Get to know LIFE SCIENCES

The Life Sciences program at Queen’s University is one of our largest Bachelor of Science degree plans on campus. It is in high demand by students who wish to pursue careers in biomedical research and health care focusing on human life. The Life Sciences plan offers courses ranging from human anatomy and physiology to the bacteria and viruses that compromise organ function to the cells that give rise to carcinomas and to the drugs that are used to cure us from infection and disease.

Maclean’s Canadian Universities Guidebook cited Life Sciences at Queen’s as a Standout Program, having strength in “the integration of basic health sciences with natural and physical science.” Students are drawn to the strengths of the program, which include their ability to explore specific interests in Cancer Biology, Cardiorespiratory Sciences, Drug Development and Human Toxicology or Neurosciences.

“One of the most popular programs at Queen’s.”

Degree OPTIONS

Bachelor of Science (Honours)
Major / Minor / Specialization in Environmental Life Sciences, Life Sciences
Bachelor of Science (General)
Bachelor of Science (General) Online
Internship option available

Course HIGHLIGHTS

After taking foundational courses in Biology and Chemistry, students participate in core courses that explore human anatomy/physiology, pharmacology, and microbiology. In the third and fourth years, students can choose from a wide variety of class and laboratory based courses that cover topics including biochemistry, pathology, and epidemiology. Research projects in fourth year for Specialization students can focus on a broad range of fields including Cancer Biology, Cardiorespiratory Sciences, Drug Discovery and Human Toxicology, and Neurosciences, as well as Public Health Sciences, Reproductive Biology and Gastrointestinal Function.

Queen’s ADMISSION

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 two of Biology 4U, Chemistry 4U or Physics 4U.

A Common START

Students in our Faculty are admitted into Arts, Science or Computing but the focus is on a common first year. Through self-exploration, and while you settle into university life, you have the chance to work with our advisors and faculty to uncover where your real interests and opportunities for success are. Sometimes that discovery happens fairly quickly, and for other students it takes some work and time before the “ah-ha!” happens – either way your first year at Queen’s will be a great experience.

That is a degree from Queen’s.  
quartsci.com
2ND YEAR
For the Major, in the Fall take CHEM 281 and PHGY 214. In the Winter, take CHEM 282, MIRC 221, and PHGY 214.

For the Specialization, in the Fall take ANAT 215, CHEM 281, PHGY 214. In the Winter, take ANAT 216, BCHM 218, CHEM 282, MIRC 221, PHGY 214.

Need help mapping all of your core, option, supporting and elective courses (including those not listed above) to make sure you will have what you need to complete your degree? Use the Course Mapping Tool on the Arts and Science website.

GET THE COURSES YOU NEED
For the Major or Specialization, take BIOL 102 and BIOL 103, CHEM 112, MATH 121, and PHYS 117.

Each Plan will have at least one required first-year course, including minors. It is important to take a variety of first-year courses to keep as many pathways open as possible for you going into second year. For details see the Arts and Science Academic Calendar.

GET RELEVANT EXPERIENCE
Join teams or clubs on campus such as the Synthetic Biology Organization, Queen’s First Aid or Universities Allied for Essential Medicine.

See the AMS Clubs Directory or the Queen’s Get Involved page for more ideas.

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

Consider joining professional associations like the Analytical, Life Science & Diagnostics Association or the Professional Society of Microbiology.

CONSIDER A 12-16 MONTH QUIP INTERNSHIP
APPLICATION SUPPORT
Apply to jobs or further education, or make plans for other adventures. Get help from Career Services with job searching, resumes, interviews, grad school applications, or other decisions. Attend Town Hall meetings offered by the Associate Dean, Life Sciences and Biochemistry and provide input into the Program.

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

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 LIFE SCIENCES?

- Knowledge of the cellular structures, organic systems, organic chemistry, and the functions of the human body
- Understanding of statistical research methods, the scientific method and experimental design
- Research skills leading to an ability to draw relevant information out of a large amount of data
- Experience working in a laboratory setting and operating equipment
- Attention to detail to analyze and interpret scientific data
- Problem solving to adopt a systematic approach to problems
- Oral and written communication for procedure laboratory reports and present a report to a group
- Time and resource management

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.

A balanced approach leads to long-term success. While you will learn a lot from your studies, taking time to get relevant experience outside of the classroom, build your network, and gain international experience, will position you to be more competitive in your job search or grad school applications.

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.