



**Study Plan for Bachelor's Degree in  
Communications Engineering  
for year 2019-2020**

The Bachelor's Degree in Communications 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
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		
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 (30 CHs)**



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### 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	
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	31111,31121	
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
20232	Engineering Mathematics(1)	3	20133	
20234	Linear Algebra	3		
20331	Engineering Mathematics(2)	3	20231,20232	
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	
21331	Electronics (2)	3	21231	
21338	Electronics Lab	1	21229	21331
21431	Communication Electronics	3	21331,23357	
21439	Communication Electronics Lab	1	21338	21431
22241	Digital Logic Design	3		
22442	Embedded Systems	3	21338,22241	
22448	Embedded Systems Lab	1	22442	
23321	Electromagnetics (1)	3	20142,20331	
23351	Signals and Systems	3	20232,21222	23356
23356	Programming Applications in Signals & Systems Lab	1		23351
23357	Communications (1)	3	23351	
23421	Electromagnetics (2)	3	23321	
23423	Antenna and Microwave Engineering	3	23421	
23452	Communications (2)	3	20335,23357	



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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
23453	Virtual Reality Mobile Applications Development	3	11103	
23454	Communication Networks	3	23452	
23455	Communication Networks Lab	1		23454
23457	Cellular Communications	3	23452	
23459	Communications Lab	1	21338	23452
23490	Practical Training	3	Finish 99 Credit Hours	
23551	Optical Communications	3	23357	
23557	Optical Communications Lab	1		23551
23558	Cellular Communications Lab	1	23457	
23571	Digital Signal Processing	3	23351	
23576	Wireless Internet of Things	3	23452	
23591	Senior Project (1)	1	Finish 120 Credit Hours	
23592	Senior Project (2)	2	23591	
24361	Electric Machines (1)	3	21222,23321	
24471	Automatic Control	3	23351	
24479	Automatic Control Lab	1		24471

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

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11206	Object Oriented Programming	3	11103	
20242	Materials Physics and Chemistry for Engineers	3	20132,20142	
21574	Medical Electronics	3	21331	
21581	Special Topics in Electronics Engineering	3		
22582	Special Topics in Computer Engineering (1)	3		
23481	Information Theory and Encryption	3	23357	
23482	Satellite Communications	3	23452	
23483	Advanced Communications Systems	3	23452	
23484	Radar Systems	3	23357	
23485	Smart Grid Communications	3	23453,23571	
23486	Multimedia Communications	3	23587	
23582	Special Topics in Communications Engineering (1)	3		
23583	Special Topics in Communications Engineering (2)	3		
23584	Coding and Cryptography	3	23452	
23585	Wireless Network Architecture	3	23452	
23586	Sensor Networks	3	23454	
23587	Digital Image Processing	3	23571	
23588	Computer Vision	3	23571	
24583	Special Topics in Power And Energy Engineering	3		
25593	Special Topics in Network Security Engineering (1)	3		
25595	Special Topics in Information Security (1)	3		