## Department of Mathematics and Computer Science Checklist of Requirements For Students Declaring Their Major Fall 2015 or Later. 07/23/2015

# **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 456 Operating Systems                      | 4          |  |
| CSC 461 Programming Languages                  | 4          |  |
| CSC 464 Senior Design I                        | 2          |  |
| CSC 465 Senior Design II                       | 2          |  |
| CSC 468 Graphical User Interface Programming 3 |            |  |
| 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)                                | 58 credits |  |

<sup>\*</sup> The program requires at least four classes (a minimum total of at least twelve credits) completed from the following list: CSC410, CSC412, CSC414, CSC415, CSC426, CSC433, CSC441, CSC442, CSC445, CSC447, CSC449, CSC476/476L, and CENG444. Completion of CP497 offering of at least three credits can be used to substitute for at most three credits of this requirement.

#### **Science Courses**

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

<sup>\*\*</sup> 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 & S | Stats 3         |
| MATH Elective +            | 3               |
| T                          | otal 21 credits |

+ At least three credits of a math lecture course that is from the following list: Math 321, Math 382, Math 353, Math 413, Math 421, Math 423, or Math 443.

#### 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 I    | [     | 3          |
| Social Sciences         |       | 3          |
| Social Sciences         |       | 3          |
| Arts / Hum              |       | 3          |
| Arts / Hum              |       | 3          |
| Additional Hum/SS cours | e     | 3          |
| Free Elective Credit #  |       | 6          |
|                         | Total | 30 credits |

<sup>\*\*</sup> 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, and GEOL 201.

<sup>\*\*\*</sup>All majors must complete a minimum of 15 credits in the area of Humanities & Social Sciences

<sup>#</sup> 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.

