

2021-2022 BMath CS + Digital Hardware 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

7.5 CS Units

- CS 1[134]5
- CS 1[34]6
- CS 240
- CS 241
- CS 245
- CS 246
- ECE 222
- CS 341
- CS 350
- CS 360 or CS 365 _____
- CS 370 or CS 371 _____
- CS 340-398; 440-489 _____
- CS 450 or ECE 429 _____
- CS 440-489 _____
- CS 440-498 or CS 499T or CS 6xx or CS 7xx or CO 487 or STAT 440 _____

4.5 Math Units

- MATH 1[34]5
- MATH 1[34]6
- MATH 1[234]7
- MATH 1[234]8
- MATH 2[34]5
- MATH 2[34]7
- MATH 2[34]9
- STAT 2[34]0
- STAT 2[34]1

Electives

5.0 Non-Math Elective Units

including [Breadth and Depth](#):

- Communication list I¹: _____
- Communication list II²: _____
- GENE 123 or MTE 120
- ECE 124
- ECE 224 or MTE 325
- ECE 327
- ECE 423
- Recommended: ECE 455
- Recommended: PHYS 121
- One of ECE 320, ECE 429, or CS 450⁴ _____

2.5 Additional

Elective Units

- Humanities: _____
- Humanities or non-math³: _____
- Social Science: _____
- Social Science: _____
- Pure Science: _____

1.5 Additional Math

Units⁵

- _____
- _____
- _____

Additional Constraints

Two of:

- CS 452
- CS 454
- CS 456
- CS 457

Depth – The depth requirement is automatically met by the required ECE courses.

Seven (regular) or eight (co-op) terms enrolled in at least three courses totaling 1.5 units

No more than 2.0 units of failed courses

No more than 5.0 units of unusable course attempts (failures and repeats of passed courses)

CS major average of 60% or higher

Cumulative average of 60% or higher

Co-op requirements met, if applicable, including PD 1, PD 11, PD 10, and a minimum of two other PD courses

¹Communication List I: At least 60% in one of EMLS 101R, EMLS 102R, EMLS/ENGL 129R, ENGL 109, SPCOM 100, SPCOM 223.

²Communication 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.

³The courses below can be used to satisfy both the Communication List II requirement **and** 0.5 unit for the humanities (breadth) requirement.

- ENGL 101B, ENGL 108B, ENGL 108D, ENGL 119, ENGL 101B, ENGL 208B, ENGL 209, ENGL 210E, ENGL 210F, ENGL 378/MTHEL 300, SPCOM 225, SPCOM 227, SPCOM 228.

⁴Students taking ECE 429 instead of CS 450 will count this as a 0.5 math unit in the range CS 440-CS 498, and not a 0.5 non-math unit.

⁵Three 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

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.