# B.Sc. Four-year Computer Science

## C1. College Requirement (15cu)

	6cu from English Language Writing	Y1 Y1
	Indigenous Learning	
MATH 163	Mathematical Reasoning	Y1
MATH 164	Linear Algebra 1 Quantitative Reasoning	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 <b>Junior</b>		
PHIL 232 (or GE 449)	Ethics in Computer Science	Ethics	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.

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

#### 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** If ECON 111 or 114 is used to meet C2, the slot becomes a free elective. **Science** Otherwise, the slot is a Business Science Requirement from the following list:

**Note:** Commerce: COMM 102, 105, 201, 203, 204, 205, 210, 304;

Economics: ECON 111, 114;
Agricultural Economics: AREC 230;

Entrepreneurial Ventures: ENT 210, 220, 230.

## C4. Majors Requirement (60cu)

CMPT 141 (or 116 or 142)	Introduction to Computer Science	Y1
CMPT 145 (or 117 or 146)	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
CMPT 3		
CMPT 3		
CMPT 3	18cu from <b>Core CMPT</b> : CMPT 317, 332, 340, 353, 360, 370, 381	Y3/4
CMPT 3		Y3/4
CMPT 3		Y3/4
CMPT 3	]	
	3cu from <b>Upper CMPT</b>	Y3/4
CMPT 4	6cu from CMPT410 or higher	
CMPT 4		
MATH 110 (or 133 or 176)	Calculus 1*	Y1
	6cu from <b>Mathematics List</b>	
STAT 242 (or 245)	Statistics** (or EE216 or ME 251)	Y2

Upper CMPT: Computer Science: CMPT 3XX or CMPT 410 or higher

**Bioinformatics: BINF 300** 

Computer Engineering: CME 332, 334, 341, 342, 433, 435

Mathematics Note:\* Students with credit in other <u>Junior MATH</u> (MATH104, 121, 125) must complete MATH110 (or 176) and will lose credit for that previous Junior MATH. Contact the Math department for an override into MATH110.

 Mathematics
 Mathematics: (one of MATH 116 or 134 or 177),

 List:
 211, 223, 225, 266 (post 2020), 276, 327, 328, or (361 and 362), 364;

**Statistics:** STAT 241, 344, 345, or 348;

Philosophy: PHIL 243.

Statistics Note:\*\* Alternative STAT coursework (PLSC214 or PSY233+234 or COMM104+207 [c.f. Statistics Course Regulations]) with a grade of 70% or higher may be used But the substituted courses will not grant admission to CMPT394, 423, or 489.