### Department of Electrical Engineering and Computer Science
#### Computer Science Catalog 2012

| Fall | 15-16 hours | CS 102 (4) FA, SP  
| Restriction: Students may not receive credit for both ECE 206 and Computer Science 102. | Math 141 or 147 (4) FA, SP, SU  
| Prereq: Math 130 or Math ACT 28 or Math SAT 680 | Physics 135 or 137 (4-5) FA  
| Coreq: Math 141 or 147 | English 191 or 118 (3) FA, SP, SU |

| Spring | 15-16 hours | CS 140 (4) FA, SP  
| Prereq: CS 102 | Math 142 or 148 (4) FA, SP, SU  
| Prereq: Math 141 or 147 | Physics 136 or 138 (4-5) SP  
| Prereq: Math 142 or 148 | English 102 (3) FA, SP, SU |

| Fall | 14-15 hours | CS 160 (4) FA, SP  
| Prereq: CS 102 | Math 241 or 247 (4) FA, SP, SU  
| Prereq: Math 142 or 148 | Biology 101 FA, SU or 130 FA, SP, SU or  
| Chemistry 100 FA, SP or 120 FA, SP, SU or Physics 231 FA, SP, SU |

| Spring | 13 hours | CS 302 (4) FA, SP  
| Prereq: CS 140 | Math 251 or 257 (3) FA, SP, SU  
| Prereq: Math 142 or 148 | Gen. Ed. (3) FA, SP, SU |

| Fall | 16 hours | CS 360 (4) FA, SP  
| Prereq: CS 160 and 302 | ECE 313 (3) FA, SP  
| Prereq: Math 142 or 148 | CS Upper Division Elective** (3) FA, SP, SU  
| Gen. Ed. (3) FA, SP, SU |

| Spring | 15 hours | CS 361 (3)  
| Prereq: CS 302 | CS Upper Division Elective** (3) FA, SP, SU  
| Gen. Ed. (3) FA, SP, SU |

| Fall | 15 hours | CS Upper Division Elective **(3) FA, SP, SU  
| CS Upper Division Elective **(3) FA, SP, SU | CS Upper Division Elective **(3) FA, SP, SU  
| CS Upper Division Elective **(3) FA, SP, SU | English 355 or 360 (WC) (3) FA, SP, SU  
| Gen. Ed. (3) FA, SP, SU |

| Spring | 14 hours | CS 400 (5) SP (QC)  
| Prereq: CS 360 | English 355 or 360 (WC) (3) FA, SP, SU  
| For ENGL 102 or 118 | Gen. Ed. (3) FA, SP, SU |

| Arts and Humanities |

#### The following list shows an acceptable set of electives that may be taken to satisfy the upper division electives for the CS major. The electives have been grouped into 6 suggested tracks. The tracks group related electives that a student may wish to take in order to achieve a level of expertise in the indicated area. However, it is not mandatory to take any track and students are free to mix and match courses from different tracks to fit their specific interests:

- **Theory**: CS 440, 482; Systems: CS 456, 462, ECE 453, 454; Software: CS 340, 461, 465; Hardware: ECE 451, 455; Scientific Computing: CS 370, 471, 472; Math 231; Artificial Intelligence: CS 420, 425, ECE 471

#### Progression

The department requires at least a C in every computer engineering, computer science, electrical engineering, and mathematics course used for the undergraduate degrees.

Progression of departmental undergraduate students to the upper-division programs of the department is competitive and is based on the space available in the department. Factors considered in the decision include overall grade point average, grades earned in courses required in the lower division curricula of the department and College of Engineering, and seriousness of purpose and interest in departmental programs as exemplified by regular and orderly progress through the prescribed curriculum without abuse of withdrawal and course repeat privileges.

Students also have opportunities for an Honors Concentration and/or a five year BS/MS program. See the Undergraduate Catalog for details and requirements.