

# SAMPLE FOUR-YEAR CURRICULUM

## B. S. - Engineering Physics with Computer Engineering Minor

### First Year

| <u>First Semester</u> |                     |     | <u>Second Semester</u> |                          |   |
|-----------------------|---------------------|-----|------------------------|--------------------------|---|
| PHY 181.F             | The Physical World  | 4   | PHY 182.F              | The Physical World       | 4 |
| PHY 183               | Physics Laboratory  | 1   | PHY 184                | Physics Laboratory       | 1 |
| MTH 151 or 153        | Calculus I          | 4-5 | MTH 251                | Calculus II              | 4 |
| Foreign Lang          |                     | 4   | Foreign Lang           |                          | 3 |
| ENG 111               | College Composition | 3   | ENG 112                | Composition & Literature | 3 |
| 16-17                 |                     |     | 15                     |                          |   |

### Second Year

| <u>First Semester</u> |                                 |   | <u>Second Semester</u> |                                |   |
|-----------------------|---------------------------------|---|------------------------|--------------------------------|---|
| PHY 291               | Contemporary Physics            | 4 | PHY 292                | Electronic Instrumentation     | 3 |
| PHY 293               | Contemporary Physics Laboratory | 2 | PHY 294                | Electronic Instrumentation Lab | 2 |
| MTH 252               | Calculus III                    | 4 | PHY 286                | Computational Physics          | 3 |
| MTH 222               | Linear Algebra                  | 3 | MTH 347                | Differential Equations         | 3 |
| Foreign Lang          |                                 | 3 | Miami Plan Foundation  |                                | 3 |
|                       |                                 |   | Elective               |                                | 3 |
| 16                    |                                 |   | 17                     |                                |   |

### Third Year

| <u>First Semester</u> |  |   | <u>Second Semester</u> |                             |   |
|-----------------------|--|---|------------------------|-----------------------------|---|
| PHY 341               | Mathematical Methods in Physics                    | 4 | PHY 400                | Seminar                     | 1 |
| PHY 400               | Seminar  | 1 | CSA 271                | Object-Oriented Programming | 3 |
| CSA 174               | Fundamentals of Programming<br>and Problem Solving | 3 | Miami Plan Foundation  |                             | 3 |
| Miami Plan Foundation |  | 3 | Miami Plan Foundation  |                             | 3 |
| Miami Plan Foundation |  | 3 | ECE elective for minor |                             | 3 |
| Elective              |  | 3 | Elective               |                             | 3 |
| 17                    |  |   | 16                     |                             |   |

### Fourth Year

| <u>First Semester</u> |                        |   | <u>Second Semester</u> |                         |   |
|-----------------------|------------------------|---|------------------------|-------------------------|---|
| PHY 400               | Seminar                | 1 | PHY 400                | Seminar                 | 1 |
| CSA/ECE 278           | Computer Architecture  | 3 | ECE 387                | Embedded Systems Design | 4 |
| ECE 287               | Digital Systems Design | 4 | Capstone               |                         | 3 |
| Miami Plan Foundation |                        | 3 | ECE elective for minor |                         | 3 |
| Miami Plan Foundation |                        | 3 | Electives              |                         | 6 |
| Elective              |                        | 3 |                        |                         |   |
| 17                    |                        |   | 17                     |                         |   |

Note that the Thematic Sequence requirement is satisfied by MTH 222, 252, and 347 or by the minor in computer engineering.