Mathematics

Mathematicians discover and study structures that are fascinating in themselves and that have a surprising ability to help us make sense of many facets of the world: the physical, the biological, the economic, the artistic, the psychological, and the philosophical. By designing and analyzing mathematical models, we increase our understanding of natural processes and human events.

REASONS to study MATHEMATICS

- Mathematical thinking develops logical reasoning skills that will help in analyzing 'real-world' problems.
- According to Galileo, mathematics is the language of science and hence essential for all scientific study.
- Our digital age requires training in the STEM subjects, of which mathematics is an essential part.
- Mathematics develops the imaginative faculty and has the aesthetic quality of the humanities.
- The concepts and skills that are gained in the study of Mathematics help you to analyze complex systems.

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

of alumni work in GOVERNMENT

10% of alumni work in TECHNOLOGY

of alumni work in BANKING, INVESTMENT & INSURANCE

33% of alumni work in EDUCATION

2023-24 Plan 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.

Interested in finding out how to augment your degree with Experiential Learning? Learn what opportunities and resources are available for you on the Experiential Learning website. You can also reach out to the team directly at ass.el@queensu.ca.

add a CERTIFICATE

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

Acquire Skills. Gain Experience. Go Global.

That is a degree from Queen's.

queensu.ca/mathstat

Mathematics MAJOR MAP

BACHELOR OF SCIENCE (HONOURS): MAJOR, JOINT HONOURS, MINOR, SPECIALIZATION



1ST YEAR 2ND YEAR **3RD YEAR GET THE** Start going deeper into the discipline of **COURSES** In first year you will have the chance to explore A chance to start grouping courses in areas Mathematics, while considering a minor and/or the foundations of Mathematics along with of interest, or to keep it more general and YOU NEED certificate such as Entrepreneurship, Innovation explore many areas of Mathematics. Meet some electives. and Creativity. Learn more about Certificates and with an <u>Academic Advisor</u> to make sure you Internship options. Attend Majors Night in the Winter term to learn are on track and have planned out your more about Plan options. Want to make sure your academics are where you courses for next year. Interested in getting a head start in learning and want them to be? Visit SASS (Student Academic Support Services) and the Writing Centre for some working in a digital world? Take ASCX 150 and develop future-ready skills! Develop your entrepreneurial skills by participating Z in the Dean's Changemaker Challenge (ASCX ~ 200/300). **GET RELEVANT** Consider applying to do a 12-16 month **QUIP** Look into summer jobs by talking to the dept. Join teams or clubs on campus such as the **EXPERIENCE** or Career Services about work through <u>SWEP</u> or internship between your third and fourth Queen's Math Club, Putnam team, and the Math NSERC. Take more responsibility within different Investigations Program. clubs or extracurriculars. _ _ Consider entrepreneurial opportunities See the AMS Clubs Directory or the Oueen's Get via programs like the **Queen's Innovation** Involved page for more ideas. 0 Connector Summer Initiative (QICSI). CONNECTED Volunteer on or off campus with different Get involved with the Mathematics and Statistics Do targeted networking with alumni working 0 community organizations such as **Best Buddies**. Departmental Student Council (DSC). in careers of interest by joining the LinkedIn WITH THE Σ group Queen's Connects. Check out Career COMMUNITY Services networking workshops. Connect with 9 professors at events or workshops hosted by the DSC. **GET THINKING** Build your intercultural competence by getting Prepare for work or studies in a multi-cultural Is an exchange in your future? Start thinking **GLOBALLY** environment by taking **QUIC's Intercultural** about where you would like to study abroad. involved with other cultures or by practicing or Competency Certificate, and research possible Apply in January for a third year exchange improving your language skills. Ω immigration regulations. through the International Programs Office. _ S Speak to a QUIC advisor to get involved in their Apply for the Math in Moscow Scholarship or programs, events, and training opportunities. the **Budapest Semesters in Mathematics** Z 0 **GET READY** FOR LIFE AFTER Grappling with program decisions? Go to Majors Explore different careers of interest in the Start focusing on areas of interest. Research any further education requirements for Night or get some help wondering about career Career Services Career Advising and Resource GRADUATION

Area. For more information check out <u>Career</u>

Cruising or by finding and connecting with

alumni on LinkedIn.

careers of interest. If needed, prepare to take

and get help thinking about Grad School from

any required tests (like the LSAT or GMAT)

Career Services.

4TH OR FINAL YEAR

In fourth year you will have the chance to participate in research-based courses that can lead to <u>Graduate School</u> or to your future career path. Make sure to finish up all your courses for your major and your optional minor and/or certificate(s).

Interested in working on a real-world problem with an actual client? Take ASCX.
400 and develop your consulting and project-management skills.

Investigate requirements for full-time jobs or other opportunities related to careers of interest. Assess what experience you're lacking and fill in gaps with volunteering, clubs, or internships – check out the Career Services skills workshop for help.

Consider submitting your work to an undergraduate journal like lnguiry@Queen's.

Consider joining professional associations like the <u>Canadian Applied and Industrial Mathematics Society</u>, the <u>Canadian Mathematical Society</u>, and the <u>Statistical Society</u> of <u>Canadian</u>.

Join groups on LinkedIn reflecting specific careers or topics of interest in Mathematics.

International students interested in staying in Canada can speak with an <u>International Student Advisor</u>.

Apply to jobs or future education, or make plans for other adventures. Get help from Career Services with job searching, resumes, interviews, Grad School applications, or other decisions.

What will I learn?

A degree in Math 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 Math 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
- CryptanalysisData science
- Education
- · Financial analysis
- Mathematician
- Risk analysis

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

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.

options from Career Services.

Build your transferable skills in time

management, problem-solving, writing, and

more with Student Academic Success Services.

Mathematics



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. Queen's wants you to succeed! Check out the Student Affairs website for available resources.



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QUIPQUEEN'S UNDERGRADUATE INTERNSHIP PROGRAM

START DATES

in May, September, or January

POSITIONS

are paid and full-time

WORK TERMS

are 12-16 months long

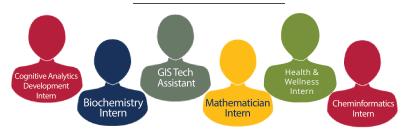


- Graduate with a "Professional Internship" degree
- Learn about current advances, practices and technologies in business and industry.
- Test drive a career, earn a competitive salary, and get real world experience.

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 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 Kingston as one of the GREATEST UNIVERSITY TOWNS in the world – and it is often awarded the safest city in Canada. It is a university city at the core; just a quick drive

quick drive than you to 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 London / 7 hrs CANADA Queen's the experience of a Beijing / 15 hrs lifetime at Queen's Dubai / 14 hrs - and graduate Vancouver / 5 hrs Calgary / 4 hrs with a degree that is globally Halifax / 2 hrs San Francisco / 5.5 hrs Kingston recognized Denver/3 hrs among New York / 1.5 hrs UNITED the best. STATES Dallas / 3.5 hrs Atlanta / 2 hrs Bermuda / 2 hrs