

# Biology (BSc, iBSc)

## Admission Requirements

### Prerequisite Requirements for BSc/iBSc:

- ENG4U, MHF4U, SBI4U, SCH4U
- Recommended: SPH4U
- Expected minimum admission average: low 80s – mid 80s

### Program Overview

The Biology program is York's longest-established scientific program, with internationally-recognized teaching faculty and particular strengths in:

- **Biochemistry**
- **Molecular Biology**
- **Cell Biology**
- **Physiology**
- **Ecology**
- **Population Biology**
- **Genetics**

Students may choose to sample courses from a variety of sub disciplines, or they may develop expertise in a particular area by completing a more structured "area of concentration". Focused on developing independent analytical and applied skills through research projects and laboratory investigations, studies in Biology at York will give you a firm grounding in the core concepts of Biology as well as sound scientific training in the techniques and methods of biological research at all scales, from molecules to ecosystems. The Biology program at York offers two flexible degree paths, the Bachelor of Science and Honours Programs.

**Bachelor of Science (90 credits, normally over three years):** A flexible, multi-disciplinary program offering you a broad range of studies in biology.

**Honours Programs (120 credits, normally over four years):** You may complete a Specialized Honours degree in Biology, or in the Biotechnology, or Biomedical Science streams. You may also complete an Honours Double Major, combining your Honours studies in Biology with another Major in Science (for example, Chemistry, Physics, Kinesiology & Health Sciences, or Psychology).

An International BSc (iBSc) is also available which combines international experience and language study with a Biology major.

### First Year Biology Major Courses:

- Biology
- Chemistry
- Calculus
- Computer Use
- General Education Course

### Second Year Biology Major Courses:

- Ecology
- Animal Biology
- Plant Biology
- Organic Chemistry
- Statistics for Biologists
- Genetics and Evolution
- Cell Biology and Biochemistry

### Upper Year Biology Major Course Options:

- Genetics
- Evolution
- Neurobiology
- Immunobiology
- Molecular Biology
- Plant Physiology
- Animal Physiology
- Animal & Plant Ecology
- Animal Development
- Conservation Biology
- Biotechnology
- Field Course

## Experiential Education

The Faculty of Science provides a rich diversity of opportunities for undergraduate students to engage in Experiential Education. The Internship Program provides students in this program with the opportunity to integrate their classroom learning with hands-on, paid, work experiences related to their field of study. Internship students will begin their work term(s) after their third year of classroom study and can take part in 4, 8, 12, or 16 months of work before returning to school to complete their studies.

Here are just a few of the companies you could have the opportunity to work for:

- Sanofi Pasteur
- Health Gene Corporation
- Parks Canada
- City of Toronto
- Grande Prairie Regional College

Visit [yorku.ca/science/students/experiential-education/](https://yorku.ca/science/students/experiential-education/) for more information.



## Career Pathways for Biology

Graduates are well prepared for careers in medicine, biotechnology, management and policy development, medical and biological research, environmental biology, ecology and a diversity of other fields in Toronto's many Biology-related industries. Your studies in Biology at York will prepare you for a very diverse range of career options.

- Biology Research – academic, government, industry
- Biologist
- Biostatistician
- Botanist
- Medical Research
- Education – elementary, high school, college, university
- Professional Schools – Medicine, Dentistry, Pharmacy, Law, Business, etc.
- Health Sciences – nurse, chiroprapist, biomedical technician, genetic counselor, diagnostic histologist, etc.
- Environmental – conservationists, government agencies, environmental consultants, zoo keepers, etc.
- Postgraduate Studies/Academic Career