



What is Biology?

Biology is the study of living organisms and involves observation and analysis of the tree of life. The foundation of biology is based upon the core concepts of evolution: natural selection and speciation. The study of biology is applicable to all facets of life, helping address such major problems as conservation, overpopulation, pollution, medicine and disease.

Why UTM Biology?

- Exciting programs in all major biological areas
- Learn from the best – dedicated teaching staff including over two dozen faculty and sixty graduate students and post-doctoral fellows
- Learn about the latest discoveries & research – our faculty do state-of-the-art research, which translates directly into our course curriculum
- Valuable first-hand experience in lab, field and experiential learning courses

Career Paths

- Research
- Education
- Medical, Dental, Pharmacy, Nursing,
- Physical & Occupational Therapy and Counseling
- Business & Industry (pharmaceuticals, food & dairy, biotechnology)

First-Year Biology at UTM

All biology program students complete the following courses in their first year:

- **BIO152H5** – Intro to Evolution & Evolutionary Genetics
- **BIO153H5** – Diversity of Organisms
- **CHM110H5** – Chemical Principles I*
- **CHM120H5** – Chemical Principles II*
- **MAT134Y5** – Calculus for Life Sciences

*Chemistry is not required for the Biology Minor program; but without Chemistry your upper year courses will be limited.

How do you study general Biology Programs at UTM?

- **Biology Specialist** (13.5 credits)
- **Biology Major** (8.0 credits)
- **Biology Minor** (4.0-4.5 credits)

Courses to Look Forward To!

The department of Biology offers more than 50 undergraduate courses. Students in the general Biology complete a series of broad second year courses and they flexibility in their upper years to customize courses to their specific interest.

- **BIO202H5:** Introduction to Animal Physiology
- **BIO203H5:** Introduction to Plant Morphology and Physiology
- **BIO205H5:** Ecology
- **BIO206H5:** Introductory Cell & Molecular Biology
- **BIO207H5:** Introductory Genetics
- **BIO210Y5:** Fundamentals of Human Anatomy & Physiology
- **BIO304H5:** Integrative Animal Physiology I
- **BIO310H5:** Integrative Animal Physiology II
- **BIO314H5:** Laboratory in Cell & Molecular Biology
- **BIO315H5:** Human Cell Biology
- **BIO318Y5:** Animal Behaviour
- **BIO326H5:** Ornithology
- **BIO333H5:** Freshwater Ecology
- **BIO341H5:** Advanced Genetics
- **BIO342H5:** Evolutionary Biology
- **BIO380H5:** Human Development
- **BIO370Y5:** Microbiology
- **BIO375H5:** Introductory Medical Biotechnology
- **BIO403H5:** Development Neurobiology
- **BIO407H5:** Behaviour Genetics
- **BIO412H5:** Climate Change Biology
- **BIO434H5:** Sensory Biology
- **BIO476H5:** Molecular Basis of Disease
- **BIO477H5:** Molecular Biology of Gene Expression and Cancer

Experiential Learning in Biology

We offer a wide-range of unique learning opportunities across all of our disciplines:

- **Research Opportunity Program (ROP):** participate in original research with a professor, learn research methods, and share in the excitement and discovery of acquiring new knowledge
- **BIO481 - Senior Research Project:** conduct an independent research project under the supervision of a faculty member; learn how to design, carry out, and analyze and evaluate results/data
- **BIO400 – Internship:** learn to apply biology knowledge and skills through a 200-hour work placement in the private or public sector
- **BIO416 – Field Courses:** Students may choose from a variety of field courses over a two-week period in the summer. In addition to tuition fees, students are expected to pay for room and board
- **BioPath Professional Development Program:** two-year program open to all biology students. The program aims to facilitate the development of transferrable skills that will help students be successful beyond university.

Departmental Events

The Biology Department offers exciting opportunities for students to expand their interest in biology through a weekly departmental seminar featuring exciting guest speakers from across North America as well as our popular “Walk with your Professor” series where participants are led on a nature walk through the beautiful Mississauga campus.

For more information on career options, please visit the Career Centre site <http://www.utm.utoronto.ca/careers/>.

For more information on these programs, please explore our Academic Calendar - <https://student.utm.utoronto.ca/calendar/calendar.pl>.