B.Sc. **Honours** *Bioinformatics*

C1. English Writing Requirement (6cu)

C1. Indigenous Learning Requirement (3cu)

C1. Quantitative Reasoning Requirement (6cu)

MATH 110 or 176	Calculus I	1
MATH 116 or 177	Calculus II	1

See the College Website for a full list of courses that meet requirements C1:

https://programs.usask.ca/arts-and-science/bioinformatics/bsc-honours-bioinformatics.php

C2. Breadth Requirement (6cu)

Choose 6 credit units from Fine Arts, Humanities, Social Science, or courses with no program type, with a maximum of 3 credit units from Humanities. See the College Website for a full list of courses that meet requirements C2:

https://programs.usask.ca/arts-and-science/bioinformatics/bsc-honours-bioinformatics.php

C3. Cognate Requirement (6cu)

CHEM 112.3	General Chemistry I	1
PHIL 236.3	Ethics and Technology	

C5. Electives Requirement (15cu)

	PHIL 234 and PHIL 238 recommended	
	Courses to complete the requirements for 120cu Honours program; at least 66cu must be at the 200-level or higher.	

C4. Majors Requirement (78cu)

BINF 200	Introduction to Bioinformatics	2
BINF 300	Algorithms in Bioinformatics	3
BINF 400	Advanced Techniques in Bioinformatics	4
BIOC 310	Proteins and Enzymes	3
BIOL 120	The Nature of Life	3
BIOL 121	The Diversity of Life	3
BIOL 226 or MCIM 326	Genes to Genomics	2
BMIS 340 or BIOL 420	Molecular Biology	3
BMSC 200	Biomolecules	2
BMSC 240	Laboratory Techniques	2
CHEM 250	Introduction to Organic Chemistry	2
CMPT 141	Introduction to Computer Science	1
CMPT 145	Principles of Computer Science	1
CMPT 260	Mathematical Logic and Computing	2
CMPT 270	Developing Object-Oriented Systems	2
CMPT 280	Intermediate Data Structures and Algorithms	2
CMPT 353 or 355	Databases	3
CMPT 360	Machines and Algorithms	3
STAT 242	*Recommended, or STAT 245 or 246*	2
		3
		3
	21cu from Lists 1-4, with at least 3cu from each list. At least 6cu must be at 300-level or higher.	4
		4
		4
		4
		4

List 2:   CMPT 214, CMPT 215, CMPT 317, CMPT 364, CMPT 370, CMPT 381, CMPT 384, CMPT 394, CMPT 423, CMPT 463

List 3:   MATH 164 (264) or MATH 266, MATH 328, STAT 241, STAT 341, STAT 342, STAT 344, STAT 345, STAT 346, STAT 349

List 4:   BIOL 222, BIOL 224, BIOL 302, BIOL 323, BIOL 331, BIOL 342, BIOL 345, BIOL 361, BIOL 436

List 1:   ACB 331, ANBI 470, ANSC 313, BIOC 405, BIOC 412, BIOC 420, BIOC 436, BIOC 437, BIOL 226, BIOL 316, BIOL 420, BIOL 421, BMSC 210, BMSC 220, BMSC 230, BMSC 320, CHEM 255, MCIM 417, MCIM 487, PLSC 317, PLSC 411, PLSC 416