Life Sciences

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.

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. Visit queensu.ca/admission for additional information regarding requirements and admission to Queen’s.

Degree PLANS

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

A Year to CHOOSE

We often say that our students are like explorers. In Arts and Science, your first year is all about making choices and exploring new paths. Whether you are in Arts, Science or Computing, you will choose your courses from a wide variety of subjects as you settle into university life and become familiar with new styles of learning. By the end of your first year, you will have discovered your areas of interest, passion and success, and will then declare your major. Your first year, whether you consider it to be undeclared, undecided or simply a time for exploration, is bound to be a year full of adventure.

That is a degree from Queen’s.
**MAJOR MAP**

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

**2017 - 2018 GRADUATION**

**GET THE COURSES YOU NEED**

*For the Major or Specialization, take BIOL 102 and BIOL 103, CHEM 112, MATH 121, and PHYS 117.*

*Build your transferable skills in time management, problem-solving, writing and more with Student Academic Success Services.*

**1ST YEAR**

**2ND YEAR**

*For the Major, it falls take CHEM 281 and PHYS 214. In the Winter, take CHEM 282, MICR 221, and PHYS 214. BCHM 216/3.0 is also required for the degree but can be taken in 3rd or 4th year. For the Specialization, in the Fall take ANAT 215, CHEM 281, PHYS 214. In the Winter, take ANAT 216, BCHM 216, CHEM 282, MICR 221, PHYS 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.*

**3RD YEAR**

*Majors: take 33.0 option units in 3rd and 4th year. Specializations: See course requirements and stream options in the Arts and Science Academic Calendar for the Life Sciences plan requirements. Contact the Program Assistant for additional help. Begin researching and securing a 499 Project for your fourth year.*

**4TH OR FINAL YEAR**

*Use the Academic Advisement Report to ensure you have the courses you need to graduate. Students in Biomedical Discovery, Biomedical Sciences, Cancer Research, Cardiorespiratory Science, Drug Discovery and Human Toxicology, and Neuroscience subplans: ensure that you have declared your plan and have the right courses for the Plan.*

*By fourth year you should be working on your remaining option and elective courses. Make sure to map your minor and / or certificate(s) as well. Apply to graduate in SOLUS.*

**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.*

**GET CONNECTED WITH THE COMMUNITY**

*Volunteer on or off-campus with different community organizations, such as Let’s Talk Science (LTS), Queen’s Union on Tropical Access to Health, or local charities.*

**GET THINKING GLOBALLY**

*Prepare for work or studies in a multi-cultural environment by taking QUC’s Intercultural Competency Certificate, and research possible immigration regulations.*

*Speak to a QUC advisor to get involved in their programs, events, and training opportunities.*

**GET READY FOR LIFE AFTER GRADUATION**

*Grappling with program decisions? Go to Majors Night or get some help wondering about career options from Career Services.*

*Attend Information Sessions in November and January offered by the Associate Dean, Life Sciences and Biochemistry.*

*Explore different careers of interest by reading books in the Career Services Career Advising and Resource Area, such as Academia to Biotechnology. For more information, connect with alums on LinkedIn.*

*Attend Canadians Studying Medicine Abroad offered by the Associate Dean, Life Sciences and Biochemistry.*

**CONSIDER A 12-16 MONTH QUIP INTERNSHIP**

*Consider applying to do a 12-16 month QUIP internship between your third and fourth year.*

*Consider entrepreneurial opportunities via programs like the Queen’s Innovation Connector Summer Initiative (QICI) and the Summer Company Program.*

*Do targeted networking with alumni working in careers of interest by joining the LinkedIn group Queen’s Connects. Check out Career Services networking workshops.*

*Connect with professors at events or workshops hosted by the DSC.*

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

**Where could I go after graduation?**

- Animal research
- Audiology
- Biochemistry
- Biotechnology
- Dentistry
- Drug development
- Environmental management
- Epidemiology
- Ergonomics
- Food science and technology
- Forensics
- Genetics
- Health administration
- Kinesiology
- Law
- Medical and clinical research
- Medical illustration
- Medicine
- Microbiology
- Neuroscience
- Nutrition & dietetics
- Occupational health and safety
- Optometry
- Pharmacy
- Pharmaceutical Industry
- Physical therapy
- Public and private research laboratories
- Public health
- Toxicology

*Some careers may require additional training.*

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

MAJOR MAP

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

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.

Why study in Kingston?

For over 175 years, the Kingston community has been a collection of bright minds. We are proud that our city was named one of the top Intelligent Communities across the globe, an accolade largely due to the thousands of students who study here every single year. In fact, the BBC has identified Kingston as one of the GREATEST UNIVERSITY TOWNS in the world, which might be why Instagram named the city ‘the happiest place on the planet’. Just a quick drive to Toronto, Montreal, Ottawa and even New York, Kingston is a safe and liveable city. Not only are we known as the freshwater sailing capital of the world, Kingston is arguably the birthplace of hockey. Wondering what to do while you’re attending school? Queen’s has more clubs per capita than any other university in Canada, and Kingston has more restaurants per capita than any other city in North America; your time here is guaranteed to be ‘fresh made daily’.

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.

We’re closer than you think.