

UNIVERSITY OF MIAMI
DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING
BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING
ELECTRICAL ENGINEERING PRE-MED OPTION

137 Credits
2015 - 2016

Freshman Year:					
ECE 111	Introduction to Engineering I	3	ECE 112	Introduction to Engineering II	2
ENG 105	English Composition I	3	ENG 107	Writing About Science	3
MTH 151	Calculus I for Engineers	5	MTH 162	Calculus II	4
PHY 205	University Physics I	3	PHY 206	University Physics II	3
	Humanities and Arts Cognate*	3	PHY 208	University Physics II Lab	1
			CHM 111	Principles of Chemistry I	3
			CHM 113	Chemistry Laboratory I	1
Total			Total		
17			17		

Sophomore Year:					
ECE 201	Electrical Circuit Theory	3	ECE 118	Intro. To Programming	3
MTH 311	Ordinary Differential Equations	3	ECE 204	Electrical Circuits Laboratory	1
PHY 207	University Physics III	3	ECE 305	Electronics I	3
CHM 112	Principles of Chemistry II	3	PHY 209	University Physics III Lab	1
CHM 114	Chemistry II Lab	1	CHM 201	Organic Chemistry I (Lecture)	3
BIL 150	General Biology	4	CHM 205	Organic Chemistry Laboratory I	1
BIL 151	General Biology Lab	1	BIL 160	Evolution and Biodiversity	4
			BIL 161	Evolution and Biodiversity Lab	1
Total			Total		
18			17		

Junior Year:					
ECE 218	Data Structures	3	ECE 312	Processors: Hardware, Software and Interfacing	4
ECE 304	Logic Design	3	ECE 315	Digital Design Laboratory	1
ECE 306	Electronics II	3	ECE 336	Discrete-Time Signals and Systems	3
ECE 307	Circuits, Signals and Systems	3		Advanced Bioscience Elective***	3
ECE 311	Electronics Laboratory	1	MTH 210	Intro to Linear Algebra	3
CHM 202	Organic Chemistry II (Lecture)	3		People and Society Cognate*	3
CHM 206	Organic Chemistry Lab II	1			
Total			Total		
17			17		

Senior Year:					
ECE 310	Engineering Probability	3	ECE 416	Senior Project II	2
ECE 316	Structured Digital Design	1		EE Design Elective ⁺	3
ECE 415	Senior Project I**	1		ECE Elective ⁺	3
	EE Core Elective ⁺	3		Technical Elective ⁺	3
	EE Core Elective ⁺	3		Humanities and Arts Cognate *	3
	Humanities and Arts Cognate*	3		People and Society Cognate*	3
	People and Society Cognate*	3			
Total			Total		
17			17		

* Students in the Premed Concentration are encouraged to choose cognates that include PSY110 and SOC101.

** Offered only in the fall semester

***Advanced Bioscience Elective is to be chosen from BMB 260 BIL 250, BIL 255, BIL 268, or BMB 401, in consultation with a Faculty Advisor. Students should verify admission requirements of their medical school of interest to verify Advanced bioscience requirements.

+ See description of electives under the Department Electives Section