



Study Plan For Electrical and Electronic Engineering Department 2017

General courses

First Semester Courses							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Mathematic I	4	Math 101	3	1	-	Nil
2	Chemistry I	3	Chem 101	3	1	-	Nil
3	Chemistry Lab I	1	Chem 103	-	-	2	Chem 101
4	Physics I	3	Phy 101	3	1	-	Nil
5	Physics Lab I	1	Phy 103	-	-	2	Phy 101
6	English Language I	2	Eng 101	2	1	-	Nil
7	Arabic Language I	2	Arb 101	2	1	-	Nil
8	Political Culture	2	Pol 101	2	-	-	Nil
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Second Semester Courses							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Mathematic II	4	Math 102	3	1	-	Math 101
2	Chemistry II	3	Chem 102	3	1	-	Chem 101
3	Chemistry Lab II	1	Chem 104	-	-	2	Chem 102
4	Physics II	3	Phy 102	3	1	-	Phy 101
5	Physics Lab II	1	Phy 104	-	-	2	Phy 102
6	English Language II	2	Eng 102	2	1	-	Eng 101
7	Arabic Language II	2	Arb 102	2	1	-	Arb 101
8	Engineering Drawing I	2	Ge 101	1	-	2	Nil
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(Communications Option)

Third Semester Courses (Compulsory)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Circuit Theory I	4	EE 211	3	1	-	Math 202* , Phys 102
2	Electromagnetic I	4	EE 221	3	1	-	Math 102 , Phys 102
3	Basic Electrical Lab. I	2	EE 221	-	-	2	EE 211* , Phys 104
4	Calculus	3	Math 201	3	1	-	Math 102
5	Differential Equations	3	Math 202	3	1	-	Math 102
6	Intro. to computer and Programming	3	Comp 101	2	-	2	Nil
7	Technical Writing and Oral Presentation	2	Tw 307	2	1	-	Eng 102
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Fourth Semester Courses (Compulsory)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Linear Algebra	3	Math 203	3	1	-	Math 102
2	Circuit Theory II	4	EE 212	3	1	-	EE 211
3	Material Science	3	EE 214	3	1	-	Math 102
4	Electromagnetic II	3	EE 222	3	1	-	EE221
5	Basic Electrical Lab. II	2	EE 282	-	-	2	EE 212* , EE281
6	Numerical Analysis	3	Math 301	3	1	-	Comp 101
		18					

Fifth Semester Courses (Compulsory)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Linear System Theory	3	EE 311	3	1	-	EE 212
2	Logic Design	3	EE 324	3	1	-	EE 211
3	Logic Design Lab.	2	EE 325	-	-	2	EE 324*
4	Electronics I	4	EE 331	3	1	-	EE 212 , EE 351*
5	Electronics Lab. I	2	EE 381	-	-	2	EE 331*
6	Electrical Measurements	3	EE 351	3	1	-	EE 282
7	Statistics & Probability	3	Stat 101	3	1	-	Math 102
		20					

Sixth Semester Courses (Communications Options)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Control Systems	4	EE 312	3	1	-	EE 311
2	Control Systems Lab.	2	EE 313	-	-	2	EE 312*
3	Electronics II	4	EE 332	3	1	-	EE 331
4	Electronics Lab. II	2	EE 382	-	-	2	EE 332*, EE 381
5	Telecommunications I	4	EE 360	3	1	-	EE332*
6	Telecommunications Lab. I	2	EE 361	-	-	2	EE 360*, EE 381
7	Electromech. Energy Conv. I	3	EE 341	3	1	-	EE 212, EE 222
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Seventh Semester Courses (Communications Options)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Power System Analysis	4	EE 409	3	1	-	EE 341
2	Digital Signal Processing	3	EE 414	3	1	-	EE 311
3	Antennas and Propagation	3	EE 452	3	1	-	EE 222
4	Telecommunications II	3	EE 494	3	1		EE 360
5	Telecommunications Lab. II	2	EE 496	-	-	2	EE 494*, EE 361
6	Elective Course	3	EE	3	1	-	
7	Project methods and proposal	2	EE 499				EE 360, 106 Units + AGPA \geq 2
		20					

Eight Semester Courses (Communications Options)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Microwaves	3	EE 423	3	1	-	EE 222
2	Microwaves Lab.	2	EE 484	-	-	2	EE 423*
3	Digital Communications	3	EE 485	3	1	-	EE 360
4	Elective Course	3	EE				
5	Engineering Economy	3	IE 307	2	1	-	Math 102
6	Final Project	4	EE 500	2	1	2	EE 499
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* For Co-requisite

Total Units = 154

Total Courses = 56

(Power System Eng. Option)

Third Semester Courses (Compulsory)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Circuit Theory I	4	EE 211	3	1	-	Math 202* , Phys 102
2	Electromagnetic I	4	EE 221	3	1	-	Math 102 , Phys 102
3	Basic Electrical Lab. I	2	EE 281	-	-	2	EE 211* , Phys 104
4	Calculus	3	Math 201	3	1	-	Math 102
5	Differential Equations	3	Math 202	3	1	-	Math 102
6	Intro. to computer and Programming	3	Comp 101	2	-	2	Nil
7	Technical Writing and Oral Presentation	2	Tw 307	2	1	-	Eng 102
		21					

Forth Semester Courses (Compulsory)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Linear Algebra	3	Math 203	3	1	-	Math 102
2	Circuit Theory II	4	EE 212	3	1	-	EE 211
3	Material Science	3	ES 214	3	1	-	Math 102
4	Electromagnetic II	3	EE 222	3	1	-	EE221
5	Basic Electrical Lab. II	2	EE 282	-	-	2	EE 212* , EE281
6	Numerical Analysis	3	Math 301	3	1	-	Comp 101
		18					

Fifth Semester Courses (Compulsory)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Linear System Theory	3	EE 311	3	1	-	EE 212
2	Logic Design	3	EE 324	3	1	-	EE 211
3	Logic Design Lab.	2	EE 325	-	-	2	EE 324*
4	Electronics I	4	EE 331	3	1	-	EE 212 , EE 351*
5	Electronics Lab. I	2	EE 381	-	-	2	EE 331*
6	Electromech. Energy Conv. I	3	EE 341	3	1	-	EE 212, EE 222
7	Electrical Measurements	3	EE 351	3	1	-	EE 282
		20					

Sixth Semester Courses (Power system Eng. Options)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Control Systems	4	EE 312	3	1	-	EE 311
2	Control Systems Lab.	3	EE 313	-	1	2	EE 312*
3	Electronics II	4	EE 332	3	1	-	EE 331
4	Electromech. Energy Conv. II	4	EE 342	3	1	-	EE 341
5	Electronics Lab. II	2	EE 382	-	-	2	EE 332*, EE 381
6	Statistics & Probability	3	Stat 101	3	1	-	Math 102
		20					

Seventh Semester Courses (Power system Eng. Options)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Power System Analysis I	4	EE 409	3	1	-	EE 341
2	Power Electronics	3	EE 429	3	1	-	EE 332
3	Telecommunications I	4	EE 360	3	1	-	EE332*
4	Elec. Machines Lab.	2	EE 384	-	1	3	EE 342*
5	Elective Course	3	EE				
6	Project methods and proposal	2	EE 499				EE 360, 106 Units + AGPA \geq 2
		18					

Eight Semester Courses (Power system Eng. Options)							
No	Course Name	Units	Designation	Weekly Hours			Prerequisite
				Theory	Tut.	Lab.	
1	Power Systems Analysis II	3	EE 410	3	1	-	EE 409
2	Power Syst. Prot. and Control	3	EE 420	3	1	-	EE 409 , EE 312
3	Power System Lab.	3	EE 486	-	-	3	EE 420* , EE 384
4	Elective Course	3	EE				
5	Engineering Economy	3	IE 307	2	1	-	Math 102
6	Final Project	4	EE 500	2	1	2	EE 499
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* For Co-requisite

Total Units = 152

Total Courses = 54

Elective Courses

Code	Course Name	Area	Units	Pre - , Co- requisites
EE 414	Digital Signal Processing	Telecommunications	3	EE 311
EE 495	Telephony and Teletraffic	Telecommunications	3	EE 360
EE 422	Radio, T.V. and Radar	Telecommunications	3	EE 360
EE 490	Satellite Communications	Telecommunications	3	EE 360
EE 481	Mobile Communications	Telecommunications	3	EE 360
EE 482	Wireless Communication	Telecommunications	3	EE 360
EE 471	Telecommunication Networks	Telecommunications	3	EE 360
EE412	Information Theory & Statistical Communication	Telecommunications	3	EE 360
EE 435	Renewable Energy	Power	3	EE 341 , ES 214
EE 429	Power Electronics	Power	3	EE 332
EE 430	Power Generation	Power	3	EE 342
EE 480	Electric Power Utilization	Power	3	EE 342
EE 470	Substation Equipments	Power	3	EE 409
EE 460	Design of Electrical Systems	Power	3	EE 409
EE 450	High Voltage	Power	3	EE 342
EE 440	Transmission Line Design	Power	3	EE 409
EE 449	Control Instrumentation	Control	3	EE 312
EE 411	Digital Control Systems	Control	3	EE 312
EE 461	Programmable Logic Controller	Control	3	EE 324
EE 492	Microprocessors and Applications	Control / Computer	3	EE 324
EE 459	Real Time Computer Appl.	Control / Computer	3	EE312, EE492
EE 451	Electronics Instrumentation	Electronics	3	EE 351
EE434	Solar Energy	Electronics	3	EE 331, ES 214
EE432	Integrated Electronics	Electronics	3	EE332
EE431	Pulse and Digital Circuits	Electronics	3	EE332
EE430	Power Generation	Electronics	3	EE342