

Mathematics and Statistics



Get to know **MATHEMATICS AND STATISTICS**

Mathematicians seek out patterns, construct rigorous arguments, articulate assumptions, appreciate the value of a precise definition, analyze mathematical models, and create beautiful structures. Statisticians produce trustworthy data, extract meaning and draw practical conclusions from data, test theories, provide mathematical evidence, and critique the reasoning of others. In both cases, these skills have a surprising ability to help make sense of the physical, biological, artistic, psychological, economic, social, and philosophical worlds. As a consequence, quantitative expertise is in high demand on the job market. Moreover, rankings of occupations invariably list multiple careers in mathematics and statistics among the very best.

Degree **PLANS**

Bachelor of Science (Honours)
*Major / Minor in Mathematics and Statistics /
Specialization in Biology and Mathematics,
Mathematical Physics*

Bachelor of Computing (Honours)
Specialization in Computing and Mathematics

Bachelor of Arts (Honours)
*Medial / Minor in Mathematics and Statistics
Internship option available*



One of two founding programs of Queen's University, a proud history dating back to 1842.

Queen's **ADMISSION**

BAH students apply to Queen's Arts (QA) through the OUAC (Ontario Universities' Application Centre) website (ouac.on.ca). Secondary School prerequisites include six 4U and 4M courses, including a minimum of three 4U courses, one of which must be ENG4U. Applicants outside of Ontario may have additional requirements.

BScH students apply to Queen's Science (QS) through the OUAC (Ontario Universities' Application Centre) website (ouac.on.ca). Secondary School prerequisites include English 4U, Advanced Functions 4U, Calculus and Vectors 4U, plus 2 of Physics 4U, Chemistry 4U or Biology 4U or recognized equivalents. Visit queensu.ca/admission for additional information regarding requirements and admission to Queen's.

Course **HIGHLIGHTS**

Mathematics and Statistics courses are taught to students throughout the university, not just in Arts and Science. Popular upper-level courses include Computational Data Analysis, Evolutionary Game Theory, Group Theory, Life Contingencies, Modeling Techniques in Biology, Real Analysis, and an Introduction to Coding Theory.

A Year to **CHOOSE**

We often say that our students are like explorers. In Arts and Science, your first year is all about making choices and exploring new paths. Whether you are in Arts, Science or Computing, you will choose your courses from a wide variety of subjects as you settle into university life and become familiar with new styles of learning. By the end of your first year, you will have discovered your areas of interest, passion and success, and will then declare your major. Your first year, whether you consider it to be undeclared, undecided or simply a time for exploration, is bound to be a year full of adventure.

Acquire Skills. Gain Experience. Go Global.
That is a degree from Queen's. quartsci.com

2017 - 2018

Mathematics and Statistics MAJOR MAP

BACHELOR OF SCIENCE (HONOURS): SPECIALIZATION, MAJOR, MINOR | BACHELOR OF COMPUTING (HONOURS): SPECIALIZATION | BACHELOR OF ARTS (HONOURS): MEDIAL, MINOR



Want to enhance your degree?
Consider a certificate in **Geographic Information Science** or explore other **certificates available.**



Visit careers.queensu.ca/majormaps.html for the online version with links!

*This map is intended to provide suggestions for potential activities and career paths, but everyone's abilities, experience, and constraints are different. Build your own map using our online **My Major Map** tool.

Mathematics and Statistics

MAJOR MAP



How to use this map

Use the 5 rows of the map to explore possibilities and plan for success in the five overlapping areas of career and academics. The map just offers suggestions – you don't have to do it all! To make your own custom map, use the [My Major Map](#) tool.

Get started thinking about the future now – where do you want to go after your degree? Having tentative goals (like careers or grad school) while working through your degree can help with short-term decisions about courses and experiences, but also help you keep motivated for success.

Get the help you need

Queen's provides you with a broad range of support services from your first point of contact with the university through to graduation. At Queen's, you are never alone. We have many offices dedicated to helping you learn, think and do.

Ranging from help with academics and careers, to physical, emotional, or spiritual resources – our welcoming living and learning environment offers the programs and services you need to be successful, both academically and personally, and Queen's wants you to succeed! Check out the [Student Affairs website](#) for available resources.



DEPARTMENT OF MATHEMATICS AND STATISTICS

Faculty of Arts and Science
Jeffrey Hall, Room 310
48 University Avenue
613-533-2390
mast.queensu.ca
mathstat.ugchair@queensu.ca

Succeed in the workplace

What employers want

The Canadian Council of Chief Executives list the top 6 skills sought by employers as:

- 1 People skills
- 2 Communication skills
- 3 Problem-solving skills
- 4 Analytical abilities
- 5 Leadership skills
- 6 Industry-specific knowledge

Take the time to think about the unique skills you have developed at Queen's, starting with the skills list here for ideas. Explaining your strengths with compelling examples will be important for applications to employers and further education. For help, check out the [Career Services skills workshop](#).

What can I learn studying MATHEMATICS AND STATISTICS?

- Logical reasoning and problem solving to apply analytical and critical reasoning to solve problems
- Ability to solve problems by applying analytical and critical reasoning
- Understand strong evidence to produce trustworthy data and provide mathematical evidence for conjectures and generalizations
- Knowledge of a broad range of mathematical fields and methods
- Ability to create mathematical models
- Pattern recognition to explore examples and recognize patterns
- Persistence to approach problem solving with openness and a willingness to try multiple approaches
- Oral and written communication to communicate quantitative ideas with clarity and coherence through writing and speaking

Why study in Kingston?

For over 175 years, the Kingston community has been a collection of bright minds. We are proud that our city was named one of the top [Intelligent Communities](#) across the globe, an accolade largely due to the thousands of students who study here every single year. In fact, the BBC has identified Kingston as one of the [GREATEST UNIVERSITY TOWNS](#) in the world, which might be why Instagram named the city '[the happiest place on the planet](#)'. Just a quick drive to Toronto, Montreal, Ottawa and even New York, Kingston is a safe and liveable city. Not only are we known as the [freshwater sailing capital of the world](#), Kingston is arguably the birthplace of hockey. Wondering what to do while you're attending school? Queen's has more clubs per capita than any other university in Canada, and Kingston has more restaurants per capita than any other city in North America; your time here is guaranteed to be 'fresh made daily'.

We're closer than you think.

