

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

129 Credits
2013 - 2014

| Freshman Year: | | | | | |
|-----------------------|-------------------------------|---|-----------|--------------------------------|---|
| EEN 111 | Introduction to Engineering I | 3 | EEN 112 | Introduction to Engineering II | 2 |
| EEN 118 | Introduction To Programming | 3 | EEN 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 | | | 14 | Total | |
| | | | | 15 | |

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

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

| Senior Year: | | | | | |
|----------------------|--|---|-----------|--|---|
| EEN 311 | Electronics Laboratory | 1 | EEN 419 | Computer Engineering Senior Project | 2 |
| EEN 322 | Systems Programming | 3 | EEN 514 | Computer Architecture | 3 |
| EEN 414 | Computer Organization & Design | 3 | EEN 521 | Computer Operating Systems | 3 |
| EEN 417 | Embedded Microprocessors System Design | 3 | | Computer Engineering Technical Elective ⁺ | 3 |
| EEN 418 [§] | Senior Project Planning | 1 | | Computer Engineering Technical Elective ⁺ | 3 |
| | Computer Engineering Technical Elective ⁺ | 3 | | People and Society Cognate (Adv. PS Elective)* | 3 |
| | Humanities and Arts Cognate (Adv. HA Elective)* | 3 | | | |
| Total | | | 17 | Total | |
| | | | | 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 Electrical and Computer Engineering Section in the UM Bulletin

[§] Offered only in the Fall Semester