

# 2020-2021 BMath CS + Business Specialization

- 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.
- Verify that the **Required Courses** and **Electives** also satisfy the **Additional Constraints**.

## Required Courses

- |  |  |
|--|--|
| <input type="checkbox"/> 7.5 CS Units  | <input type="checkbox"/> 4.5 Math Units      |
| <input type="checkbox"/> CS 1[134]5  | <input type="checkbox"/> MATH 1[34]5         |
| <input type="checkbox"/> CS 1[34]6   | <input type="checkbox"/> MATH 1[34]6         |
| <input type="checkbox"/> CS 240  | <input type="checkbox"/> MATH 1[234]7        |
| <input type="checkbox"/> CS 241  | <input type="checkbox"/> MATH 1[234]8        |
| <input type="checkbox"/> CS 245  | <input type="checkbox"/> MATH 2[34]5         |
| <input type="checkbox"/> CS 246  | <input type="checkbox"/> MATH 2[34]7         |
| <input type="checkbox"/> CS 251  | <input type="checkbox"/> MATH 2[34]9         |
| <input type="checkbox"/> CS 341  | <input type="checkbox"/> STAT 2[34]0         |
| <input type="checkbox"/> CS 350  | <input type="checkbox"/> STAT 2[34]1         |
| <input type="checkbox"/> CS 360 or CS 365  | <input type="checkbox"/> 1.5 Additional Math |
| <input type="checkbox"/> CS 370 or CS 371  | Units <sup>1</sup>                           |
| <input type="checkbox"/> CS 340-398; 440-489   | <input type="checkbox"/>                     |
| <input type="checkbox"/> CS 440-489  | <input type="checkbox"/>                     |
| <input type="checkbox"/> CS 440-489  | <input type="checkbox"/>                     |
| <input type="checkbox"/> CS 440-498 or CS 499T<br>or CS 6xx or CS 7xx or<br>CO 487 or STAT 440 |  |

## Electives

- |   |  |
|---|--|
| <input type="checkbox"/> 5.0 Non-Math Elective Units        | <input type="checkbox"/> 1.5 Additional Elective Units |
| <input type="checkbox"/> Communication list I <sup>2</sup>  | <input type="checkbox"/>                               |
| <input type="checkbox"/> Communication list II <sup>3</sup> | <input type="checkbox"/>                               |
| <input type="checkbox"/>                                    | <input type="checkbox"/>                               |
| <input type="checkbox"/>                                    |  |
| <input type="checkbox"/>                                    |  |
| <input type="checkbox"/>                                    |  |
| <input type="checkbox"/>                                    |  |
| <input type="checkbox"/>                                    |  |
| <input type="checkbox"/>                                    |  |

## Additional Constraints

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Two of:                          | <input type="checkbox"/> Non-math elective units must satisfy <a href="#">breadth and depth</a> requirements:           | <input type="checkbox"/> Seven (regular) or eight (co-op) terms enrolled in at least three courses totaling 1.5 units               |
| <input type="checkbox"/> CS 348                           | <input type="checkbox"/> All of (breadth):  | <input type="checkbox"/> No more than 2.0 units of failed courses   |
| <input type="checkbox"/> CS 454                           | <input type="checkbox"/> 1.0 units from the humanities <sup>4</sup>   | <input type="checkbox"/> No more than 5.0 units of unusable course attempts (failures and repeats of passed courses)                |
| <input type="checkbox"/> CS 490                           | <input type="checkbox"/> 1.0 units from the social sciences   | <input type="checkbox"/> CS major average of 60% or higher  |
| <input type="checkbox"/> Six of (business courses):       | <input type="checkbox"/> 0.5 units from the pure sciences   | <input type="checkbox"/> Cumulative average of 60% or higher  |
| <input type="checkbox"/> ACTSC 231                        | <input type="checkbox"/> 0.5 units from the pure or applied sciences  | <input type="checkbox"/> Co-op requirements met, if applicable, including PD 1, PD 11, PD 10, and a minimum of two other PD courses |
| <input type="checkbox"/> ACTSC 371                        | <input type="checkbox"/> One of (depth):  |   |
| <input type="checkbox"/> ACTSC 372                        | <input type="checkbox"/> 1.5 units in the same subject area with at least 0.5 units at the 3rd year level or higher, or |   |
| <input type="checkbox"/> AFM 101 or AFM 123 or ARBUS 102  | <input type="checkbox"/> 1.5 units with the same subject forming a prerequisite chain of length three                   |   |
| <input type="checkbox"/> AFM 102                          |   |   |
| <input type="checkbox"/> AFM 131 or ARBUS 101 or BUS 111W |   |   |
| <input type="checkbox"/> ARBUS 302 or MGMT 244            |   |   |
| <input type="checkbox"/> BUS 121W                         |   |   |

<sup>1</sup>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
- Readings and Topics courses
- ACTSC 221, CO 353, CO 380, CO 480

<sup>2</sup>Communication List I: At least 60% in one of EMLS 101R, EMLS 102R, EMLS/ENGL 129R, ENGL 109, SPCOM 100, SPCOM 223.

<sup>3</sup>Communication List II: One of EMLS 103R, EMLS 104R, EMLS 110R, 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.

<sup>4</sup>The below Communication courses from List II can be used to satisfy both the Communication List II requirement *and* 0.5 unit for the humanities (breadth) requirement. Communication List I courses do NOT satisfy the humanities (breadth) requirement.

- ENGL 108B, ENGL 108D, ENGL 119, ENGL 208B, ENGL 209, ENGL 210E, ENGL 210F, ENGL 378/MTHEL 300, SPCOM 225, SPCOM 227, SPCOM 228.

Disclaimer: This checklist is a handy tool, but it is not a substitute for the official degree regulations. If there is a question of interpretation or a discrepancy, the University Calendar always takes precedence: <http://ugradcalendar.uwaterloo.ca/group/MATH-Computer-Science-1>. You may complete the checklist and ask a CS advisor to review it, but the student is ultimately responsible for ensuring that they have met their degree requirements.