

# Bachelor of Architectural Engineering

## Professional Occupations

- Architectural Engineer
- Site Architect Engineer
- Project / Construction Manager
- Quantity Surveyors
- Site Manager
- Architectural Inspector
- Sustainability Engineer

## Program Overview

Architectural Engineering combines architecture with engineering to focus on the link between systems design and construction strategies. If you are interested in building things, thinking about how things work, drawing, model design, working with your hands, working with others, then Architectural Engineering is the career for you. You will not only study architectural design, but you will also attain a technical background in structural, mechanical, electrical, plumbing design, and building services engineering. A degree in Architectural Engineering from Alfaisal University will prepare you for employment in a number of different fields in both construction and architecture.

## Competitive Edge

Consistent with the mission statements of both the University and College of Engineering, the Architectural Engineering program at Alfaisal University delivers an educational program of study that prepares its graduates to become innovative and internationally recognized leaders in industry, government, and academia. Architecture Engineering students are trained to find innovative and creative solutions for complex engineering challenges through AEC education, research, and community involvement. Our faculty hold degrees from world-renowned universities, with the majority from North America. Additionally, our faculty have a high success rate in obtaining new research projects in both new and established disciplines. Furthermore, small class sizes provide students with the opportunity for individualized instruction.

## Tracks

Optional tracks are available for students in the areas of:

- Sustainable Development
- Construction Management

Students will be able to tailor their senior-level technical electives to study new emerging technologies in these areas. More details are available on the department's website.

## Collaborators



Local Tel: 920 000 570  
Int'l Tel: +966 11 215 7777  
coe@alfaisal.edu  
twitter.com/alfaisaluniv  
www.youtube.com/user/alfaisaluniv  
http://coe.alfaisal.edu/departments/ae\_home

**Alfaisal University**  
Bachelor of Architectural Engineering | Study Plan Summary | Effective: Fall 2024

**4-Year Curriculum:** 152 Credit Hours Total

**Freshman Year - Fall Semester**

Course Code	Course-Title	CRHs
ARE 120	Drafting and Drawing	1
ARE 120 S	Drafting and Drawing Studio	2
CHM 102	Introduction to Chemistry	1
CHM 102 L	Introduction to Chemistry Lab	3
MAT101	Calculus I	3
PHU 103	Mechanics and Waves for Engineers	3
PHU 103 L	Mechanics and Waves for Engineers Lab	1
ENG 101	University Writing	3
	<b>Total</b>	<b>17</b>

**Sophomore Year - Fall Semester**

Course Code	Course-Title	CRHs
ARE 201	Architectural Design I	3
ARE 231	Building Materials and Construction Technology	3
ARE 231 L	Building Materials and Construction Technology Lab	1
ARE 232	Building Construction	3
EE 207	Foundations of Electrical Engineering	3
EE 207 L	Foundations of Electrical Engineering Lab	1
ME 203	Applied Mechanics I: Statics	3
MAT 211	Calculus III	3
	<b>Total</b>	<b>20</b>

**Junior Year - Fall Semester**

Course Code	Course-Title	CRHs
ARE 303	Interior Design	2
ARE 303 S	Interior Design Studio	1
ARE 355	Quantity Surveying	3
ARE 341	The Built Environment	3
ME 407	Heating, Ventilation, and Air-Conditioning	3
MAT 212	Linear Algebra	3
MAT 213	Differential Equations	3
ISL 101	Islamic Studies I	2
	<b>Total</b>	<b>20</b>

**Junior Year - Summer Semester**

Course Code	Course-Title	CRHs
ARE 390	Architectural Engineering Summer Internship	0
	<b>Total</b>	<b>0</b>

**Senior Year - Fall Semester**

Course Code	Course-Title	CRHs
ARE 405	Structural Analysis	3
ARE 409	Project Management and Economics	3
ARE 410	Contracts and Liabilities for Buildings and Construction	3
ARE 412	Environmental Management and Policy	3
ARE 4 __	Technical Elective	3
ARE 4 __	Technical Elective	3
ARE 491	Architectural Engineering Capstone Project I	2
	<b>Total</b>	<b>20</b>

**Freshman Year - Spring Semester**

Course Code	Course-Title	CRHs
ARE 110	Architectural History and Theories	3
SE 100	Programming for Engineers	3
SE 100 L	Programming for Engineers Lab	1
ME 201	Material Science and Engineering	3
ME 201 L	Material Science and Engineering Lab	1
MAT 112	Calculus II	3
PHU 124	Electromagnetism and Optics for Engineers	3
PHU 124 L	Electromagnetism and Optics for Engineers Lab	1
	<b>Total</b>	<b>18</b>

**Sophomore Year - Spring Semester**

Course Code	Course-Title	CRHs
ARE 202	Architectural Design II	3
ARE 220	Construction Drawing (CAD)	2
ARE 220 S	Construction Drawing (CAD) Studio	2
ARE 297	Architecture and Buildings	3
ME 206	Thermal Fluids Engineering I	3
ME 206 L	Thermal Fluids Engineering I Lab	1
ARB 101	Arabic Language and Literature I	2
ENG 222	Technical Writing	3
	<b>Total</b>	<b>19</b>

**Junior Year - Spring Semester**

Course Code	Course-Title	CRHs
ARE 311	Building Acoustics	3
ARE 313	Electrical Installations	3
ARE 315	Lighting Systems and Applications	3
ARE 321	Structural Mechanics	3
ME 321 L	Structural Mechanics Lab	1
ME 332	Building Services Engineering	3
ARB 332 L	Building Services Engineering Lab	1
ENG ___	English Elective	3
	<b>Total</b>	<b>20</b>

**Senior Year - Spring Semester**

Course Code	Course-Title	CRHs
ARE 406	Fundamentals of Reinforced Concrete Design	3
ARE465	Management Principles in Building Engineering	3
ARE 492	Architectural Engineering Capstone Project II	2
ARE 4 __	Technical Elective	3
MAT 224	Numerical Methods	3
_____	General Education Elective I	2
_____	General Education Elective II	2
	<b>Total</b>	<b>18</b>