MAJOR IN MATHEMATICS

Mathematics and statistics are not only powerful problem-solving tools, but also highly creative fields of studies that combine imagination with logic, and precision with intuition.

Mathematics is much more than numbers! Its basic goal is to reveal and model general patterns to help explain our world, whether they be found in electrical impulses in the human nervous system, the evolution of animal populations in their habitats, fluctuations in stock-market prices, or electronic communications. Mathematics reaches far beyond science and engineering into medicine, business and the social sciences.

Advances in mathematics and statistics lie behind many discoveries that are now part of our daily lives, such as MRI scanners, digital compression of music and video, secure electronic communications, data mining, genomic algorithms, futures pricing, and many other innovations.

The Department of Mathematics and Statistics offers Honours, majors and minors both in mathematics and in statistics. Our Honours program in statistics is accredited by the Statistical Society of Canada, allowing graduates to earn the A.Stat. professional designation. Moreover, the Department offers a joint honours program in mathematics and economics, a joint honours program in mathematics and computer science, as well as a multidisciplinary program in financial mathematics and economics. All our honours programs also include the co-operative education option.

This program is offered in English and in French.

Program Requirements

The table below includes only the discipline-specific courses. Please refer to the Academic Regulations (https://www.uottawa.ca/about-us/policies-regulations/academic-regulations/b-2-program-studies/) for information on the Honours bachelor's with double major and the Honours bachelor's with major and minor.

Co-operative education is available when taken as part of an honours degree.

The French immersion stream is available when taken as part of an honours degree.

Requirements for this program have been modified. Please consult the 2025-2026 calendars (http://catalogue.uottawa.ca/en/archives/) for the previous requirements.

Baisc Skills		
3 optional course units in English (ENG) at the 1000 or 2000 level		3 Units
Compulsory Courses at the 1000 level		
ITI 1120	Introduction to Computing I	3 Units
MAT 1320	Calculus I	3 Units
MAT 1322	Calculus II	3 Units
MAT 1341	Introduction to Linear Algebra	3 Units
MAT 1362	Mathematical Reasoning and Proofs	3 Units
Compulsory Courses at the 2000 level		
MAT 2122	Multivariable Calculus	3 Units
MAT 2125	Elementary Real Analysis	3 Units
MAT 2141	Honours Linear Algebra	3 Units
MAT 2143	Introduction to Group Theory	3 Units
MAT 2371	Introduction to Probability	3 Units
Optional Courses		
9 course units from:		9 Units
MAT 2324	Ordinary Differential Equations and the Laplace Transform [1]	
MAT 2335	Introduction to Numerical Methods	
MAT 2348	Discrete Mathematics [2]	
MAT 2355	Introduction to Geometry	
MAT 2362	Foundations of Mathematics [3]	
STA 2100	Introduction to Statistics	
12 optional course units in mathematics (MAT) or statistics (STA) at the 3000 or 4000 level [1,4, 5]		12 Units
6 optional course units in mathematics (MAT) at the 4000 level [4, 5]		6 Units
Total:		**60 Units**

Note(s)

1. Students interested in applied mathematics should take MAT 2324 and MAT 3341.
2. Students interested in discrete mathematics should take MAT 2348.
3. MAT 2362 is strongly recommended and is required for further study of logic.
4. The course MAT 3153 cannot be counted for units if you have previously passed MAT 4153. You may however take MAT 3153 and then subsequently take MAT 4153, and count both for units.
5. Students planning to go to graduate school in mathematics must consult the Department of Mathematics and Statistics.