Major Requirements - B.S. in Applied Computer Science
(for students who completed CPSC 220 Fall 2010 or earlier and plan to graduate after 8/2012)

<table>
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<tr>
<th>Done</th>
<th>Need</th>
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**Suggested First Year Courses:**

**EITHER**

- MATH 118* DIFFERENTIAL CALCULUS
- **AND**
- MATH 119* INTEGRAL CALCULUS

**OR**

- MATH 121* CALCULUS I
- MATH 122 CALCULUS II *
- CPSC 120 FUNDAMENTALS OF COMPUTER SCIENCE I (*)
- CPSC 170 FUNDAMENTALS OF COMPUTER SCIENCE II
- MATH 131 DISCRETE MATHEMATICS

**Suggested Sophomore Year Courses:**

- CPSC 220 FUNDAMENTALS OF COMPUTER SCIENCE III
- CPSC 290 COMPUTER ARCHITECTURE & OPERATING SYSTEMS ****
- STAT 202 PROBABILITY

**Suggested Junior/Senior Year Courses:**

- CPSC 340 ** DATABASE SYSTEMS
- CPSC 365 *** SOFTWARE ENGINEERING & PROJECT DESIGN
- CPSC 415 *** WEB PROGRAMMING
- ELECTIVE ****
- ELECTIVE ****
- ELECTIVE ****

**Senior Year Course:**

- CPSC 446 or 445 & 447 SENIOR PROJECT

**Elective Choices Per Major:**

- CPSC 301/302 SYSTEMS ADMINISTRATION 1 AND 2 (Offered every year)
- CPSC 310 TOPICS IN APPLIED COMPUTING
- CPSC 350 HUMAN COMPUTER INTERACTION
- CPSC 360 NETWORKS
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CPSC 390</td>
<td>THEORY OF COMPUTATION</td>
</tr>
<tr>
<td>CPSC 395</td>
<td>ANALYSIS OF ALGORITHMS</td>
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<tr>
<td>CPSC 342</td>
<td>NUMERICAL ANALYSIS</td>
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<tr>
<td>CPSC 405</td>
<td>INDEPENDENT STUDY AND RESEARCH (1/2 unit)</td>
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<tr>
<td>CPSC 406</td>
<td>INDEPENDENT STUDY AND RESEARCH (1 unit)</td>
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<tr>
<td>CPSC 407</td>
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<tr>
<td>CPSC 416</td>
<td>INTERNSHIP</td>
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<tr>
<td>CPSC 425</td>
<td>** Principles of Programming Languages</td>
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</tbody>
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* CPSC 120, MATH 118 and 119, or 121, and MATH 122 are not explicitly required for the major but are prerequisites for all required courses in the major. Students should consult a computer science faculty member about the need to take these courses.

** Taught in 2011/2012 and alternate years: take either junior or senior year depending upon when offered.

*** Taught in 2012/2013 and alternate years: take either junior or senior year depending upon when offered.

**** Three elective units are required. Elective courses are taught on a rotation basis, not every year.

***** An independent study in C++ is recommended in Fall 2011 for those who did not take CPSC 270.