The four-year Biotechnology (BTEC) degree plan is a Specialization Plan with a focus on this highly active and rapidly changing area of applied research. The plan balances conceptual and practical learning experiences at a broad range of scales of biological organization — from microbes to ecosystems — embracing the diversity of life forms that can be used to improve agriculture, medicine and the environment, among other things.

Note that degree requirements are revised regularly. The most current requirements, including course lists and options, are available in the Academic Calendar at: QuartsSci.com/academic-calendar

2018-19 thresholds

1.9cGPA PENDING LIST

NO AUTOMATIC ACCEPTANCE

*Thresholds are made on a competitive basis and are updated annually. For the latest information please visit QuartsSci.com
**BIOTECHNOLOGY SPECIALIZATION MAP**

**SPECIALIZATION BACHELOR OF SCIENCE (HONOURS)**

### 1ST YEAR

- **Get the Courses You Need**
  - In first year you will have the chance to explore the foundations of Biology in biology, chemistry, geography 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

- **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 (QITMB), the Queen's Genetically Engineered Machine Team (QGEM) and the Queen's Synthetic Biology Organization (QSYNBO). 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 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 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 considering career options from Career Services. Build your transferable skills in time management, problem-solving, writing and more with Student Academic Support Services.

### 3RD YEAR

- **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
    - 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/ 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
    - Agrobiotechnology
    - Bioinformatics
    - Biotechnology
    - Biophysics
    - Fisheries science
    - Government regulators
    - Medical research
    - Medical technology
    - Patent agents
    - Pharmaceutical sales
    - Pharmacology
    - Technology analysts
    - Translational research

### 4TH OR FINAL YEAR

- **What will I learn?**
  - A degree in Biology will equip you with valuable and versatile skills, such as:
    - Develop knowledge of biological functions
    - Use laboratory equipment and instruments
    - 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/ 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
    - Agrobiotechnology
    - Bioinformatics
    - Biotechnology
    - Biophysics
    - Fisheries science
    - Government regulators
    - Medical research
    - Medical technology
    - Patent agents
    - Pharmaceutical sales
    - Pharmacology
    - Technology analysts
    - Translational research

- **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 @ Queen's undergraduate student conference.

- **International students interested in staying in Canada can speak with an International Student Advisor.**

- **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.**

### SPECIALIZATION MAP

- **1ST YEAR**
  - Attend Majors Night in the Winter term to learn more about Plan options.
  - See the back page for specific courses to consider.

- **2ND YEAR**
  - Start going deeper into the discipline of Biology, while considering a minor and/or certificate such as French for Professionals. Attend Degree Options 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. 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).