Bachelor of Mathematics
In today's information-overload world, the modern citizen is routinely confronted by a maze of numbers and data of various forms. To be able to make sense out of this, an increased knowledge of mathematics and statistics is essential.

Studying pure mathematics or one of its many applications in engineering, computer science, physics or chemistry can provide you with a competitive advantage in many fields.

An undergraduate degree in mathematics can also give you a firm foundation for further study in a variety of other disciplines. In fact, since mathematics is essential to so many fields, you may want to include it in your program even if you decide to major in another subject.

The Carleton advantage

Our degree programs provide you with focused training. Unlike many universities, we offer first-year math courses exclusively for students interested in pursuing a degree in mathematics or statistics. At Carleton, you will find courses taught by leading researchers who are committed to student success, and our undergraduate labs are installed with state-of-the-art mathematical and statistical software which is also used in industry. You can also receive one-on-one tutorial assistance with mathematics problems through our Mathematics Tutorial Centre which runs a free drop-in service.

CO-OP OPPORTUNITIES

The co-op program combines classroom learning with work terms, for the kinds of hands-on experience you will find only in the workplace. Co-op can also provide you with networking opportunities, financial support and direct contact with potential employers.

The capital advantage

Many of our professors have ties with federal government departments. For example, there is extensive collaboration between the statisticians here and those at Statistics Canada and at Health Canada.

In addition, you will have access to a broad network of professionals in organizations throughout the National Capital Region where mathematics and statistics play a vital role. Among them are the National Research Council Canada and some of the leading companies in Canada’s high technology sector.

Mathematics and statistics are at the heart of many of today’s advancements in medicine, science and technology. They can also help us make sense of what sometimes seem like life’s mysteries.
Choosing the right program
Carleton University offers a variety of undergraduate programs in Mathematics and Statistics leading to a Bachelor of Mathematics (BMath) degree, as well as to the Bachelor of Science (Double Honours) in Mathematics and Physics.

You can choose either a General program, which requires 15.0 credits and is normally completed in three years of full-time study, or an Honours program, which requires 20.0 credits and normally takes four years to complete.

In planning your program, you will want to consider a number of things, such as how many Computer Science courses to include in your program and whether you should combine your studies in Mathematics with courses in the arts, social sciences or experimental sciences. We are ready to help you design a program that is right for you.

COMPUTATIONAL AND APPLIED MATHEMATICS AND STATISTICS (HONOURS)
Students in the Computational and Applied Mathematics and Statistics program or the Computer Mathematics (General) program will acquire the knowledge and skills needed to pursue careers involving the design of computers and computer networks as well as the application of computers in solving critical problems in business, government and science. For example, you might find yourself developing new ways to protect information from both improper access and corruption during transmission, helping managers in business and government to allocate resources optimally, or using computer networks to study traffic flow and optimal routing. Offered as an Honours program, students have the choice of three concentrations:
- Applied Analysis
- Applied Statistics and Probability
- Discrete Mathematics
A three-year General program in Computer Mathematics is also available.

MATHEMATICS (GENERAL OR HONOURS)
These programs provide general training in mathematics and statistics. In these programs, Computer Science courses may be taken as options. In the Honours program, you may choose to pursue a specialization in Stochastics.

STATISTICS (GENERAL OR HONOURS)
The General program in Statistics provides you with the background you will need to work as a methodologist in a variety of statistics-related fields. The Honours program prepares you for a career as a professional statistician, for work in actuarial science, or for further advanced studies.

Actuarial Science concentration
The Statistics (Honours) program offers a concentration in Actuarial Science. Building on the B.Math Statistics (Honours) program, this concentration provides a targeted sequence of courses in Business and Economics so that students meet all three undergraduate Validation by Educational Experience (VEE) course requirements and have the background to write all three undergraduate level exams set out by the Society of Actuaries for professional designation.

COMPUTER SCIENCE AND MATHEMATICS (COMBINED HONOURS)
If you are also interested in Computer Science, consider our BMath Combined Honours program in Computer Science and Mathematics. This limited enrolment program, similar to the Bachelor of Computer Science program, places equal emphasis on Mathematics and Computer Science. You can follow one of two concentrations: Computing Theory and Numerical Methods or Statistics and Computing.

“The Bachelor of Mathematics (Honours) program at Carleton is top notch. The classes are challenging, yet small, creating a real sense of community. And the professors have really made me feel welcomed with their eagerness to lend a hand, attend Math Society events, or even play soccer after class! Also, the co-op option has made a big difference in my education, providing me with work terms that I know will leave me better prepared for future employment. I love Carleton and I would choose it again in a heartbeat!”

Michelle Kovesi, Mathematics student
MATHEMATICS AND ECONOMICS; STATISTICS AND ECONOMICS (COMBINED HONOURS)
These two Combined Honours programs offer a strong blend of courses in these closely related disciplines.

MATHEMATICS AND PHYSICS (BACHELOR OF SCIENCE [DOUBLE HONOURS])
This is an elite program that allows you to combine intense study of Mathematics with modern Physics. It will also prepare you for advanced study in theoretical physics.

COMBINED BACHELOR’S AND MASTER’S DEGREE PROGRAM
This program “fast-tracks” exceptional Mathematics or Statistics students, making it possible to graduate in four years instead of five with both a bachelor’s and a master’s degree. You can graduate with a combined Bachelor of Mathematics/Master of Science in Mathematics or in Statistics.

MINORS
Students in undergraduate programs not in the School of Mathematics and Statistics can opt to take a four-credit minor in Mathematics or Statistics.

Future opportunities
The BMath (Honours) degree provides excellent training for many diverse fields, such as:
- actuarial science
- business modelling
- data mining
- information security
- management and systems analysis

Students with a degree in Statistics may find employment in:
- data analysis
- financial modelling
- market analysis
- survey design

GRADUATE STUDIES
Graduates of all of our programs are well qualified to go on to graduate studies in a variety of fields including mathematics and statistics, mathematical physics, meteorology, oceanography, computer science, information science, actuarial science, business, engineering, biostatistics, econometrics and psychology.

PROFESSIONAL PROGRAMS
Mathematics and Statistics provide a strong foundation for many professional programs.

Admission requirements
For admission to the Mathematics and Statistics programs, you must have the Ontario Secondary School Diploma (OSSD) or equivalent, including a minimum of six 4 U/M courses. Your six 4 U/M courses must include Advanced Functions and Calculus and Vectors or their equivalent.

It is Carleton University policy to consider your best performance in any eligible course in the admissions assessment. Since the number of qualified applicants may be greater than the number of available spaces, cut-off averages and required marks may vary. Please refer to admissions.carleton.ca/requirements for the current admission requirements.

Do you want more information? Please contact us at:

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This document is available in a variety of accessible formats upon request. A request can be made on the Carleton University website at: carleton.ca/accessibility/request

admissions.carleton.ca