**Department of Mathematics and Computer Science Checklist of Requirements**
**For Students Declaring Their Major Fall 2012 or Later**. 05/12/2012

# B.S in Computer Science

## Computer Science Courses

| Class | Hrs |
|---|---|
| CSC 110 Survey of Computer Science | 1 |
| CSC 150 Computer Science 1 | 3 |
| CSC 250 Computer Science 2 | 4 |
| CSC 251 Finite Structures | 4 |
| CSC 300 Data Structures | 4 |
| CSC 314 Assembly Language | 3 |
| CSC 317 Computer Org & Arch | 3 |
| CSC 372 Analysis of Algorithms | 3 |
| CSC 421 Graphical User Interfaces | 3 |
| CSC 456 Operating Systems | 4 |
| CSC 461 Programming Languages | 3 |
| CSC 465 Senior Design I | 2 |
| CSC 467 Senior Design II | 2 |
| CSC 470 Software Engineering | 3 |
| CSC 484 Database Management | 3 |
| Upper Level CSC Elective * | 3 |
| Upper Level CSC Elective * | 3 |
| Upper Level CSC Elective * | 3 |
| Upper Level CSC Elective * | 3 |
| Total (minimum) | 57 credits |

***** A minimum of four (4) computer science elective courses numbered 400 or above must be taken. A three (3)-credit Co-op may be substituted for one computer science elective. Special topics and independent study courses may not be used to satisfy the computer science elective requirement.

## Science Courses

| Class | Hrs |
|---|---|
| PHYS 211 University Physics I | 3 |
| Science Requirement ** | 3 |
| Science Requirement ** | 3 |
| Science Lab ** | 1 |
| Science Lab ** | 1 |
| Total | 11 credits |

** See list at the end of the next column for details on the science requirement.

## Mathematics Courses

| Class | Hrs |
|---|---|
| MATH 123 Calculus 1 | 4 |
| MATH 125 Calculus 2 | 4 |
| MATH 225 Calculus 3 | 4 |
| MATH 315 Linear Algebra | 3 |
| MATH 381 Intro to Prob & Stats | 3 |
| MATH Elective + | 3 |
| Total | 21 credits |

+ At least three credits of a math lecture course that is at the 300 or 400 level course except Math 373 or Math 486

## Arts/Humanities & Social Sciences***

(*General Education requirement is 12 credits*)

| | |
|---|---|
| ENGL 101 Composition I | 3 |
| ENGL 279 Tech Comm I | 3 |
| ENGL 289 Tech Comm II | 3 |
| Social Sciences | 3 |
| Social Sciences | 3 |
| Arts / Hum | 3 |
| Arts / Hum | 3 |
| Additional Hum/SS course | 3 |
| Free Elective Credit # | 7 |
| Total | 31 credits |

** Students must take three science courses with two accompanying labs. These courses must be selected from at least two different disciplines, and one science course must be PHYS 211. List of Science courses for the science requirement: PHYS 213, CHEM 112, CHEM 114, BIOL 151, BIOL 153, BIOL 121, BIOL 123, BIOL 231, and GEOL 201.

***All majors must complete a minimum of 15 credits in the area of Humanities & Social Sciences

# All majors must complete a minimum of 120 total credits. Please note that MATH 021, MATH 101, MATH 102, MATH 120, CSC 105, PHYS 111, PHYS 113, CHEM 106, and CHEM 108 will not count toward the major.

***Student Name:***

# Computer Science

**Latest Revision: May 11, 2012**

| Freshman | Sophomore | Junior | Senior |
|---|---|---|---|
| ENGL 101 (3) | ENGL 279 (3) | ENGL 289 (3) | MATH elective (3) |
| MATH 123 (4, C) | MATH 125 (4, C) | MATH 225 (4) | MATH 315 (3) |
| Co-req Math 123 | CSC 150 (3, C) | CSC 251 (4) | CSC 250 (4, C) |
| CSC 110 (1) | | CSC 300 (4) * | CSC 314 (3) |
| Pre-req of Math 123 | PHYS 211 (3) | | |
| Sci Elect (3) | Sci Elect (3) | Elect (3) | Elect (4) |
| Sci Lab (1) | Sci Lab (1) | CSC Elect (3) | CSC Elect (3) |
| Hum/ SS (3) | Hum/ SS (3) | Hum/ SS (3) | Hum/ SS (3) |

| | | | |
|---|---|---|---|
| | MATH 381 (3) | CSC 372 (3, F) | CSC 421 (3, F) |
| | | CSC 461 (3, S) | CSC 484 (3, F) |
| | | CSC 470 (3, S) | CSC 465 (2, F) |
| | | CSC 317 (3, S) | CSC 456 (4, S) |
| | | | CSC 467 (2, S) |
| | | | CSC Elect (6) |

**Entry Level Courses**

Math: _____

Placement Exam:
Trig: _____
Algebra: _____

**Legend**

Prerequisite → **Course ###** (Credit Hours; Grade Required (if applicable); When Offered)

Completed or Concurrent

When Offered:
F = Fall Semester
S = Spring Semester
O = Odd Number Years
E = Even Number Years
(blank) = Every Semester

* any CSC core class that has CSC 300 as a prerequisite also requires a C or better in CSC 300

**Spare block**

**CS Electives**

(4 courses are required)

| | |
|---|---|
| CSC 300 → | CSC 410 (3, SO) |
| CSC 300 → MATH 413 | CSC 412 (3) |
| CSC 300 → Math 321 | CSC 415 (3, F) |
| CSC 415 → | CSC 416 (3) |
| CSC 300 → Math 225 | CSC 433 (3, FE) |
| CSC 251 → | CSC 445 (3, SO) |
| CSC 300 → | CSC 447 (3, FO) |
| CSC 300 → Math 381 | CSC 449 (3, FE) |
| CSC 300 → Math 125 | CSC 464 (3, SO) |
| Ceng 244 → MATH 381 | CENG 444 (4) |

**CO-OP** (3)