

## B.S. in Computer Science Curriculum

### 2010/2011-2011/2012 Academic Year

### Computer Science Bachelor of Science

#### Freshman Year

##### First Semester

4 – CP SC 101 Computer Science I  
 3 – ENGL 103 Accelerated Composition  
 4 – MTHSC 106 Calculus of One Variable I  
 4 – Natural Science Requirement<sup>1</sup>

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##### Second Semester

4 – CP SC 102 Computer Science II  
 4 – MTHSC 108 Calculus of One Variable II  
 3 – Arts and Humanities (Non-Lit) Requirement<sup>1</sup>  
 4 – Natural Science Requirement<sup>1</sup>

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#### Sophomore Year

##### First Semester

3 – CP SC 207 Discrete Structures for Computing  
 4 – CP SC 212 Algorithms and Data Structures  
 3 – Arts and Humanities (Literature) Requirement<sup>2</sup>  
 3 – Natural Science Requirement<sup>1</sup>  
 3 – Oral Communications Requirement<sup>2</sup>

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##### Second Semester

3 – CP SC 215 Software Development Foundations  
 4 – CP SC 231 Intro. to Computer Organization  
 1 – CP SC 291 Seminar in Professional Issues I  
 3 – Probability and Statistics Requirement<sup>3</sup>  
 3 – Natural Science Requirement<sup>1</sup>  
 2 – Elective

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#### Junior Year

##### First Semester

3 – CP SC 330 Computer Systems Organization  
 3 – CP SC 360 Networks & Network Programming  
 3 – CP SC 372 Intro. to Software Engineering  
 3 – MTHSC 311 Linear Algebra  
 3 – Social Science Requirement<sup>2</sup>

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##### Second Semester

3 – CP SC 322 Intro. to Operating Systems  
 3 – CP SC 350 Foundations of Computer Science  
 3 – CP SC 362 Distributed and Cluster Computing  
 3 – Social Science Requirement<sup>2</sup>  
 3 – Arts and Humanities Requirement<sup>4</sup> *or*  
     3 – Social Science Requirement<sup>4</sup>

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#### Senior Year

##### First Semester

3 – CP SC 352 Programming Languages  
 3 – Writing Requirement<sup>6</sup>  
 6 – Computer Science Requirement<sup>5</sup>  
 3 – Elective

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##### Second Semester

3 – CP SC 491 Seminar in Prof. Issues II  
 3 – Arts and Humanities Requirement<sup>4</sup> *or*  
     3 – Social Science Requirement<sup>4</sup>  
 6 – Computer Science Requirement<sup>5</sup>  
 3 – Elective

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122 Total Semester Hours

<sup>1</sup>Two semester sequence in the same physical or biological science, each including lab, is required. Select from BIOL 103/105, 104/106; 110, 111; CH 101, 102; GEOL 101/103 and 102 or 112/114; PHYS 122/124, 221/223. The six remaining hours may be selected from BIOL, BIOCH, BIOSC, CH, GEOL, MICRO, PHYS; or EN SP 200.

<sup>2</sup>See General Education Requirements.

<sup>3</sup>Select from courses in MTHSC 301, 302 or 309.

<sup>4</sup>Select from courses in A A H, ANTH, ART, CHIN, COMM, DANCE, E A S, ECON, ENGL, FR, GEOG, GER, HIST, HUM, ITAL, JAPN, MUSIC, P A, P A S, PHIL, PO SC, PSYCH, REL, RUSS, SOC, SPAN, THEA, W S.

<sup>5</sup>Select from 300-level or higher CP SC courses. No more than six credits of CpSc 481 may be applied to this requirement. Up to three credits of approved 300-level or higher MTHSC or ECE courses may be substituted.

<sup>6</sup>Select from School-approved list.

##### Notes:

1. For graduation, a candidate for the BS degree in Computer Science must have earned a grade of C or better in each CP SC designated course applied to the degree.
2. A grade of C or better must be earned in all prerequisite courses (including CP SC and MTHSC courses) before enrolling in the next CP SC course.