

Geological Sciences

What is Geological Sciences? Geoscientists interpret our natural world. We use geophysics, geochemistry, geobiology, and field geology to understand the modern and ancient Earth. Rocks, minerals, fluids, fossils, mountains, sediments, glaciers, and volcanoes are all fundamental to constraining Earth processes at all scales. Managing water, mineral, and energy resources, designing sustainable strategies for infrastructure and industrial growth, and solving natural and anthropogenic hazards, including climate change, depend on a deep understanding of geological processes.

TOP 5 Reasons To Study Geological Sciences

- 1 Most students in the department gain nearly 400 hours of hands-on experience on field trips.
- 2 We are a small, friendly department. You will get to know your classmates and professors very well.
- 3 The department boasts state-of-the-art facilities, including world-class Geochemistry and Applied Geophysics Labs.
- 4 The Miller Museum, our on-site museum right here at Queen's, is your classroom.
- 5 Our students have the opportunity to study abroad with the International Exchange Program.

Alumni Story

"I can honestly say that the choice to study Geology at Queen's was the single best decision I have ever made. The department provided all the knowledge, opportunities, and support to develop a successful career in the geosciences along with relationships to friends and mentors that will last a lifetime."

-Jonathan Savard, BSc'16

TOP ALUMNI JOBS

21% of alumni work in **ENERGY**

16% of alumni work in **MINING**

15% of alumni work in **EDUCATION**

9% of alumni work in **GOVERNMENT**

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](https://www.queensu.ca/geol/certs)

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](https://www.queensu.ca/geol/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](https://www.queensu.ca/geol/experiential). You can also reach out to the team directly at asc.el@queensu.ca.



Acquire Skills. Gain Experience. Go Global.

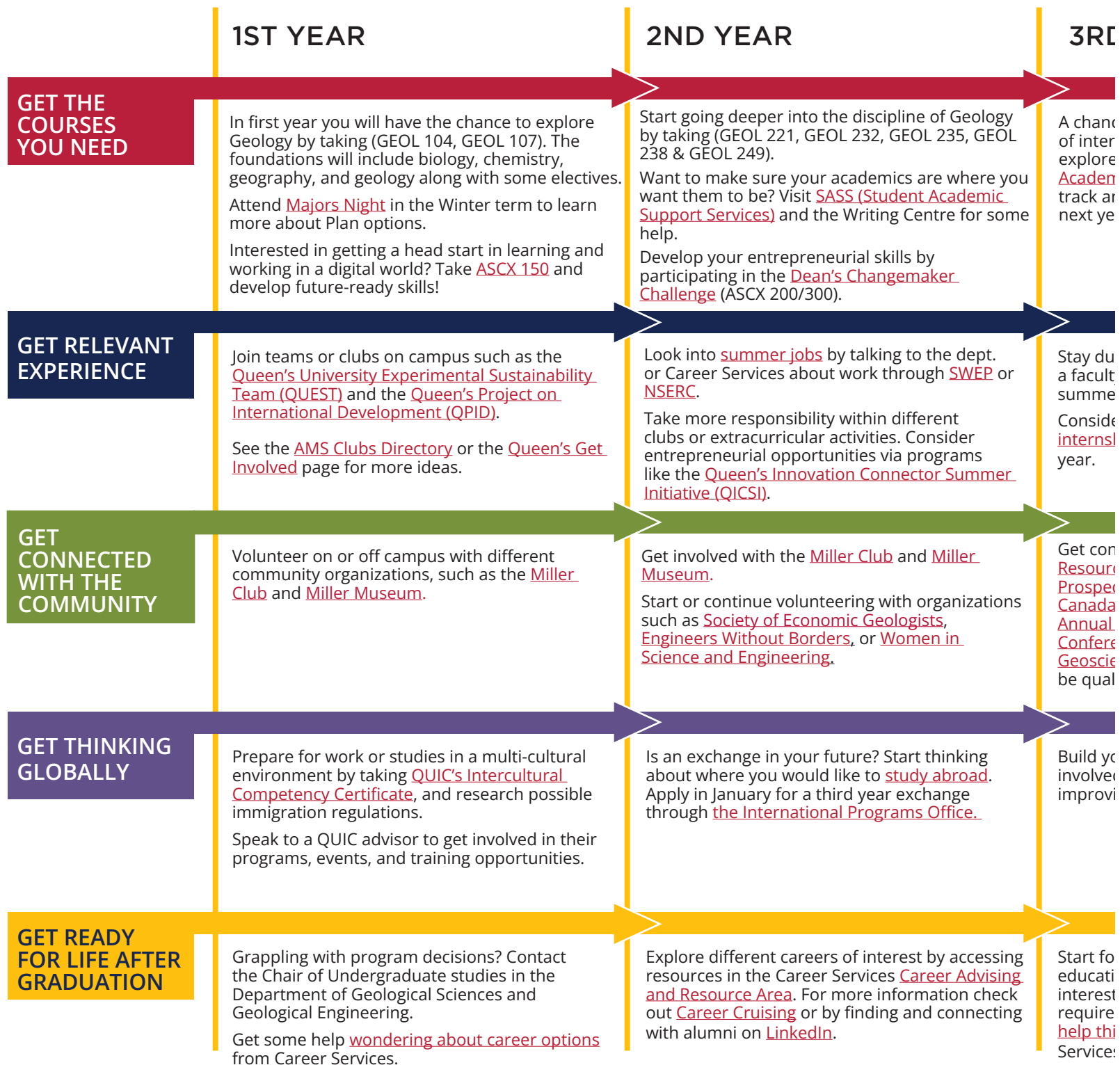
That is a degree from Queen's.

[queensu.ca/geol](https://www.queensu.ca/geol)

2023-2024

Geological Sciences MAJOR

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



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.



3RD YEAR

chance to start grouping courses in areas of interest, or to keep it more general and explore many areas of Geology. Meet with an [Academic Advisor](#) to make sure you are on track and have planned out your courses for next year.

work during the summer as an assistant to a faculty member or apply for an external summer research opportunity.

Consider applying to do a 12-16 month [QUIP Internship](#) between your third and fourth year.

Get connected with GARNET- [Geo Alumni Source Network](#). If interested, attend PDAC- [Inspectors and Developers Association of Canada](#), [Oil and Gas Speakers Series](#), and the [Annual Advances in Earth Sciences Research Conference](#). Investigate the [Professional Geoscientists of Ontario](#) for the requirements to be qualified as a professional Geoscientist.

Improve your intercultural competence by getting involved with other cultures or by practicing or improving your language skills.

Start focusing on areas of interest. Research education requirements for careers of interest. If needed, prepare to take any required tests (like the LSAT or GMAT) and get [help thinking about Grad School](#) from Career Services.

4TH OR FINAL YEAR

In fourth year you will have the chance to participate in research-based courses that can lead to [Graduate School](#) 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 joining professional organizations such as the [Geological Association of Canada](#), the [Canadian Society of Petroleum Geologists](#), the [International Association of Hydrogeologists](#), and the [National Ground Water Association](#).

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

International students interested in staying in Canada can speak with an [International Student Advisor](#).

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.

CONSIDER A 12-16 MONTH QUIP INTERNSHIP

What will I learn?

A degree in Geology can equip you with:

- Knowledge of principles and techniques of the earth sciences
- Practical applications of geological science techniques
- Understanding of the variability of Earth materials and their changes with time and environment.
- Fieldwork skills to design and carry out site investigations to solve problems
- Technical skills to use up-to-date geological analysis tools, equipment, and software
- Research skills to conduct scientific research and analyze quantitative information, develop multiple working hypotheses
- Problem solving to approach a range of problems from various perspectives
- Ability to work independently and in teams on projects.
- Oral and written communication to clearly explain technical information and write reports

Where can I go?

A degree in Geological Science can take your career in many directions. Many students choose to continue their academics with a master's or connect with GARNET to network with alumni. Our students are equipped with a strong foundation for careers in:

- Ecology
- Environmental Geology
- Geological Hazards
- Geomatics
- Geomorphology
- Geophysics
- Geoscience
- Hydrology
- Museum Curation
- Nature Resources
- Paleontology
- Renewable Energy
- Resource Policy Analyst
- Toxicology
- Volcanology

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

Geological Sciences



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.



Department of Geological Sciences and Geological Engineering
Miller Hall, Bruce Wing
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613-533-2597
queensu.ca/geol

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 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.

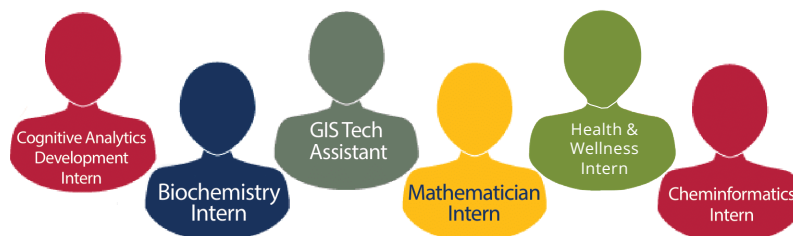
ELIGIBILITY

- 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 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.

