



## Study Plan for Bachelor's Degree in Communication Engineering\Internet of Things for year 2021 - 2022

The Bachelor's Degree in Communication Engineering\Internet of Things 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	
11323	Database Systems	3	11212	
20134	Discrete Mathematics (1)	3		
20232	Engineering Mathematics(1)	3	20133	
20234	Linear Algebra	3		
20331	Engineering Mathematics(2)	3	20231,20232	
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
22241	Digital Logic Design	3		
22348	Digital Logic Lab	1		22241
22442	Embedded Systems	3	21231,22348	
22448	Embedded Systems Lab	1	22442	
22460	Operating Systems and Security	3	11212,25330	
23321	Electromagnetics (1)	3	20142,20331	
23351	Signals and Systems	3	20232,21222	
23355	Communication Principles	3	23351	
23454	Communication Networks	3	23355	
23455	Communication Networks Lab	1		23454
23457	Cellular Communications	3	23355	
23459	Communications Lab	1	21338	23355
23558	Cellular Communications Lab	1	23457	
23571	Digital Signal Processing	3	23351	
25330	Information Security Fundamentals	3	20134,20234	



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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
27331	Introduction to IoT	1	23355	
27453	IoT Applications	3	22442,27331	
27454	IoT Applications Lab	1		27453
27490	Practical Training	3	Finish 99 Credit Hours	
27541	IoT Security and Privacy	3	25330,27331	
27551	Wireless IoT	3	23355	
27552	Wireless IoT Lab	1		27551
27581	Artificial Intelligence in the Internet of Things	3	22448,27331	
27591	Senior Design Project (1)	1	Finish 120 Credit Hours	
27592	Senior Design Project (2)	2	27591	

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

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
27542	Wireless Network Architecture	3	23454,23457	
27580	Special Topics in IOT	3		
27582	Big Data in IoT	3	11323,27331	
27583	Blockchain in the Internet of Things	3	11323,27331	
27584	Internet of Robotics	3	22442	
27585	Cloud Computing in IoT	3	11323,27331	
27586	Control Technology of IoT	3	22442	
27587	Network Protocols for IoT	3	23454,23457	
27588	Autonomous Vehicles	3	11323,27331	
27589	Optimization	3	20234	
27594	Smart Grid Communications	3	23355,23454	