### Honours in Mathematical Optimization:
#### Business Specialization Checklist (updated May 2023)

Contact David Jao ([coundergrad.officer@uwaterloo.ca](mailto:coundergrad.officer@uwaterloo.ca)) for further assistance.

**Notational conventions:** brackets indicate choice lists; i.e., “[134]5” is a short-hand for “135 or 145”; □ indicate requirements.

**Disclaimer:** In case of discrepancies between the checklist and the University Calendar located at: [http://ugradcalendar.uwaterloo.ca/page/MATH-Mathematical-Optimization-Degree-Requirements](http://ugradcalendar.uwaterloo.ca/page/MATH-Mathematical-Optimization-Degree-Requirements)

The University Calendar will always take precedence. This checklist does not apply to students in Double Degree plans.

You may replace CS courses with the corresponding courses available to CS Honours Computer Science major students.

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<th>STAT</th>
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None of the courses given above can be used to meet the following requirements:

- ACTSCI 231
- AFM 102
- BUS 111W
- BUS 121W
- BUS 352W
- BUS 481W
- CS 338
- ECON 102
- MSCI 432
- STAT 371
- STAT 372

1. **Math courses:**
   - Courses/Cross-listed courses with prefixes: ACTSC, AMATH, CO, CS, MATBUS, MATH, PMATH, or STAT
   - Additionally, any course cross-listed with one of these subject codes is considered a MATH course.

2. **Non-math courses:**
   - Courses with the prefix COMM, MTHEL, and those courses offered by other faculties (excluding courses cross-listed with math courses and courses listed above as math courses)
   - COOP and PD courses do not count as math or non-math courses.

3. **Excluding PD courses and co-op work-term courses.**

4. **Undergraduate Communication Requirement requires:**
   - At least 60% in one of the following courses (prior to 2A term): COMMST [100, 223], EMLS [101R, 102R], EMLS/ENGL 129R, ENGL 109
   - One of the following courses: COMMST [225, 227, 228], EMLS [103R, 104R, 110R], ENGL [101B, 108B, 108D, 119, 208B, 209, 210E, 210F], ENGL 378/MTHEL 300

5. **The Mathematical Optimization – Business Specialization cannot be combined with any other business or accounting academic plans.**