



Study Plan for Bachelor's Degree in Networks and Information Security Engineering for year 2019-2020

The Bachelor's Degree in Networks and Information Security 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 (12 CHs)

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

2. Elective Requirements (15 CHs)

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

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

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

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



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School Requirements (30 CHs)

1. Compulsory Requirements (30 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
11103	Structured Programming	3	11100		
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	31111,31121		Blended
20231	Calculus (3)	3	20133		
21218	Engineering Drawing Lab	1			Blended
21219	Engineering Workshop	1			
23411	Engineering Economics	3	Finish 99 Credit Hours		
24411	Engineering Ethics	1	Finish 99 Credit Hours		Blended

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
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		
21231	Electronics (1)	3	21221		
21332	Digital Electronics	3	21231		
22241	Digital Logic Design	3			
22348	Digital Logic Lab	1	22241		
22442	Embedded Systems	3	21231,22348		
22443	Computer Networks	3	20335,22241		
22448	Embedded Systems Lab	1	22442		
22449	Computer Networks Lab	1	22443		
22460	Operating Systems and Security	3	11212,25330		Blended
22461	Operating Systems and Security Lab	1		22460	



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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
22560	Network Programming and Applications	3	22443,22460		Blended
23351	Signals and Systems	3	20232,21222	23356	Blended
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		
25347	Cryptography	3	20134,20234		
25420	Networks Security	3	25347	25441	
25441	Wireless Networks	3	22443		
25445	Wireless Networks Lab	1	25441		
25490	Practical Training	3	Finish 115 Credit Hours		
25520	Penetration Testing	3	25420		
25543	Intrusion Detection & Network Forensics	3	25420		Blended
25545	Network Security Lab	1	25420		
25549	Ethical Hacking Techniques Lab	1		25543	
25591	Senior Project (1)	1	25490, Finish 118 Credit Hours		Blended
25592	Senior Project (2)	2	25591		Blended

2. Elective Requirements (9 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
11466	Secure Software Development	3	22460		
11467	Database Security	3	11323,25330		
22530	Software Reverse Engineering	3	22442		Blended
22570	Artificial Intelligence and Machine Learning	3	11212,20234,20335		
22582	Special Topics in Computer Engineering (1)	3			
23576	Wireless Internet of Things	3	23355		Blended
23582	Special Topics in Communications Engineering (1)	3			Blended
25530	Information Systems Security Assessment	3	25330		Blended
25541	Cloud Computing & Security	3	22443,25330		Blended
25542	Cyber Laws	3	25330		Blended
25576	Network Performance Analysis	3	20335,22443		Blended
25582	Operation & Administration of Security Centers	3	22443,25330		Blended
25583	IT Audit	3	22443,25330		Blended
25584	Risk Management	3	20335,25330		Blended
25585	Multimedia Networks	3	22443		Blended
25586	Hardware Security	3	22442,25330		Blended
25587	Secure System Architecture	3	25330		Blended



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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
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
25596	Special Topics in Information Security (2)	3			Blended