

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING
SUGGESTED FOUR-YEAR COURSE SEQUENCE 2009-2010**

FIRST YEAR

| <i>First Semester</i> | | | | <i>Second Semester</i> | | | |
|------------------------------|---------|--------------------------------|----|-------------------------------|---------|-----------------------------|----|
| ENGL | 102 | College Writing/Rhetoric | 3 | ECE | 101 (S) | Foundations of ECE | 2 |
| MATH | 170 | Analytic Geometry & Calculus I | 4 | MATH | 175 | Analytic Geom & Calculus II | 4 |
| CS | 120 | Computer Science I | 4 | MATH | 176 | Discrete Mathematics | 3 |
| CORE | 103-118 | Core Discovery | 4 | PHYS | 211 | Engineering Physics & Lab | 4 |
| | | | 15 | CORE | 153-168 | Core Discovery | 3 |
| | | | | | | | 16 |

SECOND YEAR

| <i>First Semester</i> | | | | <i>Second Semester</i> | | | |
|------------------------------|-----|------------------------------|----|-------------------------------|-----|-------------------------|----|
| CS | 121 | Computer Science II | 4 | CS | 150 | Comp Org & Architecture | 3 |
| ECE | 210 | Circuits I | 3 | ECE | 212 | Circuits II | 3 |
| ECE | 211 | Circuits I Lab | 1 | ECE | 213 | Circuits II Lab | 1 |
| MATH | 310 | Differential Equations | 3 | ECE | 240 | Digital Logic | 3 |
| PHYS | 212 | Engineering Physics II & Lab | 4 | ECE | 241 | Digital Logic Lab | 1 |
| COMM | 101 | Fund of Public Speaking | 2 | ECE | 292 | Sophomore Seminar | 0 |
| | | | 17 | MATH | 330 | Linear Algebra | 3 |
| | | | | HS | | (Economics Elective) | 3 |
| | | | | | | | 17 |

THIRD YEAR

| <i>First Semester</i> | | | | <i>Second Semester</i> | | | |
|------------------------------|-----|--------------------------|----|-------------------------------|---------|-----------------------------|----|
| CS | 270 | System Software | 3 | CS | 240 | Computer Operating Systems | 3 |
| CS | 210 | Programming Languages | 3 | ECE | 350 | Signals & Systems | 3 |
| ECE | 310 | Fund of Electronics | 3 | ECE | 351 | Signals & Sys Lab | 1 |
| ECE | 311 | Fund of Electronics Lab | 1 | ECE | 440 (S) | Digital Systems Engineering | 3 |
| ECE | 340 | Microcontrollers | 3 | ENGL | 317 | Technical Writing | 3 |
| ECE | 341 | Microcontrollers Lab | 1 | SE | | (Science Elective) | 4 |
| STAT | 301 | Probability & Statistics | 3 | | | | 17 |
| | | | 17 | | | | |

FOURTH YEAR

| <i>First Semester</i> | | | | <i>Second Semester</i> | | | |
|------------------------------|---------|---------------------------|----|-------------------------------|-----|----------------------------|----|
| ECE | 482 | Comp Engr Senior Design I | 3 | ECE | 483 | Comp Engr Senior Design II | 3 |
| ECE | 491 (F) | Senior Seminar | 0 | HS | | (Cluster Elective) | 3 |
| HS | | (AMST 301 or PHIL 103) | 3 | TE | | (Technical Elective) | 3 |
| HS/INT | | (International Elective) | 3 | TE | | (Technical Elective) | 3 |
| TE | | (Technical Elective) | 3 | TE | | (Technical Elective) | 3 |
| TE | | (Technical Elective) | 3 | | | | 15 |
| | | | 15 | | | | |

TOTAL CREDITS = 129

Specific grades required for continuation; see catalog.

HS - Humanities/Social Science Electives: must include AMST 301 or PHIL 103 and ECON 201, 202, or 272.

INT-One approved international course: the list is found in the UI catalog.

TE --Technical Elective: fifteen credits of upper division ECE or CS courses

SE -- Science Elective: one of the following CHEM 111, GEOL 111, MMBB 154 and 155, or PHYS 213.

CORE – Students are encouraged to complete a two-semester Core Discovery sequence. (E.g. CORE 113 and 163).

Students majoring in Computer Engineering may accumulate no more than 14 credits of D's and F's in mathematics, science, or engineering courses that are used to satisfy graduation requirements, including repeats and transfer courses. **See catalog for complete degree requirements and additional information.**

Cooperative educational experiences are available through the Cooperative Education Office to give the student industrial experience in their chosen field. Academic credit may be earned but may not be used as part of the program of study.

Courses offered only during a semester are identified above with a letter in parentheses by the course number: "S" refers to spring only courses and "F" to fall only courses.