



## Study Plan for Bachelor's Degree in Software Engineering for year 2021 - 2022

The Bachelor's Degree in Software Engineering awarded at Princess Sumaya University for Technology after the successful completion of 132 Credit Hours distributed as follows:-

### University Requirements (27 CHs)

#### 1. Compulsory Requirements (18 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11100	Computer Skills (Remedial)	0		
31021	Arabic Language Communication Skills (Remedial)	0		
31022	English Language Communication Skills (Remedial)	0		
31112	Arabic Language Communication Skills	3	31021	
31122	English Language Communication Skills	3	31022	
31151	National Education	3		
31160	Leadership and Societal Responsibility	0		
31251	Military Science	3		
31254	Entrepreneurship and Innovation	3	Finish 60 Credit Hours	
31374	Life Skills	3	Finish 60 Credit Hours	

#### 2. Elective Requirements (9 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
20251	History of Science	3		
31100	Sports and Health	3		
31130	Foreign languages	3		
31152	Arabic Islamic Civilization	3		
31211	Arabic Literature	3	31112	
31252	Governance and Development	3		
31260	Human Rights	3		
31261	Introduction to Politics and Economic Science	3		
31264	Introduction To Psychology	3		
31272	Development and Environment	3		
31311	Scientific Research Methods	3		
31351	Contemporary Issues in the Arab World	3		
31352	Jerusalem : History and Facts	3		
31362	Philosophy and Critical Thinking	3		

### School Requirements (25 CHs)

#### 1. Compulsory Requirements (25 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11102	Introduction to Computer Science	3		
11103	Structured Programming	3	11102	
11151	Structured Programming Lab	1		11103
20132	Calculus (1)	3		



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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
20133	Calculus (2)	3	20132	
20134	Discrete Mathematics (1)	3		
20200	Technical Writing and Communication Skills	3	31112,31122	
20233	Statistical Methods	3		
20234	Linear Algebra	3	20133	

### Program Requirements (80 CHs)

#### 1. Compulsory Requirements (68 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11206	Object Oriented Programming	3	11103	
11212	Data Structures and Introduction to Algorithms	3	11206,20134	
11253	Object Oriented Programming Lab	1		11206
11313	Algorithms Design and Analysis	3	11212	
11323	Database Systems	3	11212	
11335	Operating Systems	3	11212,22342	
11354	Database Systems Lab	1		11323
11355	Operating Systems Lab	1		11335
11435	Data Communications & Computer Networks	3	11212	
11449	Computer and Society	1	Finish 70 Credit Hours	
12242	Webpage Design and Internet programming LAB	1		12243
12243	Webpage Design and Internet programming	3	11206	
12343	Visual Programming	3	11206	
13211	Introduction to Software Engineering	3	11206	
13212	Software Construction	3	11212,13211	
13324	System Analysis And Design	3	11212,13211	
13325	Software Requirements Analysis	3	13324	
13326	Software Engineering Approaches to Human Computer Interaction	3	12343	
13327	Software Design and Architecture	3	13212	
13391	Practical Training	3	Finish 90 Credit Hours	
13428	Software Quality Assurance and Testing	3	13212	
13432	Software Project Management	3	13324	
13435	Database Management System	3	11323	
13491	Graduation Project 1	1	Finish 90 Credit Hours	
13493	Graduation Project 2	2	13491	
22241	Digital Logic Design	3		
22342	Computer Organization and Assembly Language	3	22241	

#### 2. Elective Requirements (12 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11347	Electronic Business	3	12243	
11428	Artificial Intelligence	3	11212	
11447	Wireless Networks and Applications	3	11435	



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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11464	Information Systems Security	3	11435	
12348	Multimedia Systems	3	11206	
13334	Mobile Application Development	3	11206	
13335	Server Side Programming	3	11323,12243	
13393	Special Topic in Software Engineering (1)	3		
13413	Formal Methods in Software Engineering	3	13324	
13424	Software Re-Engineering	3	13212	
13427	Software Documentation	3	13324	
13431	Advanced Topics in Programming	3	13212	
13433	Risk Management for Software intensive projects	3	13324	
13434	Secure Software Development	3	11323,12243	
13494	Special Topic in Software Engineering (2)	3		
20333	Numerical Analysis	3	20133	