

2021-2022 BMath CS Artificial Intelligence 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
- CS 251
- CS 341
- CS 350
- CS 360 or CS 365 _____
- CS 370 or CS 371 _____
- CS 340-398; 440-489 _____
- CS 480 or CS 485 _____
- CS 486
- CS 492

4.5 Math Units

- MATH 1[34]5
- MATH 1[034]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 I²: _____
- Communication list II³: _____
- Humanities: _____
- Humanities or non-math⁴: _____
- Social Science: _____
- Social Science: _____
- Pure Science: _____
- Pure or Applied Sciences: _____
- _____
- _____

1.5 Additional Elective Units

- _____
- _____
- _____

1.5 Additional Math Units¹

- _____
- _____
- _____

Additional Constraints

- ECE 380 or SE 380⁵
- Three courses chosen from List A⁶
 - CO 367 CO 466 CS 484 STAT 440 ECE 423 ECE 488 SYDE 522
 - CO 456 CS 452 CS 485⁷ STAT 441 ECE 481 MSCI 446 SYDE 556
 - CO 463 CS 480⁷ STAT 341 STAT 444 ECE 486 MTE 544 SYDE 572

- Depth** - 1.5 units in the same subject where either
(a) at least 0.5 unit is 3xx or higher **or**

(b) all three form a prerequisite chain

Courses for breadth can also be used for depth.

Write the non-math elective units from above that you will use for depth.

- _____
- _____
- _____

- 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

¹Three 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

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

³Communication 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.

⁴The 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 101BENGL 208B, ENGL 209, ENGL 210E, ENGL 210F, ENGL 378/MTHEL 300, SPCOM 225, SPCOM 227, SPCOM 228.

⁵For ECE 380/SE 380, MATH 213 is an acceptable alternative for its noted prerequisite. Alternatively, ECE 380/SE 380 can be substituted with CS 480, CS 484, or CS 485. If this substitution is chosen, then the substituted CS course cannot be used towards the one of 'three additional courses' from List A.

⁶At least one of the 'three additional courses' must be from Math and at least one from Engineering. Special topics courses (e.g., CS 489) may sometimes be appropriate for this option; interested students should see a CS advisor for confirmation. Please note that you must complete the appropriate prerequisites in order to take the engineering courses required for AI specialization. In some cases, you may be required to take more courses beyond what is noted on the checklist. Engineering courses listed here cannot be used towards non-math electives.

⁷One of CS 480 and CS 485 is required. If both courses are taken, then one of them would count as one of 'three additional courses' from List A. However, please see the restriction noted for these courses in footnote #4.

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. 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.