

# Biology

**BSc, iBSc** | [www.yorku.ca/science/biology](http://www.yorku.ca/science/biology)

## Admission Requirements

- ENG4U, MHF4U, SBI4U, SCH4U
- **Recommended:** SPH4U
- **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 subdisciplines, 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 Courses

- Biology
- Chemistry
- Calculus
- Computer Science
- Non-Science Requirement

## Second Year Courses

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

## Upper Year Options

- Human Molecular Genetics
- Evolution
- Neurobiology
- Immunobiology
- Molecular Biology
- Animal Physiology
- Animal & Plant Ecology
- Animal Development
- Conservation Biology
- Microbiology
- Biotechnology
- Population Genetics
- Histology
- Integrative Reproduction
- Scientific Integrity
- Comparative Chordate Anatomy
- Field Course

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## Experiential Education

Full-time Biology students at York are eligible to join the Science Co-op Program. This program allows you to gain professional, paid work experience related to your program of study. During work terms, you will have the opportunity to apply your classroom learning in a real work environment. The program provides flexibility, allowing you to choose how much work experience you would like to gain (minimum 8 months, maximum 20 months) throughout your degree.

Here are just a few of the companies our students have worked with in the past:

- **Sanofi Pasteur**
- **Health Gene Corporation**
- **Parks Canada**
- **City of Toronto**
- **Apotex**

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

## Possible Career Pathways

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 diverse range of career options and professional fields:

- |                             |  |
|-----------------------------|--|
| • Biology Researcher        | • Business                                     |
| • Biostatistician           | • Dentistry                                    |
| • Botanist                  | • Education                                    |
| • Ecologist                 | • Environmental Sciences and Conservation      |
| • Geneticist                | • Food Sciences                                |
| • Genetic Counsellor        | • Health Sciences and Medicine                 |
| • Health & Safety Evaluator | • Law  |
| • Health Educator/Advocate  | • Pharmaceuticals                              |
| • Lab Technician            | • Postgraduate Studies and Professional School |
| • Medical Writer            |  |
| • Microbiologist            |  |

All York University students also have access to **The Career Centre**. Our Career Centre team provides resources and supports including, career fairs, employer networking events, skills development workshops, career counselling, and interview practice sessions.

Visit [careers.yorku.ca](http://careers.yorku.ca) to learn more.

## Get In Touch

### Domestic Students:

[science@yorku.ca](mailto:science@yorku.ca)

### International Students:

[intlsci@yorku.ca](mailto:intlsci@yorku.ca)

## Follow Us



@yorkuscience



"York's biology program offers outstanding laboratory and research experiences, and opportunities to network. As a biology major, I took numerous courses in diverse areas from biochemistry, chemistry, physiology, molecular genetics and cell biology, and evolution to aid my future career as a teacher. I hope to offer the same care, support, and guidance my professors provide me."

**Alexandra,  
Biology Student**