Understanding the evolution of drug resistant diseases draws upon knowledge of genetics, genomics, epidemiology and population ecology. These are all areas of study steeped in both Biology and Mathematics, and this example just one of many that could be used to highlight the growing need for quantitative literacy in academics, medicine, and industry. The Biology and Mathematics Specialization incorporates courses from both departments and combines them with specialized courses in “BioMath” to provide an exceptional learning experience in this emerging field.

**Top 5 Reasons to Study Biology**

1. **SWEF jobs** provide students with true research opportunities, and start after first year.
2. QUBS: an off-site field station that provides students with opportunities to learn hands-on from their environment.
3. Courses are focused on cutting-edge topics in biology.
4. Interact closely with professors in class and during our many events held throughout the year.
5. Apply for an internship, with specific jobs for all types of biological study and research.

**Alumni Jobs**

- **10%** of alumni work in Government & Non-Profit
- **13%** of alumni work in Business & Law
- **16%** of alumni work in Health Care
- **35%** of alumni work in Education

**Alumni Story**

“The Queen’s Biology program was very well-rounded and definitely played a major role in helping to get where I am today. Not only did I learn a lot from the courses, but I also had the opportunity to do an independent research project and spend a summer doing fieldwork at Queen’s University Biological Station.”

- Sharon Zhang, BScH ’13

**2018-19 Thresholds**

- NO AUTOMATIC ACCEPTANCE
- 1.6cGPA (pending list, min C- in BIOL 103)

*Thresholds are made on a competitive basis and are updated annually. For the latest information, please visit QUarts.com.*
**What will I learn?**
A degree in Biology can equip you with valuable and versatile skills, such as:
- Understand the processes of life and the relationships between organisms and their environment.
- Develop knowledge of biological functions and processes.
- Use laboratory equipment and instruments effectively.
- Design and conduct experiments to test hypotheses.
- Collect and analyze data to support scientific conclusions.
- Present and communicate scientific information clearly and effectively.
- Work collaboratively with others in diverse settings.

**Where can I go?**
A degree in Biology can take your career in many directions. Many students choose to continue their academic inquiry with a Master's or Ph.D. degree. Our students are equipped with a strong foundation for careers in:
- Agricultural Sciences
- Biotechnology
- Bioinformatics
- Environmental conservation
- Environmental sustainability
- Epidemiology
- Fisheries science
- Government regulators
- Marine biology
- Medical technology
- Medical research
- Pharmaceutical sales
- Pharmacology
- Protection and law
- Teaching
- Toxicology

**Get the courses you need**
In your first year, you will have the chance to explore the foundations of Biology and Mathematics in biology, chemistry, geography, math and geology along with some electives. See the back page for specific courses to consider.

**Get relevant experience**
Volunteer with a local organization such as Queen's Health Outreach, Let's Talk Science, and Women in Science & Engineering at Queen's University (WISE).

**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.

**Get thinking globally**
Prepare for work or studies in a multi-cultural environment by taking QUIC's International Competency Certificate, and research possible immigration regulations.

**Get ready for life after graduation**
If you are considering career options, visit the Career Services Information Area, such as Queen's Health Outreach, Let's Talk Science, and Women in Science & Engineering.

**1ST YEAR**
- **In first year** you will have the chance to explore the foundations of Biology and Mathematics in biology, chemistry, geography, math and geology along with some electives.
- **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 QUIC’s International Competency Certificate, and research possible immigration regulations.
  - Speak to a QUIC advisor to get involved in their programs, events, and training opportunities.
- **Get the courses you need**
  - In first year you will have the chance to explore the foundations of Biology and Mathematics in biology, chemistry, geography, math and geology along with some electives.
  - See the back page for specific courses to consider.
- **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.

**2ND YEAR**
- **Start going deeper into the discipline** of Biology and Mathematics, while considering a minor and/or certificate such as Media Studies. Attend Degree + in the Fall term to learn more about Certificates and Internship options.
- **Volunteering is a great way to get practical experience** and build your CV towards getting Biology jobs during your degree.
- **Consider applying to research opportunities** at Queen's University Biological Station or through the Biology Undergraduate Summer awards.
- **Consider applying to do a 12-16 month QUIC internship** between your third and fourth year.

**3RD YEAR**
- **A chance to start grouping courses** in areas of interest, or to keep it more general and explore many areas of Biology and Mathematics. Meet with an Academic Advisor to make sure you are on track and have planned out your courses for the next year — for some ideas, see the back page.
- **Volunteering is a great way to get practical experience** and build your CV towards getting Biology jobs during your degree.
- **Consider applying to research opportunities** at Queen's University Biological Station or through the Biology Undergraduate Summer awards.
- **Consider applying to do a 12-16 month QUIC internship** between your third and fourth year.

**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 degree and your optional certificate(s).
- **Investigate requirements** for full-time jobs or other opportunities related to careers of interest. Assess what experience you’re lacking and fill gaps with volunteering, clubs, or internships.
- **Consider joining professional associations** like Canadian Society for Molecular BioSciences, BIOTECanada, and the Canadian Society for Ecology and Evolution.
- **Join groups on LinkedIn reflecting specific careers or topics of interest in Biology.**
- **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.

**What can I do?**
A degree in Biology can take your career in many directions. Many students choose to continue their academic inquiry with a Master’s or Ph.D. degree. Our students are equipped with a strong foundation for careers in:
- Agricultural Sciences
- Biotechnology
- Bioinformatics
- Environmental conservation
- Environmental sustainability
- Epidemiology
- Fisheries science
- Government regulators
- Marine biology
- Medical technology
- Medical research
- Pharmaceutical sales
- Pharmacology
- Protection and law
- Teaching
- Toxicology

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