

# MAJOR IN BIOLOGY

Recent discoveries and new technologies are revolutionizing the biological sciences, placing increasing emphasis on integrating knowledge across all levels of organization, from molecules to ecosystems.

Our programs give students both the intellectual tools and the hands-on experience they need to generate new knowledge and contribute to debates on issues as diverse as land management, conservation and endangered species, disease prevention and management, stem cell research and genetically modified organisms.

Learning takes place through traditional classroom instruction, innovative laboratory projects with state-of-the-art technologies and a strong basic research program in which undergraduate students at all levels are intensively mentored in a research lab.

The Honours program in biology provides the opportunity for in-depth study within one or more biological disciplines. Students can concentrate in a particular area by choosing one of three options—cellular and molecular biology, physiology and ecology, evolution and behaviour. This route includes a compulsory independent research project designed to prepare students for graduate studies. Alternatively, students can choose to pursue diverse interests by selecting a general course of study that will include a number of advanced courses.

The major in biology introduces students to cell biology, genetics, evolution, ecology and physiology (both plant and animal). The major is combined with either another major or a minor and allows students to pursue diverse interests while opening the door to graduate studies or a career in the life sciences.

The minor in biology is a flexible program that allows students to select a subset of biology courses.

This program is offered in English and in French.

## Program Requirements

The table below includes only the discipline-specific courses. Please refer to the Academic Regulations (<https://www.uottawa.ca/about-us/policies-regulations/academic-regulations/b-2-program-studies/>) for information on the Honours bachelor's with double major and the Honours bachelor's with major and minor.

Co-operative education is available when taken as part of an honours degree.

The French immersion stream is available when taken as part of an honours degree.

Requirements for this program have been modified. Please consult the 2020-2021 calendars (<http://catalogue.uottawa.ca/en/archives/>) for the previous requirements.

BIO 1130	Introduction to Organismal Biology	3 Units
BIO 1140	Introduction to Cell and Molecular Biology	3 Units
CHM 1311	Principles of Chemistry	3 Units
CHM 1321	Organic Chemistry I	3 Units
GEO 1111	Introduction to Earth Systems	3 Units
MAT 1330	Calculus for the Life Sciences I	3 Units
MAT 1332	Calculus for the Life Sciences II	3 Units

BCH 2333	Introduction to Biochemistry	3 Units
BIO 2129	Ecology	3 Units
BIO 2133	Genetics	3 Units
BIO 2135	Animal Form and Function	3 Units
BIO 2137	Introduction to Plant Science	3 Units
CHM 2120	Organic Chemistry II	3 Units
MAT 2379	Introduction to Biostatistics	3 Units
18 optional course units in biology (BIO), biopharmaceutical science (BPS) or environmental science (EVS) at the 3000 or 4000 level, BCH 3120, BCH 3125, BCH 3356, BCH 4122, BCH 4125, BCH 4188, SCI 3101		18 Units

**Total:** **60 Units**