COMPUTER SCIENCE MAJOR 2014-2015

This checklist is for reference only. Please see the College Catalog and check with your major adviser or department chair to assure compliance with graduation requirements.

Note: Pre-requisites in parentheses

<table>
<thead>
<tr>
<th>Sem. Taken</th>
<th>Cr. Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I. Required Courses (28 credits):

- COSC 120  Introduction to Computer Science I
- COSC 130  Introduction to Computer Science II (COSC 120)
- MATH 151  Calculus I
- or
- MATH 200  Discrete Mathematics
- MATH 281  Foundation of Mathematics (MATH 152)
- COSC 201  Algorithms and Data Structures (COSC 130)
- COSC 230  Computer Architecture (COSC 130, MATH 200)
- COSC 251  Programming Languages (MATH 200/281 and COSC 201)

II. Elective Courses (20 semester-hours)

- Five 4-credit classes:
  - Course 1:
  - Course 2:
  - Course 3:
  - Course 4:
  - Course 5:

Courses selected from the following:

- COSC 301  Software Engineering I (COSC 201)
- COSC 335  Operating Systems (COSC 230)
- COSC 336  Computer Networks (COSC 230)
- COSC 338  Computer Graphics (COSC 201 and MATH 152)
- COSC 370  Artificial Intelligence (COSC 201 and MATH 200 or MATH 281)
- COSC 420  Distributed and Parallel Computing (COSC 201)
- COSC 438  Game Design and Development (COSC 201, MATH 200 or MATH 281)
- COSC 440  Theory of Computation (COSC 201 and MATH 200 or MATH 281)
- COSC 445  Design and Analysis of Algorithms (COSC 201, MATH 200 or MATH 281)
- COSC 450  Database Management Systems (COSC 130, MATH 200 or MATH 281)
- COSC 455  Graph Theory (COSC 201, MATH 200 or MATH 281)
- COSC 480  Topics in Computer Science (COSC 130)

III. Capstone Experience (8 semester-hours) Choose one of the following three options:

a. St. Mary’s Project (may be in an area other than COSC, with the approval of the department)
   - COSC 493  St. Mary’s Project
   - COSC 494  St. Mary’s Project

b. One 400-level computer science course**
   - Course 1:
   - COSC 495  Senior Project in Computer Science
   - or

- St. Mary’s Project

- One 400-level computer science course**
  - Course 1:
  - Course 2:

** Excluding COSC499 and courses counted as elective courses.