

B.Sc. Double Honours Computer Science - Major 1

Students are reminded that admission to honours is by [application to the College](#), after completing second-year (CMPT215, 215, 260, 270, and 280) with a 70% CWA overall and in CMPT courses. Admission to CMPT400 will be refused to students who are not admitted to honours.

C1. College Requirement (15cu)

	6cu from English Language Writing		Y1
			Y1
	Indigenous Learning		
MATH 163	Mathematical Reasoning	Quantitative Reasoning	Y1
MATH 164 (or 266)	Linear Algebra		Y1

C2. Breadth Requirement (9cu)

	3cu from Humanities or Social Science		
	6cu from Fine Arts, Humanities, Social Science, or Interdisciplinary Studies		

Refer to the [programme description](#) for the full list of courses that fulfill C1 and C2 requirements.

C3. Cognate Requirement (12cu)

	9 cu from Junior*		
MATH 110 (or 133 or 176)	Calculus		Y1

Junior: Biology: BIOL 120, 121; **Chemistry:** CHEM 112, 115, 250;
Earth Sciences: GEOG 120, GEOL 121, 122;
Physics&Astronomy : ASTR 113; PHYS 115, 117 or 125.

No more than 6 credit units from one subject may be used in C1, C2, and C3 Junior.

C5. Open Electives Requirement (0–6cu)

	Arts and Science courses, or other approved courses, to complete 120 credit unit Double Honours program; at least 66 must be at the 200-level or higher.		

C4. Major 1 (42cu)

CMPT 141 (or 116)	Introduction to Computer Science	Y1
CMPT 145 (or 117)	Principles of Computer Science	Y1
CMPT 214	Programming Principles and Practice	Y2
CMPT 215 (or CME 331)	Computer Organization and Architecture	Y2
CMPT 260	Mathematical Logic and Computing	Y2
CMPT 270	Developing Object Oriented Systems	Y2
CMPT 280	Intermediate Data Structures and Algorithms	Y2
CMPT 360	Machines and Algorithms	Y3
CMPT 364	Automata and Formal Languages	Y3
CMPT 400	Honours Thesis (must apply to register)	Y4
CMPT		Y3
CMPT	9cu from: 317, 332, 340, 353, 370, 381	Y3
CMPT		Y3
CMPT	3cu from CMPT 410 or higher	Y4

C5. Electives in Major 2 (36–42cu)

	The prerequisite structure of courses in C4 of this programme assumes 9 credit units of Math or Stats, 6 credit units of which are required in C1 . Students wishing to combine this program with another double honours program will need at least 3 additional credit units in Math or Stats (STAT 245 recommended).	
	Students wishing to combine this program with a Double Honours—Major 2 in a Type C program that requires additional Math or Stats beyond those stated in C4 will be able to meet all prerequisites of courses in C4 of this program. However, students in specializations with minimal math requirements may not be able to meet the prerequisites for courses in C4 without taking additional Math or Stats. For these students, we recommend STAT 242 or 245.	

For further details, please see the [Academic Information & Policies](#) in the Arts and Science section of the Calendar.