

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

129 Credits
2015 - 2016

Freshman Year:					
ECE 111	Introduction to Engineering I	3	ECE 112	Introduction to Engineering II	2
ECE 118	Introduction To Programming	3	ECE 218	Data Structures	3
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
Total			Total		
14			15		

Sophomore Year:					
ECE 304	Logic Design	3	ECE 201	Electrical Circuit Theory	3
ECE 318	Advanced Computer Programming	3	ECE 312	Processors: Hardware, Software and Interfacing	4
MTH 210	Introduction to Linear Algebra	3	ECE 315	Digital Design Laboratory	1
PHY 206 or PHY 207	University Physics II or University Physics III	3	IEN/ECE 310	Engineering Probability	3
PHY 208 or PHY 209	University Physics Lab II or University Physics Lab III	1	MTH 309	Discrete Mathematics	3
	Humanities and Arts Cognate*	3		People and Society Cognate*	3
Total			Total		
16			17		

Junior Year:					
ECE 204	Electrical Circuits Lab	1	ECE 306	Electronics II	3
ECE 305	Electronics I	3	ECE 307	Circuits, Signals and Systems	3
ECE 316	Structured Digital Design	1	ECE 454	Digital Systems Design and Testing	2
MTH 311	Ordinary Differential Equations	3	ECE 455	Design for Testability Lab	1
	Basic Science Elective*	3	ECE 567	Database Design and Management	3
	Basic Science Elective Lab*	1		Basic Science Elective*	3
	Humanities and Arts Cognate*	3		People and Society Cognate*	3
Total			Total		
15			18		

Senior Year:					
ECE 311	Electronics Laboratory	1	ECE 419	Computer Engineering Senior Project	2
ECE 322	Systems Programming	3	ECE 521	Computer Operating Systems	3
ECE 414	Computer Organization & Design	3		Computer Engineering Technical Elective ⁺	3
ECE 417	Embedded Microprocessors System Design	3		Computer Engineering Technical Elective ⁺	3
ECE 418	Senior Project Planning**	1		Computer Engineering Technical Elective ⁺	3
	Computer Engineering Technical Elective ⁺	3		People and Society Cognate*	3
	Humanities and Arts Cognate*	3			
Total			Total		
17			17		

* Students must complete a minimum of 1 PS cognate and 1 HA cognate, to be selected from the list of available cognates. Each cognate should be a minimum of 3 courses (minimum of 9 credits).

⁺ See description of electives under the Department Electives in the UM Bulletin

[§] Offered only in the Fall Semester