B.Sc. Honours Computer Science - Software Engineering Option

C1. College Requirement (15cu)

			Y1
	6cu from **English Language Writing**		Y1
	Indigenous Learning		
MATH 110 (*or* 176)	Calculus I	**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 (18cu)

	9 cu from **Junior***		
MATH	6 cu from Mathematics List	9 cu **Senior**	
MATH			
STAT 242 (*or* 245)	*Statistics**		Y2

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.

Statistics Note: Engineering students may use EE 216 or ME 251.
Also consult Statistics Course Regulations in the College policies.

Mathematics List: **Mathematics:** MATH 112 or 116, 211, 223, 225, 276, 327, 328, MATH 361 and MATH 362, MATH 364;
Statistics: STAT 241, 344, 345, 348;
Philosophy: PHIL 243.

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

C4. Majors Requirement (54cu)

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	Y2
PHIL 232	Ethics … in Computer Science	Y2
CMPT 332	Operating Systems Concepts	Y3/4
CMPT 340	Programming Language Paradigms	Y3/4
CMPT 353	Full-Stack Web Programming	Y3/4
CMPT 360	Machines and Algorithms	Y3/4
CMPT 370	Intermediate Software Engineering	Y3/4
CMPT 371	Software Management	Y3/4
CMPT 470	Advanced Software Engineering	Y3/4
CMPT 481	Human Computer Interaction	Y3/4
	CSPIP *and 6cu from Senior CMPT*, or CMPT405 *and 3cu from Senior CMPT**	

Senior CMPT: **Computer Science**: 300- or 400- CMPT **Bioinformatics:** BINF 300
Computer Engineering: CME 332, 341, 342, 433, 435, 451

C5. Electives Requirement (24cu)

	*Business Science**	
	Courses to complete the requirements for 120cu Four-year program, of which at least 66 must be at the 200-level or higher.	

Business Science Note: If ECON 111 or 114 is used to meet C2, the slot becomes a free elective.
Otherwise, the slot is a Business Science Requirement from the following list:
Commerce: COMM 102, 105, 201, 203, 204, 205, 210, 304;
Economics: ECON 111, 114;
Agricultural Economics: AREC 230;
Entrepreneurial Ventures: ENT 210, 220, 230.

2020/07/04