Develop knowledge of biological functions
Statistical analysis of biological data
Solve quantitative problems
Write, review, and summarize reports/scientific writing
Collect and preserve organisms
Design experimental studies
Observe and make measurements
Present literature and research findings in posters and seminars
Comply with quality control and safety regulations
Analyze and evaluate information

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.

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’.

Intelligent Communities.

Wandering what to do while you’re attending school? Queen’s has more restaurants per capita than any other city in North America, your time here is guaranteed to be ‘fresh made daily’.

Get to know BIOLOGY
There has never been a more exciting time to study Biology, with subjects ranging as broadly as climate change and the conservation of biodiversity, the origin and evolution of life, the form and function of organisms, and the ongoing ‘omics’ revolution at the molecular level.

Our program emphasizes interactive learning with hands-on laboratories, small senior seminar modules and field courses. Our department also offers opportunities for field study around the globe — from Argentina to Africa.

New to Biology is the Biotechnology program that works with living organisms and other biological systems to help us improve our lives by discovering new drugs, improving crop production, and helping to develop novel forms of sustainable energy. Recognizing the interdisciplinary nature of biotechnology, the program will encourage students to take courses from several departments at Queen’s, everything from law to civil engineering to biomedical and molecular sciences. There is also an option to combine this degree with a diploma in Biotechnology from St. Lawrence College.

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

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

Course HIGHLIGHTS
The courses in Biology are very diverse from Ecology and Evolution, Animal and Plant Physiology to Biotechnology. Those interested in understanding biology at the cellular level can choose courses in Cell Biology, Genetics, Comparative Biochemistry and Analytical Genomics. If understanding whole ecosystems is your interest, we have courses in Population and Evolutionary Ecology, Conservation Genetics, Limnology and Aquatic Ecology and several field courses in Canada and abroad. If you are primarily interested in more human focused topics we have Human Genetics and Evolution, Plants for People, Evolution and Human Affairs, and Evolutionary Medicine.
### 1ST YEAR

- In first year take BIOL 102, 103, CHEM 112 and MATH 120 or 121. Interested in the Biology and Psychology Specialization? Take PSYC 100. Interested in the Biology and Mathematics Specialization? Take MATH 110 or 111.
- Each Science Plan will have several required first-year courses, including minors. For details see the Arts and Science Academic Calendar.

### 2ND YEAR

- In second year you can enrol in the Biology Honours Plan or one of three specialized Plans (Biology and Psychology, Biology and Mathematics, or Biotechnology). Core courses such as Diversity of Life, Genetics, and Biostatistics lay the foundation for 3rd and 4th year. Please see the Academic Calendar to ensure you are taking the correct courses.
- Want to enhance your degree? Consider a certificate in Media Studies or explore other certificates available.

### 3RD YEAR

- In third year take core courses in Ecology (BIOL 302 or BIOL 303), Physiology (BIOL 341 or BIOL 339), and Cell Biology (BIOL 338).
- You can focus your study into thematic areas; view suggested courses on the Department website. Check out our field courses (BIOL 307, 308, 317 and 327).
- 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.

### 4TH OR FINAL YEAR

- Thinking about graduate programs? Check out our Honour's Thesis courses (BIOL 357 or BIOL 354) and Research Mentorship courses (BIOL 358-360). If you're looking for a unique study experience, check out our Honours Seminar courses (BIOL 351-356) and 4th year labs (BIOL 401-404).
- 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 SOUS.

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### GET THE COURSES YOU NEED

- Join teams or clubs on campus such as Queen's First Aid, the Queen's Association for Technology in Medicine and Biology (QATMB), the Queen's Genetically Engineered Machine Team (QGEM) and the Queen's Synthetic Biology Organization (SYNLAB). See the AMS Clubs Directory or the Queen's Get Involved page for more ideas.

### GET RELEVANT EXPERIENCE

- Volunteering is a great way to get practical experience and build your CV towards getting Biology jobs during your degree.
- Look into summer jobs by talking to the department or Career Services about work through SWEP or NSERC.

### GET CONNECTED WITH THE COMMUNITY

- Volunteer on or off-campus with different community organizations, such as Queen's Health Outreach, Let's Talk Science, and Women in Science & Engineering at Queen's University (WISE).

### GET THINKING GLOBALLY

- Prepare for work or studies in a multi-cultural environment by taking QCUC's Intercultural Competency Certificate, and research possible immigration regulations.
- Speak to a QCUC 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 considering career options from Career Services.
- Build your transferable skills in time management, problem-solving, writing and more with Student Academic Success Services.

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### CONSIDER A 12-16 MONTH QUIP INTERNSHIP

- 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.
- Participate in Inquiry at Queen's undergraduate student conference.

- Consider joining professional associations like Canadian Society for Molecular Biosciences (BIOTECanada), and the Canadian Society for Ecology, Evolution, and Systematics. Join groups on LinkedIn reflecting specific careers or topics of interest in Biology.

### Where could I go after graduation?

- Academic and applied research
- Agricultural Sciences
- Bioeconomics
- Bioethics
- Bioinformatics
- Biomechanics
- Biotechnology
- Chiropractic
- Community health
- Dentistry
- Environmental conservation
- Epidemiology
- Fisheries science
- Food Industry
- Forensic science
- Genetic counselling
- Health administration
- Marine biology
- Medical research
- Medical technology
- Medicine
- Nursing
- Occupational therapy
- Oceanography
- Optometry
- Pharmaceutical sales
- Pharmacology
- Physical therapy
- Protection and law
- Teaching
- Toxicology
- Veterinary medicine

*Some careers may require additional training.

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