

Alfaisal University

Bachelor of Software Engineering | Study Plan Summary | Effective: Fall 2025

4 Year Curriculum: 130 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
MAT 101	Calculus I	3
PHU 103	Physics I	3
PHU 103 L	Physics I Lab	1
ENG 101	University Writing	3
	Social Sciences Elective I	3
COE 100	Student Orientation & Academic Success	1
	<b>Total</b>	<b>18</b>

Sophomore Year - Fall Semester		
Course Code	Course-Title	CRHs
SE 201	Introduction to Software Engineering	3
SE 215	Data Structures	3
SE 215 L	Data Structures Lab	1
SE 220	Object-Oriented Programming II	3
SE 220 L	Object-Oriented Programming II Lab	1
SE 239	Network Programming	3
MAT 212	Linear Algebra	3
	<b>Total</b>	<b>17</b>

Junior Year - Fall Semester		
Course Code	Course-Title	CRHs
SE 301	Analysis of Algorithms	3
SE 310	Software Design and Architecture	3
SE 314	Operating Systems	3
SE 324	Web Application Development	3
SE 324 L	Web Application Development Lab	1
STA 212	Probability and Statistics	3
	<b>Total</b>	<b>16</b>

Junior Year – Summer Semester		
Course Code	Course-Title	CRHs
SE 390	Internship	0
	<b>Total</b>	<b>0</b>

Senior Year - Fall Semester		
Course Code	Course-Title	CRHs
XX 4__	Technical Elective 1	3
XX 4__	Technical Elective 2	3
SE 412	Software Testing and Quality Assurance	3
SE 495	Capstone Project I	3
	Social Sciences Elective III	3
	<b>Total</b>	<b>15</b>

Freshman Year - Spring Semester		
Course Code	Course-Title	CRHs
SE 120	Object-Oriented Programming I	3
SE 120 L	Object-Oriented Programming I Lab	1
SE 151	Discrete Mathematics	3
CHM 102	General Chemistry	3
CHM 102L	General Chemistry Lab	1
MAT 112	Calculus II	3
PHU 124	Physics II	3
PHU 124 L	Physics II Lab	1
	<b>Total</b>	<b>18</b>

Sophomore Year - Spring Semester		
Course Code	Course-Title	CRHs
SE 225	Software Requirements	3
SE 252	Database Management Systems	3
SE 252 L	Database Management Systems Lab	1
CSE 250	Introduction to Cybersecurity	3
EE 210	Digital Logic Design	3
EE 210 L	Digital Logic Design Lab	1
ENG 222	Technical Writing	3
	<b>Total</b>	<b>17</b>

Junior Year - Spring Semester		
Course Code	Course-Title	CRHs
SE 322	Internet of Things Application Development	3
SE 328	Mobile Application Development	3
SE 328L	Mobile Application Development Lab	1
SE 354	Software Project Management	3
MAT 224	Numerical Methods	3
	Social Sciences Elective II	3
	<b>Total</b>	<b>16</b>

Senior Year - Spring Semester		
Course Code	Course-Title	CRHs
XX 4__	Technical Elective 3	3
XX 4__	Technical Elective 4	3
SE 423	Software Construction and Processes	3
SE 496	Capstone Project II	3
SE 481	Ethics and Professional Development	1
	<b>Total</b>	<b>13</b>



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Prerequisites Chart (Effective Fall 2024)

