

# 2020-2021 BCS + Software Engineering Specialization

1. 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.
2. Verify that the **Required Courses** and **Electives** also satisfy the **Additional Constraints**.

## Required Courses

- 8.5 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 445/ECE 451
  - CS 446/ECE 452
  - CS 447/ECE 453
  - CS 492
  - CS 3XX from List A
  - CS 3XX from List A
  - CS 4XX from List B
  - CS 4XX from List B

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

## Electives

- 5.0 Non-Math Elective Units
- Communication list I<sup>1</sup>
  - Communication list II<sup>2</sup>
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- 3.0 Additional Elective Units
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## Additional Constraints

- Choose two from List A:
- CS 343
  - CS 348
  - CS 349
- Choose two from List B:
- CS 444     CS 457
  - CS 448     CS 458
  - CS 449     CS 484
  - CS 450     CS 485
  - CS 452     CS 486
  - CS 454     CS 488
  - CS 456
- Non-math elective units must satisfy [breadth and depth](#) requirements:
- All of (breadth):
    - 1.0 units from the humanities<sup>3</sup>
    - 1.0 units from the social sciences
    - 0.5 units from the pure sciences
    - 0.5 units from the pure or applied sciences
  - One of (depth):
    - 1.5 units in the same subject area with at least 0.5 units at the 3rd year level or higher, or
    - 1.5 units with the same subject forming a prerequisite chain of length three
- 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

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

<sup>2</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>3</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.