

B.Sc. Four-Year Applied Computing (Data Analytics)

C1. College Requirement (15cu)

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|----------|--|-------------------------------|----|
| | 6cu from English Language Writing | | |
| | Indigenous Learning | | |
| MATH 163 | Mathematical Reasoning | Quantitative Reasoning | Y1 |
| MATH 164 | Linear Algebra | | Y1 |

C2. Breadth Requirement (6cu)

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| | 6cu from Fine Arts, Humanities, Social Science, or Interdisciplinary Studies | | |
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Refer to the [programme description](#) for the full list of courses that fulfill C1 and C2 requirements

C3. Cognate Requirement (12cu)

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| | 9 cu from Junior* | | |
| PHIL 232 | Ethics ... in Computer Science | | Y2/3/4 |

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 (15cu)

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| | Courses to complete the requirements for 120cu Honours program, of which at least 66 must be at the 200-level or higher. | | |
| | Pre-requisites for chosen majors courses fit here | | |

C4. Majors Requirement (72cu)

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| CMPT 141 | Computing in the Biological Sciences | Y1 |
| CMPT 145 | Introduction to Computer Science | Y1 |
| MATH 110 (or MATH 176) | Calculus I | |
| MATH 116 (or MATH 177) | Calculus II | |
| CMPT 260 | Mathematical Logic and Computing | Y2 |
| CMPT 270 | Developing Object-Oriented Systems | Y2 |
| CMPT 280 | Intermediate Data Structures | Y2 |
| MATH 211 | Numerical Analysis I | Y2 |
| MATH 266 | Linear Algebra II | Y2 |
| STAT 241 | Probability Theory | Y2 |
| STAT 24_ | STAT 242 or STAT 245 | Y2 |
| CMPT 317 | Introduction to Artificial Intelligence | Y3/4 |
| CMPT 318 | Data Analytics | Y3/4 |
| CMPT 384 | Information Visualization | Y3/4 |
| STAT 34_ | 6 credits from STAT 344, STAT 345, and STAT 346 | Y3/4 |
| STAT 34_ | | Y3/4 |
| CMPT ____ | 12 credits from CMPT 214, CMPT 353, CMPT 360, CMPT 370, CMPT 394, CMPT 484, CMPT 489 | Y2/3/4 |
| CMPT ____ | | Y2/3/4 |
| CMPT ____ | | Y2/3/4 |
| CMPT ____ | | Y2/3/4 |
| CMPT 423 | Machine Learning | Y4 |
| MATH ____ | 6 credits from MATH 238, MATH 313, MATH 314, MATH 325, MATH 327 | Y2/3/4 |
| MATH ____ | | Y2/3/4 |

NOTE: Students interested in the CS Professional Internship Programme must take CMPT 370 in Y3.