## 2022-2023 BMath (CS) + Bioinformatics Specialization

1. Please watch the "How to Pick Your CS Checklist and Fill it in" video.
2. Under Required Courses and Electives, check off the forty unique courses ( 20.0 units) that you have earned university credit for. Additional Elective Units can be any course for which you received university credit.
3. Verify that the Required Courses and Electives also satisfy the Additional Constraints.

## Required Courses

### 7.75 CS Units

$\square$ CS 1[134]5
$\square$ CS 1[34]6
$\square$ CS 136L (0.25 unit)
$\square$ CS 240
$\square$ CS 241
$\square$ CS 245
$\square$ CS 246
$\square$ CS 251
$\square$ CS 341
$\square$ CS 350
$\square$ CS 360 or CS 365
$\square$ CS 370 or CS 371
$\square$ CS 340-398; 440-489
$\square$ CS 482

## Electives

$\square 6.0$ Non-Math Elective Units:
Communication list $I^{1}$ :
Communication list $\mathrm{II}^{2}$ : $\qquad$ BIOL 130 BIOL 130 L ( 0.25 unit) BIOL 239 BIOL 240 BIOL 240 L ( 0.25 unit) BIOL 309 BIOL 365 BIOL $465^{3}$ CHEM 120 CHEM 120L ( 0.25 unit)
$\square$ CHEM 123
$\square$ CHEM 123L ( 0.25 unit)
$\square$ CS 440-489
4.5 Math Units

MATH 1[34]5
MATH 1[034]6
MATH 1[234]7
$\square$ MATH 1[234]8
$\square$ MATH 2[34]5
$\square$ MATH 2[34]7
$\square$ MATH 2[34]9
$\square$ STAT 2[34]0
$\square$ STAT 2[34]1
$\square$ CS 440-498 or CS 499T or CS 6xx or CS 7xx or CO 487 or STAT 440

## Additional Constraints

Breadth and depth met by BIOL and CHEM courses.
$\square$ Seven (regular) or eight (co-op) terms enrolled in at least three courses totaling 1.5 unitsNo more than 2.0 units of failed courses
$\square$ No more than 5.0 units of unusable course attempts (failures and repeats of passed courses)
$\square$ CS major average of $60 \%$ or higher
$\square$ Cumulative average of $60 \%$ or higher
$\square$ Co-op requirements met, if applicable, including PD 1, PD 11, PD 10, and a minimum of two other PD courses
${ }^{1}$ Communication List I: At least 60\% in one of EMLS 101R, EMLS 102R, EMLS/ENGL 129R, ENGL 109, SPCOM 100, SPCOM 223.
${ }^{2}$ Communication List II: One of EMLS 103R, EMLS 104R, EMLS 110R, ENGL 101B, ENGL 108B, ENGL 108D, ENGL 119, ENGL 208B, ENGL 209, ENGL 210E, ENGL 210F, ENGL 378/MTHEL 300, SPCOM 225, SPCOM 227, SPCOM 228, or an additional course from Communication List 1.
${ }^{3}$ BIOL 465 requires CHEM 233 or CHEM 237 as a prerequisite, but this is waived for CS students in the bioinformatics specialization.
${ }^{4}$ Three additional courses labeled ACTSC, AMATH, CO, PMATH, STAT, excluding the following:

- Courses with requisites normally excluding Honours CS students
- Courses cross-listed with a CS course
- Courses explicitly listed in CS major plans as alternatives to CS courses
- Reading and topics courses
- ACTSC 221, CO 353, CO 380, CO 480 checklist and ask a CS advisor to review it, but the student is ultimately responsible for ensuring that they have met their degree requirements. If there is a question of interpretation or a discrepancy, the University Calendar always takes precedence.

