

كلَّىة الهندسة College of Engineering

Bachelor of Architectural Engineering

Professional Occupations

Program Overview

Architectural Engineering combines architecture with engineering to focus on the link between design systems 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 architectural.

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.



Engineering Accreditation Commission

ABET Accredited Program

Tracks

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.

Optional tracks are available for students in the areas of:

Collaborators





Honeywell

































Qiddiya













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Alfaisal University Bachelor of Architectural Engineering | Study Plan Summary | Effective: Fall 2021

4-Year Curriculum: 152 Credit Hours Total

Freshman Year - Fall Semester		
Course Code	Course-Title	CRHs
SE 100	Programming for Engineers	3
SE 100 L	Programming for Engineers Lab	1
CHM 102	Introduction to Chemistry	3
CHM 102 L	Introduction to Chemistry Lab	1
MAT 101	Calculus I	3
PHU 103	Mechanics and Waves for Engineers	3
PHU 103 L	Mechanics and Waves for Engineers Lab	1
ENG 101	Freshman English I	3
	Total	18

Freshman Year - Spring Semester			
Course Code	Course-Title	CRHs	
ARE 110	Architectural History and Theories	3	
ARE 120	Drafting and Drawing	1	
ARE 120 S	Drafting and Drawing Studio	2	
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	
ENG 112	Freshman English II	3	
	Total	20	

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	
	Total	20	

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
	Total	19

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	Liner Algebra	3
MAT 213	Differential Equations	3
ISL 101	Islamic Studies I	2
	Total	20

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
ARE 321 L	Structural Mechanics Lab	1
ARE 332	Building Services Engineering	3
ARE 332 L	Building Services Engineering Lab	1
	Total	17

Junior Year - Summer Semester		
Course Code	Course-Title	CRHs
ARE 390	Architectural Engineering Summer Internship	0
	Total	0

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
	Total	20

Senior Year - Spring Semester			
Course Code	Course-Title	CRHs	
ARE 406	Fundamentals of Reinforced Concrete Design	3	
ARE 465	Management Principles in Building Engineering	3	
ARE 492	Architectural Engineering Capstone Project II	2	
ARE 4	Technical Elective	3	
MAT 224	Numerical Methods	3	
ARB 112	Arabic Language and Literature II	2	
ISL 112	Islamic Studies II	2	
	Total	18	

^{*}Details on list of technical elective courses and suggested plans for optional tracks are available on the department's website.