Sample Year by Year

1ST YEAR
- BIOL 102/3.0
- BIOL 103/3.0
- MATH 110/6.0 or MATH 111/6.0
- CHEM 112/6.0
- 6.0 units from MATH 120/6.0, MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0)
- 6.0 units of electives

2ND YEAR
- BIOL 201/3.0
- BIOL 202/3.0
- BIOL 205/3.0
- BIOL 206/3.0
- BIOL 243/3.0 or STAT 269/3.0
- MATH 221/3.0 or MATH 280/3.0
- MATH 225/3.0 or MATH 231/3.0
- STAT 268/3.0 or STAT 351/3.0
- 6.0 units of electives

3RD YEAR
- BIOL 300/3.0
- BIOL 330/3.0
- BIOM 300/3.0
- MATH 339/3.0
- 3.0 units from BIOL 339/3.0, BIOL 334/3.0, BIOL 341/3.0
- 3.0 units from MATH or STAT at the 300 level or above
- 12.0 units of electives

4TH YEAR
- 6.0 units from BIOL at the 300 level or above or from BIOL options
- 3.0 units of BIOL
- 3.0 units of MATH or STAT at the 300 level or above
- 6.0 units of MATH or STAT
- 12.0 units of electives

Note that degree requirements are revised regularly. The most current requirements, including course lists and options, are available in the Academic Calendar at: Quartsci.com/academic-calendar
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. See the back page for specific courses to consider. Attend Majors Night in the Winter term to learn more about Plan options.

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 x in the Fall term to learn more about Certificates and Internship options. Want to make sure your academics are where you want them to be? Visit SASS (Student Academic Support Services) and the Writing Centre for some help.

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 next year — for some ideas, see the back page.

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).

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. Attend Majors Night in the Winter term to learn more about Plan options.

GET RELEVANT EXPERIENCE

- 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 (QSYNBIO). See the AMS Clubs Directory or the Queen's Get Involved page for more ideas.
- 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 OWEP or NSERC.
- 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 QUIP internship between your third and fourth year.
- 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 or to your future career or topics of interest in Biology.

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 involved with the Departmental Student Council (DSC). Start or continue volunteering with organizations.
- If interested, attend conferences and talks like the Canadian Undergraduate Conference on Healthcare (CUCOH).
- Do some 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 workshop hosted by the DSC.
- Consider joining professional associations like the Canadian Society for Molecular Biosciences - BOTECanada, and the Canadian Society for Ecology and Evolution.
- Join groups on LinkedIn reflecting specific careers or topics of interest in Biology.
- International students interested in staying in Canada can speak with an International Student Advisor.

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.
- Is an exchange in your future? Start thinking about where you would like to study abroad. Apply in January for a 3rd year exchange through the International Programs Office.
- Look into a BIOL 307/317 Field Biology International Program.
- Build your intercultural competence by getting involved with other cultures or by practicing and improving your language skills.
- 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.
- Taking time to explore career options, build experience and network can help you have a smooth transition to the world of work after graduation.

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.
- Explore different careers of interest by reading books in the Career Services Information Area, such as Opportunities in Biotechnology Careers. For more information check out Career Cruising or by finding and connecting with alumni on LinkedIn.
- Start focusing on areas of interest. Research education requirements for careers of interest. If needed, prepare to take any required tests (like the MCAT or GMAT) and get help thinking about Grad School from Career Services.

WHAT WILL I LEARN?

A degree in Biology can equip you with valuable and versatile skills, such as:
- Develop knowledge of biological functions
- Use laboratory equipment and instruments
- Gain hands-on experience studying biology in the field
- Comply with quality control and safety regulations
- Collect and preserve organisms
- Design experimental studies
- Present literature and research
- Findings in posters and seminars
- Observe and make measurements
- Write, review, and summarize reports or scientific writing
- Analyze and evaluate information
- Statistical analysis of biological data
- Solve quantitative problems

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. Our students are equipped with a strong foundation for careers in:
- Agricultural Sciences
- Analytics
- Bioeconomics
- Bioinformatics
- Environmental conservation
- Environmental sustainability
- Epidemiology
- Fisheries science
- Government regulators
- Marine biology
- Medical technology
- Medical research
- Pharmaceutical sales
- Pharmacology
- Protection and law
- Teaching
- Toxicology

BIOLOGY AND MATHEMATICS SPECIALIZATION MAP