# **B.Sc. Honours Applied Computing (Geomatics)**

Students are reminded that admission to honours is by <u>application to the College</u>, after completing 30 credit units at USaskatchewan with a 70% CWA overall and in CMPT courses. Admission to CMPT407 will be refused to students who are not admitted to honours.

# C1. College Requirement (15cu)

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

# C2. Breadth Requirement (6cu)

|  | 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 | 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 (24cu)

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

### C4. Majors Requirement (63cu)

| CMPT 141 | Computing in the Biological Sciences                | Y1     |
|----------|---|--------|
| CMPT 145 | PT 145 Introduction to Computer Science             |        |
| GEOG 1   | One of GEOG 120, GEOG 125, or GEOG 130              |        |
| CMPT 260 | Mathematical Logic and Computing                    | Y2     |
| CMPT 270 | Developing Object-Oriented Systems                  | Y2     |
| CMPT 280 | Intermediate Data Structures                        | Y2     |
| GEOG 222 | Introduction to Geomatics                           | Y2     |
| STAT 245 | Introduction to Statistical Methods                 | Y2     |
| CMPT 318 | Data Analytics                                      | Y3     |
| CMPT 384 | Information Visualization                           |        |
| GEOG 302 | Quantitative Methods in Geography                   | Y3     |
| GEOG 322 | Introduction to Geographic Information Systems      | Y3     |
| GEOG 323 | Remote Sensing                                      | Y2     |
| CMPT 487 | Image Processing and Computer Vision                | Y4     |
| CMPT     |   | Y2/3/4 |
| CMPT     | 12 credits from List 1 — can be from different foci | Y2/3/4 |
| CMPT     | 12 Credits from List 1 — Can be from different loci | Y2/3/4 |
| CMPT     |   | Y2/3/4 |
|          | One of CMPT 407, GEOG 490, or PLAN 490              | Y4     |
|          | 6 credits from List 2 — can be from different foci  | Y3/4   |
|          | o creats from List 2 — Can be from afficient foci   | Y3/4   |

List 1: Software Engineering: CMPT 214, CMPT 353, CMPT 370
Analytics: CMPT 317, CMPT 360, CMPT 423, CMPT 489

User Interfaces and Visualization: CMPT 381, CMPT 481, CMPT 484

List 2: Planning: PLAN 350, PLAN 360, PLAN 390

Geography: GEOG 420, GEOG 423

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