

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

129 Credits
2017 - 2018

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 211	Logic Design	3	ECE 201	Electrical Circuit Theory	3
ECE 318	Algorithms	3	ECE 212	Processors: Hardware, Software and Interfacing	3
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 310 or ECE 310	Introduction to Engineering Probability	3
PHY 208 or PHY 209	University Physics Lab II or University Physics Lab III	1	MTH 309	Discrete Mathematics	3
	HA Cognate ¹	3		PS Cognate ¹	3
Total			Total		
16			16		

Junior Year:					
ECE 202	Electronics I	3	ECE 206	Circuits, Signals and Systems	3
ECE 203	Electrical Circuits Laboratory	1	ECE 302	Electronics II	3
ECE 316	Structured Digital Design	1	ECE 454	Digital Systems Design and Testing	3
MTH 311	Ordinary Differential Equations	3	ECE 455	Design for Testability Lab	1
	Basic Science Elective ²	3	ECE 467	Database Design and Management	3
	Basic Science Elective Lab ²	1		Basic Science Elective ²	3
	HA Cognate ¹	3		PS Cognate ¹	3
Total			Total		
15			19		

Senior Year:					
ECE 303	Electronics Laboratory	1	ECE 421	Computer Operating Systems	3
ECE 322	Systems Programming	3	ECE 482	Senior Project II	2
ECE 414	Computer Organization & Design	3		Computer Engineering Technical Elective ²	3
ECE 417	Embedded Microprocessors System Design	3		Computer Engineering Technical Elective ²	3
ECE 481	Senior Project I ³	1		Computer Engineering Technical Elective ²	3
	Computer Engineering Technical Elective ²	3		PS Cognate ¹	3
	HA Cognate ¹	3			
Total			Total		
17			17		

¹ Students must complete a minimum of 1 People and Society (PS) cognate and 1 Humanities and Arts (HA) cognate, to be selected from the list of available cognates.

² See description of electives under the Department Electives in the UM Bulletin

³ Offered only in the Fall Semester.

All ECE courses which are prerequisites for subsequent ECE courses require a grade of C- or better.
 All ECE courses at the 300 level or above must be taken at UM.