College of Engineering (CoE)
Department of Electrical Engineering (EE)
Bachelor of Science in Electrical Engineering (BSEE)

جامعة الأمير مقرن بن عبد العزيز
University of Prince Mugrin

Electrical Engineering Program 4-Year Study Plan*

First Year: First Semester (Freshmen)					First Year: Second Semester (Freshmen)				
Course code	Course Title	Credit Hours	Requisite Pre-	Requisite Co-	Course code	Course Title	Credit Hours	Requisite Pre-	Requisite Co-
MATH 101	Calculus I	4	MATH 002		MATH 102	Calculus II	4	MATH 101	
PHYS 101	General Physics I	4	MATH 002	MATH 101	PHYS 102	General Physics II	4	PHYS 101	
CHEM 101	General Chemistry	4			ENGL 102	Introduction to Report Writing	3	ENGL 101	
ENGL 101	First Year Composition	3	ENGL 005		CS 141	Introduction to Computing for Engineers	3		
GHAL xxx	Humanities, Arts and Languages Elective	3			ENGG 103	Introduction to Engineering Drawing	1		
					GDMC xxx	Diversity and Multiculturalism Elective	3		
	Total	**18**				**Total**	**18**		
Second Year: First Semester (Sophomore)					**Second Year: Second Semester (Sophomore)**				
MATH 201	Differential Equations	3	MATH 102		MATH 202	Calculus III	3	MATH 102	
EE 201	Electric Circuits I	3	MATH 102, PHYS 102		MATH 204	Linear Algebra	3	MATH 102	
EE 203	Electric Circuits I Lab	1		EE 201	EE 202	Electric Circuits II	3	MATH 201, EE 201	
EE 231	Logic Circuits Design	3	CS 141, PHYS 102		EE 222	Electronic Circuits I	3	EE 201	
EE 233	Logic Circuits Design Lab	1		EE 231	EE 224	Electronic Circuits I Lab	1		EE 222
ENGL 201	Technical Writing	3	ENGL 102		GIAS 102	Arabic Language Skills	3		
GIAS 101	Islamic Culture	3							
	Total	**17**				**Total**	**16**		
Summer Field Experience I (Optional)			EE 294		1	Credit			
Third Year: First Semester (Junior)					**Third Year: Second Semester (Junior)**				
MATH 301	Advanced Mathematics for EE	3	MATH 202, MATH 204		STAT 342	Statistical Methods for Engineers	3	MATH 102	
EE 311	Electromagnetic Fields	2	PHYS 102, MATH 202		EE 312	Electromagnetic Waves	2	EE 311, MATH 301	
EE 321	Electronic Circuits II	3	EE 222		EE 326	Microprocessor & Microcontroller	3	EE 231, EE 321	
EE 323	Electronic Circuits II Lab	1		EE 321	EE 328	Microprocessor & Microcontroller Applications Lab	1		EE 326
EE 341	Signals & Systems	3	EE 202, MATH 201		EE 342	Introduction to Digital Signal Processing	3	EE 341	
EE 351	Electric Machines	3	EE 201		EE 356	Introduction to Modern Power Systems	3	EE 201	
GSOS xxx	Social Sciences Elective	3			EE 358	Electric Machines and Power Lab	1	EE 351	EE 356
					ENGG 304	Introduction to Engineering Economy	2		
	Total	**18**				**Total**	**18**		
Summer Field Experience II			EE 394		1	Credit			
Fourth Year: First Semester (Senior)					**Fourth Year: Second Semester (Senior)**				
EE 461	Control Systems Analysis	3	EE 341, MATH 301		ENGG 401	Engineering Management	3	ENGG 304	
EE 463	Control Systems Lab	1		EE 461	EE 492	Capstone Project II	3	EE 491	
EE 471	Communication Systems	3	EE 341, STAT 342		EE 4xx	Professional Elective II	3		
EE 473	Communication Systems Lab	1		EE 471	EE 4xx	Professional Elective III	3		
EE 491	Capstone Project I	1	Senior Status** >=98		GIAS xxx	Islamic Studies Elective	3		
EE 4xx	Professional Elective I	3							
XXXX xxx	Free Elective	3							
	Total	**15**				**Total**	**15**		
Total Credit Hours Required					**136**				

**Minimum of 98 earned credit Hours.
The English courses ENGL 111 and ENGL 112 can be taken as an elective within any of the areas ie GHAL, GDMC and GSOS

General Compulsory Courses	Program Compulsory Courses
General Elective Courses	Program Elective Courses
College Compulsory Courses	Summer Field Experience

* Subject to minor changes if required.

Approved by College of Engineering Council, Meeting No. 12, 23 April 2017

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