

# 2013-2014 Honours in Combinatorics & Optimization Checklist

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**Notational conventions:** brackets indicate choice lists; i.e., “1[34]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-Combinatorics-and-Optimization> 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.

	MATH	CS
<input type="checkbox"/> Minimum 20 course units		
<input type="checkbox"/> Minimum 5 non-math course units <sup>2</sup>	<input type="checkbox"/> 1[034]6	<input type="checkbox"/> One of: 115, 135, 145
<input type="checkbox"/> Minimum 60% cumulative and major average	<input type="checkbox"/> 1[234]7	<input type="checkbox"/> One of: 116, 136, 146
<input type="checkbox"/> <b>Maximum 3 course units excluded/failed</b> <sup>3</sup>	<input type="checkbox"/> 1[234]8	COOP (if applicable)
<input type="checkbox"/> Maximum 25 course units attempted <sup>3</sup>	<input type="checkbox"/> 1[34]5	<input type="checkbox"/> 2.5 Coop work-term course units
<input type="checkbox"/> Minimum 7 full-time terms (regular), 8 full-time terms (coop)	<input type="checkbox"/> 2[34]5	<input type="checkbox"/> 2.5 PD course units
<input type="checkbox"/> English writing skills <sup>4</sup>	STAT	<input type="checkbox"/> 4 Work reports
	<input type="checkbox"/> 2[34]0	
	<input type="checkbox"/> 2[34]1	
<input type="checkbox"/> MATH 2[34]9		
<input type="checkbox"/> CO 25[05]	<input type="checkbox"/> 2 <u>additional</u> 300/400 level Math courses, non-CO prefix <sup>1</sup>	
<input type="checkbox"/> CO 330 <b>or</b> CO 342	_____	
<input type="checkbox"/> CO 351 <b>or</b> CO 353 <b>or</b> CO 367 <sup>5</sup>	_____	
<input type="checkbox"/> 3 <u>additional</u> courses from: CO 330, 331, 342, 351, 353, 367, CO 430-487 ( <b>excluding</b> 480)	<input type="checkbox"/> 1 <u>additional</u> 300/400 level Math course <sup>1</sup>	
_____	_____	
_____	<input type="checkbox"/> 3 <u>additional</u> Math courses <sup>1</sup>	
<input type="checkbox"/> PMATH 336 <b>or</b> 346 <b>or</b> 347	_____	
<input type="checkbox"/> 3 courses (at most <u>one</u> from each ○) from:	_____	
○ MATH 237 <b>or</b> 247	_____	
○ AMATH/PMATH 331 <b>or</b> 351		
○ AMATH/PMATH 332 <b>or</b> 352		
○ PMATH 334 <b>or</b> 345 <b>or</b> 348		
○ PMATH 340 <b>or</b> 440		
○ CS 462 <sup>6</sup>		
○ CS 466 <sup>6</sup>		
○ CS 487		
<sup>1</sup> <b>Math courses:</b>		
• Courses/Cross-listed courses with prefixes: ACTSC, AMATH, CO, CM, CS, MATBUS, MATH, PMATH, or STAT		
• As well as: ECE 222, 354, 428; SE 212/112, 240, 382, 463, 464, 465		
<sup>2</sup> <b>Non-math courses:</b>		
• 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)		
• Work-term courses (COOP1 to COOP6) and PD courses do not count as math or non-math courses		
<sup>3</sup> Excluding PD courses and co-op work-term courses.		
<sup>4</sup> English writing skills requires one of:		
• At least 60% on the ELPE		
• Successfully complete the study program offered by the UW Writing Centre		
• At least 60% on one of the following courses: ENGL 109, ENGL/ESL 129R, ENG 140 R, 210E, 210F, ESL 102R		
<sup>5</sup> If CO 255 is taken, this requirement can be satisfied by taking one of CO 450-471		
<sup>6</sup> These courses are only open to CS majors		