Study Plan for Bachelor'sDegree in Computer Engineering for year 2023-2024

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

2. Elective Requirements (9 CHs)

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

School Requirements (30 CHs)

1. Compulsory Requirements (30 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
11103	Structured Programming	3	11100		

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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
11151	Structured Programming Lab	1		11103	
20132	Calculus (1)	3			
20133	Calculus (2)	3	20132		
20140	Basic Concepts in Chemistry	1			Online
20141	Physics (1)	3			
20142	Physics (2)	3	20141		
20150	Physics Lab	1		20142	
20200	Technical Writing and Communication Skills	3	31112,31122		Blended
20231	Calculus (3)	3	20133		
21218	Engineering Drawing Lab	1			Blended
21219	Engineering Workshop	1			
24411	Engineering Ethics	1	Finish 99 Credit Hours		Blended
27411	Engineering Economics	3	Finish 99 Credit Hours		

Program Requirements (103 CHs)

1. Compulsory Requirements (94 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
11206	Object Oriented Programming	3	11103		
11212	Data Structures and Introduction to Algorithms	3	11206,20134		
11253	Object Oriented Programming Lab	1		11206	Online
11313	Algorithms Design and Analysis	3	11212		
11323	Database Systems	3	11212		
20134	Discrete Mathematics (1)	3			Blended
20232	Engineering Mathematics(1)	3	20133		Blended
20234	Linear Algebra	3			
20333	Numerical Analysis	3	20133		Blended
20335	Applied Probability and Statistics	3	20231		Blended
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	
22210	Programming Applications Lab	1	11151		
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	22241	20335	

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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
22448	Embedded Systems Lab	1	22442		
22449	Computer Networks Lab	1	22443		
22460	Operating Systems and Security	3	11212,25330		Blended
22462	Operating Systems Lab	1		22460	
22490	Practical Training	3	Finish 115 Credit Hours		
22560	Network Programming and Applications	3	22443,22460		Blended
22570	Artificial Intelligence and Machine Learning	3	11212,20234,20335		
22591	Senior Project (1)	1	22490,Finish 118 Credit Hours		Blended
22592	Senior Project (2)	2	22591		Blended
24471	Automatic Control	3	27353		
24479	Automatic Control Lab	1		24471	
25330	Information Security Fundamentals	3	11206		
27353	Signals and Systems	3	20232,21222,22210		
27355	Communication Principles	3	27353		

2. Elective Requirements (9 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
12446	Digital Image Processing	3	11206		
13477	Software Engineering	3	11323		Blended
21531	VLSI Circuits	3	21332		Blended
21581	Special Topics in Electronics Engineering	3			Blended
22466	Mobile Application Programming	3	11206		Blended
22521	High-Performance Computing	3	22320		
22542	Advanced Computer Networks	3	22443		Blended
22543	Digital System Design	3	22321		Blended
22546	Network Management & Security	3	22443		Blended
22571	Advanced Machine Learning	3	22570		
22582	Special Topics in Computer Engineering (1)	3			
22583	Special Topics in Computer Engineering (2)	3			Blended
24583	Special Topics in Power And Energy Engineering	3			Blended
25420	Networks Security	3	25330	25441	
25441	Wireless Networks	3	22443		
25541	Cloud Computing & Security	3	22443,25330		Blended
25576	Network Performance Analysis	3	20335,22443		Blended
25593	Special Topics in Network Security Engineering (1)	3			Blended
25594	Special Topics in Network Security Engineering (2)	3			Blended
25595	Special Topics in Information Security (1)	3			Blended

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
25596	Special Topics in Information Security (2)	3			Blended
27455	Cellular Communications	3	27355		
27550	Digital Signal Processing	3	27353		
27551	Wireless IoT	3	27355		Blended
27582	Special Topics in Communications Engineering	3			