts. Note: The process of argumentation enables us to clarify and develop our own responses to important issues, and a significant part of that process involves dialogue with both those who share our opinions and those who do not. In order to participate responsibly and effectively in meaningful dialogue, we must maintain an attitude characterized by openness, responsibility, rationality, and respect for all participants. Upon finishing this level, all students are eligible to receive an English language proficiency letter indicating their level according to the Common European Framework Reference for Languages (CEFR) varying between B1 and B2 according to the grade they get upon finishing this level.</p>		
<i>Prerequisites: ENGL0099</i>		
<b>ENGL1002 Advanced English</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>English VI, is the last of the English levels at the German Jordanian University to arm graduates with the best command of the English language in its varied aspects: Reading, Writing, Speaking, Listening and Understanding. It is aimed at students who successfully pass English V and it is three credit hours. This level focuses on a higher level of enhancement of their language. Students can address any audience, through delivering a persuasive speech, making an informative presentation, or analyzing controversial News through News Analysis. The students' Thesis Statements are backed up with: mistake-free language, persuasive logic and verified statistics, numbers and facts to convince the audience with their points of view. Other tools are enhanced involving their language, including specific terminology, tone, intonation and body language to make them acquire the best outcome. Students can also address any topic in writing. With the language skills provided in this level, GJU graduates become more equipped with outstanding abilities and get better chances in the work market, in addition to their knowledge and education in the major fields. The assessment of the students applies Bloom's Taxonomy where the learning objectives are classified according to the different domains including: learning (remembering), understanding, applying, analyzing, evaluating, the creating. Upon finishing this level, all students are eligible to receive an English language proficiency letter indicating their level according to the Common European Framework Reference for Languages (CEFR) varying between B2, C1 or C2 according to the grade they get upon finishing this level.</p>		
<i>Prerequisites: ENGL1001</i>		
<b>GERL101B1 German I B1-Track</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>Can understand and use familiar, everyday expressions and very simple sentences, which aim at the satisfaction of specific needs. Can introduce oneself, and others, and ask others questions to themselves - e.g. where they live, which people they know or what kind of things they have - and can give answers on questions of this kind. Can communicate on a basic level if those involved with him/ her in a conversation speak slowly and clearly and are willing to help.</p>		
<b>GERL102B1 German II B1-Track</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
<p>Can understand sentences and frequently used expressions if those are connected with things of immediate meaning (e.g., information to the person and to the family, buying, work, closer environment). Can communicate in simple, routine situations, with the purpose of a simple and direct exchange of information about familiar and common things. Can describe with simple means their own origin and training, direct environment and things that are in connection with direct needs.</p>		
<i>Prerequisites: GERL101B1</i>		

<b>GERL201B1 German III B1-Track</b>	<b>3 Cr Hr</b>	<b>4 ECTS</b>
Can understand the main points if no dialect is used and if it concerns familiar things about work, school, spare time etc. Can master most situations, which one encounters on journeys in a German speaking area. Can express oneself simply and coherently about familiar topics and areas of personal interest. Can report experiences and events, describe dreams, hopes and goals and give short reasons or explanations about plans and opinions.		
<i>Prerequisites: GERL102B1</i>		
<b>GERL202B1 German IV B1-Track</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
Can understand the main contents of complex texts, as well as concrete and abstract topics; even discussions between specialists in his/ her own special field. Can communicate spontaneously and fluidly a normal discussion with native speakers, without larger effort on both sides. Can express oneself clearly, in detail in a broad spectrum of topics, describe a point of view to a current question, and indicate the pro and cons of different possibilities.		
<i>Prerequisites: GERL201B1</i>		
<b>GERL301B1 German V B1-Track</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
Can understand and seize implicit meanings of a broad spectrum of demanding, longer texts. Can express oneself spontaneously and fluidly, recognizing words without having to search for words frequently. Can use the language effectively and flexibly in social and vocational life or in training and study. Can express oneself clearly, structured and detailed, to complex subjects and use appropriate different means for linkage of texts.		
<i>Prerequisites: GERL202B1</i>		
<b>GERL302B1 German VI B1-Track</b>	<b>3 Cr Hr</b>	<b>6 ECTS</b>
German VI is a strongly practice-oriented course in preparation for your German Year. The course includes the modules "Intercultural Communication", "Job Application Training" and the technical languages. In part, it includes a special support program for students who did not achieve their language goal of a full B1 certificate in German V.		
<i>Prerequisites: GERL301B1</i>		
<b>BE302: Business Entrepreneurship</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
The course focuses on critical skills necessary to develop appropriate financing strategies for new venture creation and growth. Students will use case studies and team projects in course studies. Three primary topics are covered: first, an overview of the entrepreneurial finance process and involved players; second, performing business valuations; and third, securities law with emphasis on developing term sheets and private placement memorandums. Student teams will complete a valuation and mock securities offering for an existing small to mid-size business. Financial valuations and terms sheets developed by student teams will be presented to a panel of venture capital professionals for evaluation and critique.		
<i>Prerequisites: ENGL0098</i>		
<b>IC101: Intercultural Communication</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
This course is designed to provide prospective students (whose majors have an international flavor) with tools that offer powerful possibilities for improving the communication process. We will examine the process of sending and receiving messages between people whose cultural background could lead them to interpret verbal and nonverbal signs differently. We will learn about the diversity of these cultural differences and at the same time learn how we might overcome them. Our efforts to recognize and surmount cultural differences will hopefully open up business opportunities throughout the world and maximize the contribution of all the employees in a diverse workforce.		
<i>Prerequisites: ENGL0098</i>		

<b>NE101: National Education</b>	<b>3 Cr Hr</b>	<b>2 ECTS</b>
<p>In a context of striving towards democracy like the one Jordan enjoys today, the meaning and practice of active and responsible citizenship becomes more crucial. It is often argued that democracy requires “democrats” to flourish, and become well established. Democrats are those women and men who recognize pluralism, inclusion, positive engagement, and participation as the main values that govern their interaction with the state as citizens and with each other as diverse people of different interests. In this course you will be able to understand your rights and responsibilities as Jordanian citizen expand your knowledge about the frameworks, and processes that regulates citizen-state relationships as well as the basic necessary skills for you to practice your citizenship rights in a civic manner.</p>		
<i>Prerequisites:</i>		
<b>SE301: Social Entrepreneurship and Enterprises</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>This course will serve as an introduction to the field of social entrepreneurship and social enterprises. Through lectures, field visits, analyses of relevant literature, case studies and exercises, this course will explore social entrepreneurship’s potentials, opportunities and limitations. The topics will cover Defining Social Entrepreneurship. Contextualizing Social Entrepreneurship (need, motives, forms, criteria). Role of Leadership, Creativity and Innovation. Locating SE on the profit/non-profit continuum. SE in the larger fields of development, social change, community activism. Social Enterprises (Missions, Markets, Finances). Ethical business and corporate social responsibility.</p>		
<i>Prerequisites: ENGL0098</i>		
<b>SFTS101: Soft Skills</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>This course is designed to help develop strong oral and written communication skills. The student will be given opportunities to practice writing and editing professional correspondence and technical reports. Additionally, the student will compose and deliver oral presentations. Assignments will include the use of inductive and deductive approaches to conveying a variety of messages. The course emphasis the use of software tools to prepare presentations, stress management, confidence, and sensitivity to others. It also stresses on resume writing and conducting interviews.</p>		
<i>Prerequisites: ENGL0098</i>		
<b>TW303: Technical and Workplace Writing</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>Technical and Workplace Writing course focuses on essentials; it introduces students to professional and technical writing through a straightforward structure, adding knowledge while practicing different forms and skills. Since this course is a practical one, the course offers the "how" (instructions) and the "what" (examples) with discussion topics and exercises designed to make instruction straightforward. Students are exposed to certain genres, such as web page design, summaries, proposals, user guides, and job application materials. This is why this course is designed with a student/worker in mind, who would greatly benefit from the techniques of writing presented throughout the course.</p>		
<i>Prerequisites: ENGL0099</i>		
<b>MATH0099 Pre-Math</b>	<b>3 Cr Hr</b>	<b>3 ECTS</b>
<p>Real numbers and their properties, Solutions of equations and inequalities, Functions, Domain of functions, Operations on functions, Polynomials, Zeros of polynomials, Power, Exponential, Logarithmic, and Trigonometric functions and their graphs, Applications of trigonometry, Analytic Geometry: Lines, circles and parabolas</p>		
<i>Prerequisites: Placement test</i>		
<b>MATH101 Calculus I</b>	<b>3 Cr Hr</b>	<b>5 ECTS</b>
<p>This course introduces the student to the calculus of single-valued functions. Topics include: limits, continuity, rates of change, rules for differentiating, differentials and local linear approximations, maxima and minima problems, L’Hôpital’s rule, related rates, logarithmic and implicit differentiation, inverse trigonometric and hyperbolic functions, Rolle’s theorem, the mean-value theorem, and applications of derivatives and integrals</p>		
<i>Prerequisites: MATH0099</i>		