

## Study Plan for Bachelor's Degree in Software Engineering for year 2019-2020

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 (12 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11100	Computer Skills (Remedial)	0		
31019	Arabic Language (Remedial)	0		
31029	English Language (Remedial)	0		
31111	Arabic Language	3	31019	
31121	English Language	3	31029	
31151	National Education	3		
31153	Introduction to Society, Technology and Environment Protection	0		
31154	Community Service	0		
31251	Military Science	3		

#### 2. Elective Requirements (15 CHs)

##### 2.1. Elective University Requirements (General) (6 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
20251	History of Science	3		
20252	Arab Islamic Scientific Heritage	3		
31100	Sports and Health	3		
31152	Arabic Islamic Civilization	3		
31161	Introduction to Library Science	3		
31211	Arabic Literature	3	31111	
31252	Governance and Development	3		
31261	Introduction to Politics and Economic Science	3		
31262	Introduction to Educational Science	3		
31264	Introduction To Psychology	3		
31271	Environmental Science	3		
31351	Contemporary Issues in the Arab World	3		
31352	Jerusalem : History and Facts	3		
31361	Introduction to Philosophy	3		
31371	Health Education	3		

##### 2.2. Elective University Requirements (Scientific, Practical) (9 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
31130	Foreign languages	3		
31255	Entrepreneurship for Business	3	Finish 60 Credit Hours	
31311	Scientific Research Methods	3		
31373	21st Century Skills	3	Finish 60 Credit Hours	

### School Requirements (25 CHs)

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### 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		
20133	Calculus (2)	3	20132	
20134	Discrete Mathematics (1)	3		
20200	Technical Writing and Communication Skills	3	31111,31121	
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	



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**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	
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	