

# DEPARTMENT OF ELECTRICAL ENGINEERING

## Study Plan:

### Bachelor of Science in Electrical Engineering

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MATH 101	Calculus I	3
	ARAB 100	Arabic Language I	3
	GENG 107	Engineering Skills and Ethics	3
	ENGL 202	English Language I Post Foundation	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
Total Credit Hours in Semester			16
Spring	MATH 102	Calculus II	3
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering I	1
	GENG 106	Computer Programming	3
	MATH 231	Linear Algebra	3
	ENGL 203	English Language II Post Foundation	3
	Total Credit Hours in Semester		

SECOND YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MATH 211	Calculus III	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	MATH 285	Mathematics for Electrical Engineering	3
	ELEC 201	Electric Circuits	3
	DAWA 111	Islamic Culture	3
	Total Credit Hours in Semester		
Spring	GENG 200	Probability and Statistics for Engineers	3
	GENG 300	Numerical Methods	3
	ELEC 202	Electric Circuits II	3
	ELEC 203	Electric Circuits II Laboratory	1
	ELEC 231	Fundamentals of Electronics	3
	ELEC 261	Digital Systems Design	3
	ELEC 262	Digital Systems Design Lab	1
Total Credit Hours in Semester			17

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THIRD YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ELEC 311	Electromagnetics	3
	ELEC 312	Electric Machines	3
	ELEC 313	Electric Machines Lab	1
	ELEC 371	Sensors and Instrumentation	3
	ELEC 351	Signals & Systems	3
	ELEC 366	Embedded Systems	3
	ELEC 367	Embedded Systems Lab	1
Total Credit Hours in Semester			17
Spring	ELEC 341	Communication Engineering	3
	ELEC 342	Communication Engineering Lab	1
	ELEC 352	Control Systems	3
	ELEC 321	Power Systems Analysis	3
	ELEC 325	Power Electronics	3
	ELEC 353	Signal Analysis & Filtering	3
Total Credit Hours in Semester			16
Summer	ELEC 399	Practical Training	3
Total Credit Hours in Semester			3

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ELEC 4XX	Major Elective I	3
	ELEC 4XX	Major Elective II	3
	GENG 360	Engineering Economics	3
	ELEC 498 OR GENG 498	Senior Design Project I OR Multidisciplinary Senior I	3
	ELEC 428	Electrical Engineering Design	3
	Total Credit Hours in Semester		
Spring	ELEC 4XX	Major Elective III	3
	ELEC 4XX	Major Elective IV	3
	ELEC 499 OR GENG 499	Senior Design Project II OR Multidisciplinary Senior Design II	3
		Core Curriculum Elective *	3
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	Total Credit Hours in Semester		

\* Student must complete a minimum of 3 credit hours from Social/Behavioral Sciences package and a minimum of 3 credit hours from Humanities /Fine Arts package.