The Biochemistry program provides students with in-depth training in a wide range of essential topics related to fundamental cellular processes, including cellular metabolism, movement, replication, repair, and communication, and the molecular and genetic basis of infection and disease. The Biochemistry program offers opportunities for students to explore rapidly expanding fields in molecular genetics, bioengineering, and regenerative medicine through hands-on training with professors in research labs. This program also provides students with in-depth training needed to prepare them for entry into graduate programs, industry, and a wide array of careers in the biomedical sciences, education, medicine, and biotechnology.

**TOP 5 Reasons To Study Biochemistry**

1. Gain knowledge of chemical and biological processes within the human body and other organisms.
2. Work directly in our laboratories to become familiar with all types of equipment.
3. Build specific skills that employers are looking for in the industry.
4. Learn from top professors, who conduct research on cancer, reproductive health, and infection and disease.
5. Our internship program (QUIP) offers a range of careers to explore and companies to learn from.

**TOP ALUMNI JOBS**

- 5% of alumni work in GOVERNMENT
- 11% of alumni work in PHARMACEUTICALS
- 17% of alumni work in HEALTH CARE
- 40% of alumni work in EDUCATION & RESEARCH

**Alumni Story**

“Biochemistry is a program designed to challenge you but is incredibly rewarding. The courses, especially lab-based courses, teach you desirable skills that are highly transferable, such as data analysis and common biochemistry techniques. For students interested in research, I highly recommend doing a 4th year specialization project - it was this project that made me want to stay for a masters and PhD degree! Although the courses on this Major’s Map may seem like a lot, balance your degree with fun electives and extracurricular clubs to make the most of your university experience (I highly recommend the Biochemistry Department Student Council).”

-Kody Klupt, Biochemistry Specialization Grad

**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

**Acquire Skills. Gain Experience. Go Global.**

That is a degree from Queen's.
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.
In fourth year you will develop skills of inquiry on advancing biochemical applications in industry and academia, and explore governmental regulations and ethics in research practice and information dissemination to the public. SSP students will have the chance to participate in an honours thesis project that can lead to Graduate School or a future career in Medicine, Health Research, or Biotechnology, to name a few.

**What will I learn?**

A degree in Biochemistry can equip you with valuable and versatile skills that employers seek, such as:

- Knowledge of the chemical and biological processes within the human body and other organisms
- Understanding of organic, analytical and physical chemistry and biology (genetics)
- Ability to use statistics and computer programs for data processing
- Familiarity with a laboratory environment and ability to troubleshoot laboratory equipment and instruments
- Quantitative skills to solve quantitative problems
- Oral and written communication to write and summarize reports, along with giving oral presentations
- Time and resource management
- Work experience to help identify careers of interest

**Where can I go?**

A degree in Biochemistry can take your career in many directions. Many students choose to continue their academic inquiry with a Master’s degree. Our students are equipped with a strong foundation for careers in:

- Agricultural sciences
- Biotechnology
- Business
- Drug Development
- Epidemiology
- Genetic counseling
- Health administration
- Food science and technology
- Law
- Medicine
- Nutrition & dietetics
- Public health
- Veterinary medicine

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

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.

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.