Princess Sumaya University for Technology
جامعة الأميرة سمية للتكنولوجيا

Date Of Issue: 16/01/2024

Study Plan for Bachelor'sDegree in Electrical Power and Energy Engineering for year 2015-2016

The Bachelor's Degree in Electrical Power and Energy 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
20252	Arab Islamic Scientific Heritage	3		
31100	Sports and Health	3		
31152	Arabic Islamic Civilization	3		
31161	Introduction to Library Science	3		
31171	History of 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		
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		
31372	Business Skills	3	Finish 60 Credit Hours	

School Requirements (30 CHs)

1. Compulsory Requirements (30 CHs)

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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
00099	99 Credit Hours	0		
11103	Structured Programming	3	11100	
11151	Structured ProgrammingLab	1		11103
20132	Calculus (1)	3		
20133	Calculus (2)	3	20132	
20141	Physics (1)	3		
20142	Physics (2)	3	20141	
20148	Physics (1) Lab	1		20141
20149	Physics (2) Lab	1		20142
20200	Technical Writing and Communication Skills	3	31111,31121	
20231	Calculus (3)	3	20133	
24218	Engineering Drawing Using Computers	1		
24219	Engineering Workshop	1		
24411	Engineering Ethics	1	Finish 99 Credit Hours	
32431	Engineering Economics	3	Finish 99 Credit Hours	

Program Requirements (103 CHs)

1. Compulsory Requirements (97 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
20232	Engineering Mathematics(1)	3	20133	
20234	Linear Algebra	3	20132	
20331	Engineering Mathematics(2)	3	20231,20232	
20333	Numerical Analysis	3	20133	
20334	Applied Probability	3	20231	
21231	Electronics (1)	3	24221	
21331	Electronics (2)	3	21231	
21338	Electronics Lab	1	24229	21331
22241	Digital Logic Design	3		
22340	Microprocessors & Embedded Systems	3	21231,22241	
22346	Logic & Embedded Systems Lab	1		22340
23351	Signals and Systems	3	20232,24222	23352
23352	Programming Applications in Signals & Systems	1		23351
24221	Electric Circuits (1)	3	20142	
24222	Electric Circuits (2)	3	24221	
24229	Electric Circuits Lab	1		24222
24311	Thermodynamics	3	20142	
24321	Applied Electromagnetics	3	20142,20331	
24322	Instruments and Measurements	3	21231	
24329	Instruments and Measurements Lab	1	24229	24322
24461	Electric Machines (1)	3	24222,24321	
24462	Electric Machines (2)	3	24461	
24463	Power Systems Analysis	3	24222	24461
24465	Power Systems Economics	3	24463	

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Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
24468	Electric Machinery Lab	1		24462
24469	Power Systems lab	1		24463
24471	Automatic Control	3	23351	
24472	Energy Conversion	3	24311	
24479	Automatic Control Lab	1		24471
24490	Practical Training	3	Finish 99 Credit Hours	
24561	Power Electronics	3	21331	
24562	Power Systems Protection	3	24463	
24563	Power Systems Planning, Operation and Control	3	24463	
24564	Transmission & Distribution Systems	3	24463	
24565	High Voltage Engineering	3	24463	
24568	Power Electronics Lab	1		24561
24569	Power Systems Protection Lab	1		24562
24571	Renewable Energy Systems	3	24463	
24591	Senior Project (1)	1	Finish 120 Credit Hours	
24592	Senior Project (2)	2	24591	

2. Elective Requirements (6 CHs)

Course Number	Course Title	Credit Hours	Prerequisite	Concurrent
11206	Object Oriented Programming	3	11103	
21581	Special Topics in Electronics Engineering	3	20334,21331	
22581	Special Topics in Computer Engineering	3		
23581	Special Topics in Communications Engineering	3		
24566	Reliability of Power Systems	3	24463	
24567	Power Systems Design	3	24463	
24572	Electric Drives Systems	3	24462	
24581	Special Topics in Power Engineering	3		
24582	Special Topics in Energy Engineering	3		