Study Plan for Bachelor'sDegree in Communications Engineering \ Internet of Things for year 2024-2025

The Bachelor's Degree in Communications 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	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		Blended

Program Requirements (103 CHs)

1. Compulsory Requirements (94 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
11325	Database Fundamentals	3	11103		Blended
20134	Discrete Mathematics (1)	3			Blended
20232	Engineering Mathematics(1)	3	20133		Blended
20234	Linear Algebra	3			
20331	Engineering Mathematics(2)	3	20231 , 20232		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	
21233	Electronics Circuits Fundamentals	3	21221		
21338	Electronics Lab	1	21229 , 21233		
22210	Programming Applications Lab	1	11151		
22241	Digital Logic Design	3			
22242	Object Oriented Laboratory for IoT	1	11103		
22348	Digital Logic Lab	1	22241		
22570	Artificial Intelligence and Machine Learning	3	11325 , 20234 , 20335		
24471	Automatic Control	3	27353		
27321	Electromagnetics (1)	3	20142 , 20331		
27331	Introduction to IoT	3	21221 , 22242		
27351	Internet of things programming and applications	3	27331		
27353	Signals and Systems	3	20232 , 21222 , 22210		
27355	Communication Principles	3	27353		
27420	Wireless and Mobile Communications	3	27355		Blended
27430	IoT Middleware Platforms	3	27351		

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
27441	IoT Security and Privacy	3	20134 , 20234 , 27331		
27442	Internet of Things Security Lab	1		27441	
27450	Antennas and Waves Propagation	3	27321 , 27355		Blended
27451	Communication Networks	3	27355		Blended
27452	Communication Networks Lab	1		27451	
27456	Communications Lab	1	21338	27355	
27470	IoT Sensor Networks	3	27420		
27471	IoT Sensor Networks Lab	1		27470	
27490	Practical Training	3	Finish 115 Credit Hours		
27520	Mobile Communications & Wireless IoT Lab	1	27420	27551	
27550	Digital Signal Processing	3	27353		
27551	Wireless IoT	3	27355		Blended
27570	Fog Computing for IoT	3	27451		
27591	Senior Design Project (1)	1	27490 , Finish 118 Credit Hours		Blended
27592	Senior Design Project (2)	2	27591		Blended

2. Elective Requirements (9 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent	Online
21581	Special Topics in Electronics Engineering	3			Blended
22582	Special Topics in Computer Engineering (1)	3			
24583	Special Topics in Power And Energy Engineering	3			Blended
25593	Special Topics in Network Security Engineering (1)	3			Blended
27457	Optical Communications	3	27355		Blended
27458	Satellite Communications	3	27355		Blended
27481	Coding and Cryptography	3	27355		Blended
27554	Digital Image Processing	3	27550		Blended
27556	Wireless Network Architecture	3	27451		Blended
27557	Advanced Communications Systems	3	27355		Blended
27558	Smart Grid Communications	3	27451		Blended
27571	Smart Cities	3	27451		Blended
27580	Special Topics in IOT	3			Blended
27582	Special Topics in Communications Engineering	3			Blended
27583	Blockchain in the Internet of Things	3	11325 , 27331		
27584	Internet of Robotics	3	27351		
27585	Cloud Computing in IoT	3	11325 , 27251		
27586	Control Technology of IoT	3	24471 , 27351		
27587	Network Protocols for IoT	3	27451		
27588	Autonomous Vehicles	3	11325		
27589	Optimization	3	20234		