



Study Plan for Bachelor's Degree in Computer Engineering

The Bachelor's Degree in Computer Engineering awarded at Princess Sumaya University for Technology after the successful completion of 160 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 (30 CHs)

1. Compulsory Requirements (30 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11103	Structured Programming	3	11100	
11151	Structured Programming Lab	1		11103
20132	Calculus (1)	3		
20133	Calculus (2)	3	20132	



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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
20140	Basic Concepts in Chemistry	1		
20141	Physics (1)	3		
20142	Physics (2)	3	20141	
20150	Physics Lab	1		20142
20200	Technical Writing and Communication Skills	3	31112,31122	
20231	Calculus (3)	3	20133	
21218	Engineering Drawing Lab	1		
21219	Engineering Workshop	1		
23411	Engineering Economics	3	Finish 99 Credit Hours	
24411	Engineering Ethics	1	Finish 99 Credit Hours	

Program Requirements (103 CHs)

1. Compulsory Requirements (94 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	
20134	Discrete Mathematics (1)	3		
20232	Engineering Mathematics(1)	3	20133	
20234	Linear Algebra	3		
20333	Numerical Analysis	3	20133	
20335	Applied Probability and Statistics	3	20231	
21221	Electric Circuits (1)	3	20142	
21222	Electric Circuits (2)	3	21221	
21229	Electric Circuits Lab	1		21222
21231	Electronics (1)	3	21221	
21332	Digital Electronics	3	21231	
21339	Digital Electronics Lab	1	21229	21332
22241	Digital Logic Design	3		
22320	Computer Architecture (1)	3	22241	
22321	Computer Architecture (2)	3	22320,22348	
22344	Microprocessors	3	21231,22241	
22348	Digital Logic Lab	1	22241	
22420	Computer Design Lab	1	22321	
22442	Embedded Systems	3	21231,22348	
22443	Computer Networks	3	20335,23355	
22448	Embedded Systems Lab	1	22442	
22449	Computer Networks Lab	1	22443	
22460	Operating Systems and Security	3	11212,25330	
22461	Operating Systems and Security Lab	1		22460
22490	Practical Training	3	Finish 99 Credit Hours	



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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
22560	Network Programming and Applications	3	22443,22460	
22570	Artificial Intelligence and Machine Learning	3	11212,20234,20335	
22591	Senior Project (1)	1	Finish 120 Credit Hours	
22592	Senior Project (2)	2	22591	
23351	Signals and Systems	3	20232,21222	23356
23355	Communication Principles	3	23351	
23356	Programming Applications in Signals & Systems Lab	1		23351
24471	Automatic Control	3	23351	
24479	Automatic Control Lab	1		24471
25330	Information Security Fundamentals	3	20134,20234	

2. Elective Requirements (9 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
12446	Digital Image Processing	3	11206	
13477	Software Engineering	3	11323	
21531	VLSI Circuits	3	21332	
21581	Special Topics in Electronics Engineering	3		
22466	Mobile Application Programming	3	11206	
22520	Parallel Processing	3	22321	
22542	Advanced Computer Networks	3	22443	
22543	Digital System Design	3	22321	
22545	Neural Networks and Fuzzy Logic	3	11212,22241	
22546	Network Management & Security	3	22443	
22582	Special Topics in Computer Engineering (1)	3		
22583	Special Topics in Computer Engineering (2)	3		
23457	Cellular Communications	3	23355	
23571	Digital Signal Processing	3	23351	
23576	Wireless Internet of Things	3	23355	
23582	Special Topics in Communications Engineering (1)	3		
24583	Special Topics in Power And Energy Engineering	3		
25541	Cloud Computing & Security	3	22443,25330	
25576	Network Performance Analysis	3	20335,22443	
25593	Special Topics in Network Security Engineering (1)	3		
25595	Special Topics in Information Security (1)	3		