

**School of Construction Technology and Built Environment  
Department of Architectural Engineering**

**Intermediate University Degree 1 - Technician: 76 Credit Hours**

Specialization Pathways:

- Construction (Construction Management & Architectural Technology): CAD Operator, Construction Site Foreman
- Building Engineering Systems (HVAC): CAD Operator, HVAC Systems Design, Installation, and Maintenance
- Building Engineering Systems (Electrical): CAD Operator, Electrical Systems Design, Installation, and Maintenance

**Summary:**

Classification	Credit Hours		
	Compulsory	Elective	Total
<b>University Requirements</b>	12	0	12
<b>School Requirements</b>	13	0	13
<b>HTU Department Requirements</b>	13	0	13
<b>HNC Department Requirements</b>	20-28*	4-12*	32
<b>Placement in Industry Requirements</b>	6	0	6
<b>Total =</b>	<b>64-72*</b>	<b>4-12*</b>	<b>76</b>

\* Depending on the specialization pathway

Practical 2Hours: Labs, Workshops, Studios, Seminars, Tutorials, Training, Fieldwork, Boot Camps & Excursions.

1 Practical Hour = 2-3 contact hours.

**0. English Language Prerequisites:**

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Prerequisite
10301099	Pre-Foundation English Intensive + Lab	4	8	1	Placement Test 0-29

**1. University Requirements: (12 Credit Hours)**

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Contact Hours	Prerequisite
10301100	Foundation English Pre-Intermediate Intensive + Lab	4	8	1	10	Placement Test 30-42
10301101	Soft Skills I	2	0	2	4	-
10302191	Science & Society Seminar I: Arab Contributions to Science and Arts	1	0	1	2	-
10303130	STEM Lab I	1	0	1	3	-
10303131	STEM Lab II	1	0	1	3	10303130
10101100	Workshop I	2	0	2	6	-
10101102	Workshop II	1	0	1	3	10101100
<b>Total</b>		<b>12</b>				

**3. School Requirements: (13 Credit Hours)**

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Prerequisite
10303101	Functional Math	3	3	0	-
10303100	Functional Physics	3	3	0	-
10201100	Fundamentals of Computing	4	3	1	-
10400120	Construction Workshop	1	0	1	10101112
10401111	Introduction to Construction Information	2	0	2	-
<b>Total</b>		<b>13</b>			

**4. Al-Hussein Technical University (HTU) Department Requirements (13 Credit Hours):**

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Prerequisite
10401131	Creative Thinking Studio	2	0	2	-
10400112	Construction Information (Working Designs)	4			10401111
10401211	Computer Visualizations	2	0	2	10401112
10401231	Individual Project II	4	2	2	10401132
10401270	Special Topics in Architecture	1	0	1	-
<b>Total</b>		<b>13</b>			

## 1. Higher National Certificate (HNC) Department Requirements (32 Credit Hours)

### 1.1. HNC Compulsory Requirements (20-28 Credit Hours)\*:

\* Depending on the specialization pathway:

#### 1.1.1. Compulsory Core Units (12 Credit Hours):

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Prerequisite
10401132	Individual Project I – Pearson Set	4	3	1	10401111
10401121	Construction Technology	4	3	1	10401111
10400151	Construction Practice & Management	4	3	1	10401111
<b>Total</b>		<b>12</b>			

#### 1.1.2. Compulsory Specialist Units (8-16 Credit Hours):

Students should choose to study one of the following lists depending on the specialization pathway:

##### 1) Construction Management & Architectural Technology Specialist Units - 8 Credit Hours:

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Prerequisite
10400251	Legal & Statutory Responsibilities in Construction	4	3	1	10400151
10401113	Building Information Modeling (BIM)	4	3	1	10401111
<b>Total</b>		<b>8</b>			

##### 2) Building Engineering Systems - (HVAC) Specialist Units - 16 Credit Hours:

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Prerequisite
10402101	Mathematics for Construction	4	3	1	10303101
10409241	Principles of Ventilation & Air-Conditioning Design & Installation	4	3	1	10303100
10409243	Principles of Heating Services Design & Installation	4	3	1	10303100
10409244	Scientific Principles for Building Services	4	3	1	
<b>Total</b>		<b>16</b>			

3) *Building Engineering Systems - (Electrical) Specialist Units - 16 Credit Hours:*

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Prerequisite
10409242	Principles of Electrical Design and Installation	4	3	1	10303100
10409261	Principles of Alternative Energy	4	3	1	10303100
10402101	Mathematics for Construction	4	3	1	10303101
10409244	Scientific Principles for Building Services	4	3	1	
<b>Total</b>		<b>16</b>			

**1.2. HNC Elective Requirements (4-12 Credit Hours)\*:**

\* Students should choose to study 4-12 Credit Hours from the following list depending on the specialization pathway:

4) *Construction Management and Architectural Technology - 12 Credit Hours:*

5) *Building Engineering Systems (HVAC & Electrical) - 4 Credit Hours:*

Course No.	Course Title	Cr. Hr.	Lecture	Practical	Prerequisite
10402171	Science & Materials	4	3	1	10303100
10401113	Building Information Modeling (BIM)	4	3	1	10401111
10402111	Surveying, Measuring & Setting Out	4	3	1	10401112
10400252	Tender & Procurement	4	3	1	10400151
10401221	Principles of Refurbishment	4	3	1	104011212
10409261	Principles of Alternative Energy	4	3	1	10303100
10409262	Principles of Public Health Engineering	4	3	1	-
10400253	Site Supervision & Operations	4	3	1	104001512
<b>Total Taken</b>		<b>4-12*</b>			

\* Depending on the specialization pathway

**5. Placement in Industry Requirements (6 Credit hours)**

Course No.	Course Title	Cr. Hr.	Lecture	Lab.	Prerequisite
10400990	On-Job Training	6			3 <sup>rd</sup> Year
<b>Total</b>		<b>6</b>			

**School of Construction Technology and Built Environment**

**Department of Architectural Engineering**

**Technician Certificate in Architectural Engineering**

**English Language Prerequisites:**

Depending on the results of the English language Placement Test

Course No.	Course Title	Cr. hr.	Prerequisite
10301099	Pre-Foundation English Intensive + Lab	4	Placement Test 0-29

**Study Plan Guide:**

<i>First Year - Fall Semester</i>			
Course No.	Course Title	Cr. hr.	Prerequisite
10301100	Foundation English Pre-Intermediate Intensive +Lab	4	Placement Test 30-42
OR 10301110	Foundation English Intermediate Intensive + Lab		Placement Test 43-58
10303100	Functional Physics	3	-
10303101	Functional Math	3	-
10303130	STEM Lab I	1	-
10301101	Soft Skills I	2	-
10101100	Workshop I	2	-
10401131	Creative Thinking Studio	2	-
10401111	Introduction to Construction Information	2	-
<b>Total</b>		<b>19</b>	

<i>First Year - Spring Semester</i>			
Course No.	Course Title	Cr. hr.	Prerequisite
10401121	Construction Technology	4	10401111
10401132	Individual Project I – Pearson Set	4	10401111
10400151	Construction Practice & Management	4	10401111
10401270	Special Topics in Architecture	1	-
10303131	STEM Lab II	1	10303130
10101102	Workshop II	1	10101100
10302191	Science & Society Seminar I: Arab Contributions to Science and Arts	1	-
<b>Total</b>		<b>16</b>	

<i>First Year - Summer Semester</i>			
Course No.	Course Title	Cr. hr.	Prerequisite
10400112	Construction Information (Working Designs)	4	10401111
	HNC Elective 1	4	
10201100	Fundamentals of Computing	4	-
10400120	Construction Workshop	1	10101112
<b>Total</b>		<b>13</b>	

**Construction: Construction Management & Architectural Technology:**

<i>Second Year – Fall Semester</i>			
<b>Course No.</b>	<b>Course Title</b>	<b>Cr. Hr.</b>	<b>Prerequisite</b>
10401103	Building Information Modelling	4	
10400251	Legal & Statutory Responsibilities in Construction	4	10400151
10401231	Individual Project II	4	10401132
10401211	Computer Visualizations	2	10400112
	HNC Elective 2	4	
	<b>Total</b>	<b>18</b>	

<i>Second Year – Spring Semester</i>			
<b>Course No.</b>	<b>Course Title</b>	<b>Cr. Hr.</b>	<b>Prerequisite</b>
	HNC Elective 3	4	
10400990	On-Job Training	6	2nd Year
	<b>Total</b>	<b>10</b>	

**Building Engineering Systems (HVAC):**

<i>Second Year - Fall Semester</i>			
<b>Course No.</b>	<b>Course Title</b>	<b>Cr. hr.</b>	<b>Prerequisite</b>
10409241	Principles of Ventilation & Air-conditioning Design & Installation	4	10303100
10409243	Principles of Heating Services Design & Installation	4	10303100
10401231	Individual Project II	4	10401132
10402101	Mathematics for Construction	4	10303101
10401211	Computer Visualizations	2	10400112
	<b>Total</b>	<b>18</b>	

  

<i>Second Year - Spring Semester</i>			
<b>Course No.</b>	<b>Course Title</b>	<b>Cr. hr.</b>	<b>Prerequisite</b>
10409244	Scientific Principles for Building Services	4	
10400990	On-Job Training	6	2nd Year
	<b>Total</b>	<b>10</b>	

**Building Engineering Systems (Electrical):**

<i>Second Year - Fall Semester</i>			
<b>Course No.</b>	<b>Course Title</b>	<b>Cr. hr.</b>	<b>Prerequisite</b>
10409242	Principles of Electrical Design and Installation	4	10303100
10409261	Principles of Alternative Energy	4	10303100
10401231	Individual Project II	4	10401132
10402101	Mathematics for Construction	4	10303101
10401211	Computer Visualizations	2	10400112
	<b>Total</b>	<b>18</b>	
<i>Second Year - Spring Semester</i>			
<b>Course No.</b>	<b>Course Title</b>	<b>Cr. hr.</b>	<b>Prerequisite</b>
10409244	Scientific Principles for Building Services	4	
10400990	On-Job Training	6	2nd Year
	<b>Total</b>	<b>10</b>	