

	Mathematical Applications in Economics and Finance Specialist (428)	Mathematics & Its Applications Specialist (Physical Science) (18)	Mathematics & Its Applications Specialist (Prob/Stats) (142)	Mathematics & Its Applications Specialist (Teaching) (16)	Applied Mathematics Specialist ("research career stream") (62)	Mathematics and Philosophy Specialist ("research career stream") (20)	Mathematics and Physics Specialist ("research career stream") (80)	Mathematics Specialist ("research career stream") (161)	Mathematics Major (1234)	Mathematics Minor (991)	
Completion Requirements:	12-12.5 FCE, including at least 1.5 FCE at the 400-level	13.5-14.5 FCE, including at least 1.0 FCE at the 400 level	11.5-13.0 FCE, including at least 1.0 FCE at the 400 level	11.5 - 12 FCE, including at least 1.0 FCE at the 400 level	13.0-13.5 FCE, including at least 1.5 FCE at the 400-level	Consult the UChairs of Math and Phil; 12.0 FCE including at least 1.0 FCE at the 400-level	14.5-15.5 FCE, including at least 1.0 FCE at the 400-level	12.5 FCE, including at least 3.0 FCE at the 400-level	7.5 full courses or their equivalent. These must include at least 2.5 full course equivalent (FCE) at the 300+ level. Of those 2.5 FCE, at least 0.5 FCE must be at the 400 level	4.0 FCE	
First Year:	ECO100Y1; MAT137Y1 / MAT157Y1 , MAT223H1 , MAT224H1 (Ensure that you pass the first year courses with grades that allow ECO206Y1)	CSC108H1 , CSC148H1 / CSC150H1 ; MAT137Y1 / MAT157Y1 , MAT223H1 / MAT240H1		CSC108H1 ; MAT137Y1 / MAT157Y1 , MAT223H1 / MAT240H1	MAT157Y1 , MAT240H1 , MAT247H1 ; CSC108H1 , CSC148H1 / CSC150H1	MAT157Y1 , MAT240H1 , MAT247H1 ; PHL232H1 or PHL233H1	MAT157Y1 , MAT240H1 , MAT247H1 ; PHY151H1 , PHY152H1	MAT157Y1 , MAT240H1 , MAT247H1	MAT135H1 , MAT136H1 / MAT137Y1 / MAT157Y1 , MAT223H1 / MAT240H1	1. MAT135H1 / MAT136H1 / MAT137Y1 / MAT157Y1 2.	
Second Year:	ECO206Y1 ; MAT237Y1 , MAT244H1 , MAT246H1 (waived for students taking 157Y1); STA257H1 , STA261H1	MAT224H1 / MAT247H1 , MAT235Y1 ("Teaching" only)/ MAT237Y1 / MAT257Y1 , MAT246H1 (waived for students taking MAT157Y1), MAT244H1 / MAT267H1 ; STA257H1 . MAT237Y1 / MAT257Y1 is a direct or indirect prerequisite for many courses in each of the areas of concentration except the Teaching Concentration. Students are advised to take MAT237Y1 / MAT257Y1 unless they have planned their course selection carefully and are certain that they will not need it.			MAT257Y1 , MAT267H1 ; STA257H1 , STA261H1			MAT257Y1 , MAT240H1 , MAT247H1 ; PHY224H1 , PHY250H1 , PHY252H1 , PHY254H1 , PHY256H1	MAT257Y1 , MAT267H1	MAT224H1 / MAT247H1 , MAT235Y1 / MAT237Y1 / MAT257Y1 , MAT244H1 , MAT246H1 NOTE: MAT224H1 may be taken in first year	MAT221H1 (8 0%+)/ MAT223H1 / MAT240H1 / MAT235Y1 / MAT237Y1 / MAT257Y1 / MAT224H1 / MAT244H1 / MAT246H1 / APM236H1 / MAT247H1 Note: MAT221H1 / MAT223H1 should be taken in first year 3. Additional 1.0 FCE at the 300+ level from APM / MAT / H
Second and Higher Years:	Note A: At least 0.5 FCE with a significant emphasis on ethics and social responsibility: ENV333H1 / ETH201H1 / ETH210H1 / ETH220H1 / HPS200H1 / IMC200H1 / JPH441H1 / PHL265H1 / PHL273H1 / PHL275H1 / PHL281H1 or another H course approved by the Department. Note: Students may use the CR/NCR option with this H course and have it count toward the Mathematics Specialist program. Students in the VIC program may also use VIC172Y1 .			Note A.		1. MAT257Y1 , MAT327H1 , MAT347Y1 , MAT354H1 / MAT357H1 2. PHL345H1 , MAT309H1 / PHL348H1 3. Four of: PHL325H1 , PHL331H1 , PHL332H1 , PHL346H1 , PHL347H1 , PHL349H1 , PHL355H1 , PHL451H1 , PHL480H1 4. 1.0 FCE from PHL200Y1 / PHL205H1 / PHL206H1 / PHL210Y1 5. PHL265H1 / PHL275H1 6. Additional 2.0 FCE from PHL or MAT to a total of 12.0 FCE	1. Note A. 2. PHY252H1 and PHY324H1 may be taken in the 2 nd or 3 rd year.	1. Note A. 2. MAT327H1	At least 0.5 FCE with a significant emphasis on ethics and social responsibility: ETH201H1 / ETH220H1 / HPS200H1 / JPH441H1 / PHL265H1 / PHL273H1 / PHL275H1 / PHL281H1 or another H course approved by the Department. Note: Students may use the CR/NCR option with this H course and have it count toward the program.	MAT257Y1 / MAT224H1 / MAT244H1 / MAT246H1 / APM236H1 / MAT247H1 Note: MAT221H1 / MAT223H1 should be taken in first year 3. Additional 1.0 FCE at the 300+ level from APM / MAT / H	
Third and Fourth Years:	Third Year: 1. APM346H1 ; ECO358H1 ; ECO359H1 ; MAT337H1 ; STA302H1 / ECO375H1 ; STA347H1 2. One of: MAT332H1 , MAT344H1 , MAT334H1 , MAT475H1 Fourth Year: APM462H1 , APM466H1 ; STA457H1	MAT301H1 , MAT334H1			1. MAT351Y1 ; MAT327H1 , MAT347Y1 , MAT354H1 , MAT357H1 , MAT363H1 / MAT367H1 (MAT363H1 can be taken in the second year, if desired); STA347H1 2. At least 1.5 FCE from: MAT332H1 , MAT344H1 , MAT454H1 , MAT457H1 , MAT458H1 , MAT464H1 ; STA302H1 , STA457H1 ; CSC336H1 , CSC436H1 , CSC446H1 , CSC456H1 3. 1.0 FCE from: APM421H1 , APM426H1 , APM441H1 , APM446H1 , APM461H1 , APM462H1 , APM466H1 4. MAT477H1		Third Year: 1. MAT351Y1 ; MAT334H1 / MAT354H1 , MAT357H1 / MAT363H1 / MAT367H1 2. One of: MAT327H1 , MAT347Y1 , MAT363H1 / MAT367H1 (MAT363H1 can be taken in the second year, if desired) 3. PHY324H1 , PHY350H1 , PHY354H1 , PHY356H1 Fourth Year: 1. Two of: APM421H1 , APM426H1 , APM446H1 , APM441H1 2. Two of: PHY450H1 , PHY452H1 , PHY454H1 , PHY456H1 , PHY460H1	1. MAT347Y1 , MAT354H1 , MAT357H1 / MAT363H1 / MAT367H1 (MAT363H1 can be taken in the second year, if desired) 2. 2.0 FCE of: MAT309H1 , MAT351Y1 , ANY 400-level APM / MAT 3. 3.0 FCE of APM / MAT at the 300+ level, including at least 2.0 FCE at the 400 level (these may include options above not already chosen) 4. MAT477H1	1. MAT301H1 , MAT309H1 / MAT315H1 , MAT334H1 2. Additional 0.5 FCE at the 200+ level from: ACT240H1 / ACT230H1 ; APM236H1 ; MAT309H1 / MAT315H1 / MAT335H1 / MAT337H1 ; STA247H1 / STA257H1 3. Additional 0.5 FCE at the 300+ level from: APM346H1 , APM462H1 ; MAT309H1 , MAT315H1 , MAT332H1 / MAT344H1 , MAT335H1 , MAT337H1 , MAT363H1 , MAT475H1 ; HPS390H1 , HPS391H1 ; PSL432H1 4. MAT401H1 / MAT402H1 or any other MAT / APM 400-level course	PS390H1 / HPS391H1 / PSL432H1	
NOTES:	Note B: Students planning to take specific fourth year courses should ensure that they have the necessary second and third year prerequisites.	Note B. Physical Sciences Concentration: 1. PHY151H1 , PHY152H1 ; AST221H1 2. Three of: AST222H1 ; PHY250H1 , PHY252H1 , PHY254H1 , PHY256H1 3. APM346H1 / MAT351Y1 4. Three of: AST320H1 , AST325H1 ; MAT337H1 , MAT363H1 / MAT367H1 ; PHY350H1 , PHY354H1 , PHY356H1 , PHY357H1 , PHY358H1 5. Two of: APM421H1 , APM426H1 , APM441H1 , APM446H1 ; PHY407H1 , PHY408H1 , PHY456H1	Note B. Probability/Statistics Concentration: 1. APM346H1 / MAT351Y1 / APM462H1 ; MAT337H1 ; STA261H1 , STA302H1 , STA347H1 , STA352Y1 / STA452H1 , STA453H1 2. Additional 1.0 FCE at the 300+ level from APM / MAT / STA 3. Two of: STA437H1 , STA442H1 , STA447H1 , STA457H1	Note B. Teaching Concentration: For course selection, note that OISE requires students to have a second teachable subject. 1. MAT329Y1 , HPS / MAT390H1 , HPS / MAT391H1 2. Two of: MAT332H1 / MAT344H1 , MAT335H1 , MAT337H1 , MAT363H1 / MAT367H1 3. Two of: MAT309H1 , MAT315H1 ; STA302H1 / STA347H1 4. MAT401H1 / MAT402H1 and 0.5 FCE at the 400-level from MAT , APM , STA	1. The Department recommends that PHY151H1 and PHY152H1 be taken in the First Year, and that CSC148H1 and STA257H1 be taken during the program. If you do not have a year-long course in programming from high school, the Department strongly recommends that you take CSC108H1 prior to CSC148H1 . 2. Note B. 3. Note C.	Note C: Students with a CGPA of 3.5 and above may apply to have graduate level math courses count towards their 400-level course requirements.	3. One of: MAT477H1 ; PHY424H1 , PHY478H1 , PHY479Y1 1. Students who are intending to apply to graduate schools in mathematics would be well-advised to take MAT347Y1 . 2. Note B. 3. Note C.	1. The dep. recommends that PHY151H1 and PHY152H1 be taken in the First Year, and that CSC148H1 and STA257H1 be taken during the program. If you do not have a year-long course in programming from high school, the dep. strongly recommends that you take CSC108H1 prior to CSC148H1 . 2. Note B. 3. Note C.	1. Students using MAT157Y1 towards the first year program requirements must replace the exclusion course MAT246H1 with a different H level MAT / APM course at the 200+ level. 2. Note D. With a judicious choice of courses, usually including introductory computer science, students can fulfill the requirements for a double major in mathematics and one of several other disciplines. 3. Note B. 4. Students interested in becoming K-12 teachers should consider applying to the combined degree program - a six-year program that leads to an Honours Bachelor of Science (H B Sc) from the University of Toronto and a Master of Teaching (M T) from the Ontario Institute for Studies in Education (OISE). The HBSc part of this program involves completing a Math Major, a Minor in Education and Society (offered by Victoria College) and a Minor in an area that would lead to a second "teachable" subject. See the Victoria College website for more information.	1. Note D: higher level courses within the same topic are acceptable substitutions. 2. Note B.	

