

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

*136 Credits*  
*2017 - 2018*

<b>Freshman Year:</b>					
ECE 111	Introduction to Engineering I	3	ECE 112	Introduction to Engineering II	2
ENG 105	English Composition I	3	ENG 107	English Composition II: Science and Technology	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
	HA Cognate <sup>4</sup>	3	PHY 208	University Physics II Lab	1
			CHM 111	Principles of Chemistry I	3
			CHM 113	Chemistry Laboratory I	1
<b>Total</b>			<b>Total</b>		
<b>17</b>			<b>17</b>		

<b>Sophomore Year:</b>					
ECE 201	Electrical Circuit Theory	3	ECE 118	Intro. To Programming	3
MTH 311	Ordinary Differential Equations	3	ECE 202	Electronics I	3
PHY 207	University Physics III	3	ECE 203	Electrical Circuits Lab	1
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
<b>Total</b>			<b>Total</b>		
<b>18</b>			<b>17</b>		

<b>Junior Year:</b>					
ECE 206	Circuits, Signals and Systems	3	ECE 212	Processors: Hardware, Software and Interfacing	3
ECE 211	Logic Design	3	ECE 315	Digital Design Laboratory	1
ECE 218	Data Structures	3	ECE 336	Discrete-Time Signals and Systems	3
ECE 302	Electronics II	3		Advanced Bioscience Elective <sup>2</sup>	3
ECE 303	Electronics Laboratory	1	MTH 210	Intro to Linear Algebra	3
CHM 202	Organic Chemistry II (Lecture)	3		PS Cognate <sup>4</sup>	3
CHM 206	Organic Chemistry Lab II	1			
<b>Total</b>			<b>Total</b>		
<b>17</b>			<b>16</b>		

<b>Senior Year:</b>					
ECE 310	Engineering Probability	3	ECE 482	Senior Project II	2
ECE 316	Structured Digital Design	1		EE Design Elective <sup>1</sup>	3
ECE 481	Senior Project I <sup>3</sup>	1		ECE Elective <sup>1</sup>	3
	EE Core Elective <sup>1</sup>	3		Technical Elective <sup>1</sup>	3
	EE Core Elective <sup>1</sup>	3		HA Cognate <sup>4</sup>	3
	HA Cognate <sup>4</sup>	3		PS Cognate <sup>4</sup>	3
	PS Cognate <sup>4</sup>	3			
<b>Total</b>			<b>Total</b>		
<b>17</b>			<b>17</b>		

<sup>1</sup> See Description of electives under the Departmental Elective Section

<sup>2</sup> 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.**

<sup>3</sup> Offered Only In Fall Semester

<sup>4</sup> Students in the Premed Option are encouraged to choose cognates that include PSY110 and SOC101.