

# Statistics



Statistics is the science of designing informative experiments, of displaying and analyzing data, and of drawing valid conclusions from data. There is great demand for those who understand and can apply statistics effectively. Knowledge of statistical methods is useful to scientists and engineers, and to others working in government, research, industry, and medicine. Statistics can also be studied as a subject in its own right.

## TOP 5 REASONS to study STATISTICS

- 1 Statistical thinking provides us with ways of understanding data sets that will help in analyzing 'real-world' problems.
- 2 Our digital age requires training in the STEM subjects, of which statistics is an essential part.
- 3 Our ability to collect huge amounts of data critically requires the development sophisticated ways to draw conclusions and move forward.
- 4 Statistics teaches skills and insights needed to succeed in the ever-changing workplace.
- 5 There is a huge demand for statisticians in academia, government and industry.

**alumni STORY** Rhodes Scholar Nithum Thain completed his BScH in Math, scoring a perfect GPA while being the captain of the fencing team at Queen's, where he won two provincial gold medals. He has enjoyed a wide range of professional opportunities – starting off at Empire Avenue as the VP of Research, working on the algorithms that ran their online gaming platform, and followed by working as a Business Development Analyst at createLIVE.

## TOP ALUMNI JOBS

9% of alumni work in **PHARMACEUTICALS**

15% of alumni work in **INSURANCE**

18% of alumni work in **BANKING, INVESTMENT**

21% of alumni work in **EDUCATION**

**2021-22** major thresholds

Thresholds are made on a competitive basis and are updated annually. To see the thresholds for all programs as well as the latest information, please visit [quartsci.com/planselection](https://quartsci.com/planselection)

add a **CERTIFICATE** to your degree

**Data Analytics**

**Disability and Physical Activity**

**Employment Relations**

**Entrepreneurship, Innovation and Creativity**

**French for Professionals**

**Geographic Information Science**

**Global Action and Engagement**

**Indigenous Languages and Cultures**

**International Studies**

**Media Studies**

**Sexual and Gender Diversity**

**Urban Planning Studies**

[QUartsci.com/certs](https://quartsci.com/certs)

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

[queensu.ca/mathstats](https://queensu.ca/mathstats)

# 2021-2022 Statistics MAJOR MAP\*

BACHELOR OF SCIENCE (HONOURS): MAJOR, MINOR

The coronavirus pandemic may impact how some activities are delivered in 2021-2022. Please check directly with the host of any activity on the map for the latest information.



**What will I learn?**  
A degree in Statistics can equip you with:

- 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
- Ability to work independently and in a team on a project
- Oral and written communication to communicate quantitative ideas with clarity and coherence through writing and speaking

**Where can I go?**  
A degree in Statistics can take your career in many directions. Many students choose to continue their academic inquiry with a Master's. Our students are equipped with a strong foundation for careers in:

- Accounting
- Aerospace
- Auditing
- Banking
- Cryptanalyst
- Data scientist
- Financial analysis
- Mathematician
- Risk analyst
- Survey researcher

Taking time to explore career options, build experience and network can help you have a smooth transition to the world of work after graduation.

# 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.

# QUIP

## QUEEN'S UNDERGRADUATE INTERNSHIP PROGRAM

**START DATES**  
in May, September,  
or January

**POSITIONS**  
are paid and  
full-time

**WORK TERMS**  
are 12-16 months  
long

### PROGRAM OVERVIEW

- Graduate with "Professional Internship" on your degree.
- Learn about current advances, practices and technologies in business and industry.
- Test drive a career, earn a competitive salary, and get real world experience.

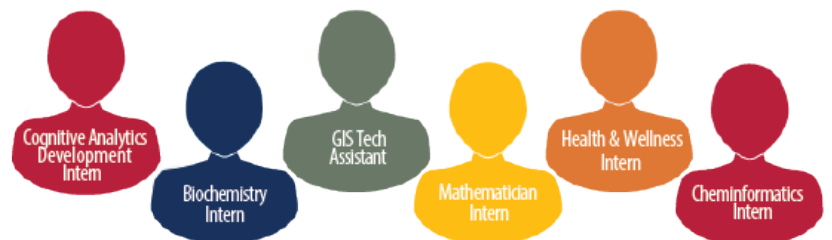
### ELIGIBILITY

- 2nd or 3rd Year Students
- Minimum GPA of 1.9

### WHY QUIP?

- Gain a year of career-related work experience.
- Build network connections.
- Receive support from Queen's staff in job search and during internship.

### SAMPLE PAST INTERNSHIPS



For more information, contact [quip@queensu.ca](mailto:quip@queensu.ca) or visit the [Program Website](#).

## Why study in Kingston?

For 175 years, our community has been more than a collection of bright minds – Queen's has attracted students with an ambitious spirit. Queen's has the highest retention rates, the highest graduation rates, and one of the highest employment rates among recent graduates. We are a research intensive university focused on the undergraduate experience. The BBC has identified us as one of the GREATEST UNIVERSITY TOWNS in the world – and is often awarded the safest city in Canada. We are a university city at the core; just a quick drive to Toronto, Montreal, Ottawa and even New York. A university with more clubs per capita than any other university in Canada, and a city with more restaurants per capita than any other city in North America – you will have the experience of a lifetime at Queen's – and graduate with a degree that is globally recognized among the best.

*We're closer than you think.*



## DEPARTMENT OF MATHEMATICS AND STATISTICS

Faculty of Arts and Science  
Jeffrey Hall, Room 310  
48 University Avenue  
613-533-2390  
[queensu.ca/mathstat](http://queensu.ca/mathstat)  
[mathstat.ugchair@queensu.ca](mailto:mathstat.ugchair@queensu.ca)