

# COMPUTER SCIENCE, B.SC. MAJOR

## Degree Requirements

### Four Year Major (Including Co-operative Option if Selected)<sup>1,2,3</sup>

Course	Title	Hours
<b>Year 1</b>		
COMP 1010	Introductory Computer Science 1 <sup>4</sup>	3
COMP 1020	Introductory Computer Science 2 (C+)	3
MATH 1240	Elementary Discrete Mathematics (C+) <sup>4</sup>	3
MATH 1300	Vector Geometry and Linear Algebra (C+) <sup>4</sup>	3
MATH 1500	Introduction to Calculus <sup>4</sup>	3
MATH 1700	Calculus 2 <sup>4</sup>	3
<b>Hours</b>		<b>18</b>
<b>Years 1-2</b>		
STAT 1150	Introduction to Statistics and Computing <sup>4</sup>	3
6 credit hours from the Faculty of Arts, which should include the required 3 credit hour "W" course		6
18 credit hours of electives <sup>2,3</sup>		18
<b>Hours</b>		<b>27</b>
<b>Year 2</b>		
COMP 2080	Analysis of Algorithms	3
COMP 2140	Data Structures and Algorithms	3
COMP 2150	Object Orientation	3
COMP 2160	Programming Practices	3
COMP 2280	Introduction to Computer Systems	3
<b>Hours</b>		<b>15</b>
<b>Year 3</b>		
COMP 3350	Software Engineering 1	3
One of:		3
COMP 3010	Distributed Computing	
COMP 3430	Operating Systems	
6 credit hours of 3000 level Computer Science <sup>5</sup>		6
<b>Hours</b>		<b>12</b>
<b>Years 3-4</b>		
6 credit hours of 3000 or 4000 level Computer Science		6
33 credit hours of electives <sup>2</sup>		33
<b>Co-op Requirements (if selected):<sup>1</sup></b>		
SCI 3980	Co-operative Education Work Term 1	0
SCI 3990	Co-operative Education Work Term 2	0
SCI 4980	Co-operative Education Work Term 3	0
SCI 4990	Co-operative Education Work Term 4 (if a 4th work term is selected)	0
<b>Hours</b>		<b>39</b>
<b>Year 4</b>		
COMP 4620	Professional Practice in Computer Science	3
6 credit hours of 4000 level Computer Science		6
<b>Hours</b>		<b>9</b>
<b>Total Hours</b>		<b>120</b>

<sup>1</sup> Entry to the four-year Major Co-operative Option is at the end of second year. Employment terms follow 3A (September-December), 3B (May-August) and 4A (January-April). Students in the Co-operative Option must complete three employment terms and receive a passing grade in SCI 3980, SCI 3990, SCI 4980, and SCI 4990 (if selected) prior to the last academic term. Students in the Co-operative Option are required to complete COMP 3380 before their first work term.

<sup>2</sup> Additional information on how students may select their courses can be found in the program Overview (p. ).

<sup>3</sup> IMPORTANT: The program grid above is intended to provide students with the recommended order in which to satisfy degree requirements. Students in the Co-operative Option should be aware that while other arrangements are possible, they may jeopardize their chances of obtaining employment by selecting such arrangements. Students should discuss their planned sequence of courses with the department prior to making adjustments to the sequence above.

- <sup>4</sup>
- COMP 1012 may be taken in place of COMP 1010;
  - STAT 1000 and STAT 2000 (B) may be taken in place of STAT 1150;
  - MATH 1230 or MATH 1510 may be taken in place of MATH 1500;
  - MATH 1220 or MATH 1210 (B) may be taken in place of MATH 1300;
  - MATH 1232 or MATH 1710 may be taken in place of MATH 1700.
  - Students who have previously completed COMP 2130 may use it in lieu of MATH 1240.

<sup>5</sup> Students in the Co-operative Option must complete COMP 3380, as part of these 6 credit hours, prior to their first co-op work term.

(Letters in brackets indicate minimum prerequisite standing for further study.)