LIFE SCIENCES (BIOLOGICAL AND AGRICULTURAL) MAJOR (B.SC. (AG.ENV.SC.)) (42 CREDITS)

Offered by: Natural Resource Sciences (Faculty of Agricultural and Environmental Sciences)
Degree: Bachelor of Science (Agricultural and Environmental Sciences)
Program credit weight: 42

Program Description

The Life Sciences (Biological and Agricultural) Major provides a strong foundation in the basic biological sciences. It will prepare graduates for careers in the agricultural, environmental, health, and biotechnological fields. Graduates with high academic achievement may go on to postgraduate studies in research, or professional programs in the biological, veterinary, medical, and health sciences fields.

For information on academic advising, see: http://www.mcgill.ca/macdonald/studentinfo/advising

Program Prerequisites

Please refer to "Faculty Information and Regulations" > "Minimum Credit Requirements", in this Course Catalogue for prerequisites and minimum credit requirements.

Default Specialization: Students who do not select a Specialization will automatically be assigned to the Life Sciences (Multidisciplinary) Specialization upon entering U2.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Required Courses (33 credits)

Expand allContract all

Course	Title	Credits
AEBI 210	Organisms 1.	3
AEBI 211	Organisms 2.	3
AEBI 212	Evolution and Phylogeny.	3
AEHM 205	Science Literacy.	3
AEMA 310	Statistical Methods 1.[1]	3
ANSC 400	Eukaryotic Cells and Viruses.	3
LSCI 202	Molecular Cell Biology.	3
LSCI 204	Genetics.	3
LSCI 211	Biochemistry 1.	3
LSCI 230	Introductory Microbiology.	3
PARA 438	Immunology.	3

[1] Other appropriate Statistics courses may be approved as substitutes by the Program Director.

Complementary Courses (9 credits)

9 credits of the complementary courses selected from:

Expand allContract all

Course	Title	Credits
ANSC 234	Biochemistry 2.	3
ANSC 250	Introduction to Livestock Management	3
ANSC 312	Animal Health and Disease.	3
ANSC 323	Mammalian Physiology.	3
ANSC 324	Developmental Biology and Reproduction.	3
ANSC 326	Fundamentals of Population Genetics.	3
ANSC 420	Animal Biotechnology.	3
BINF 511	Bioinformatics for Genomics.	3
BTEC 306	Experiments in Biotechnology.	3
ENVB 210	The Biophysical Environment.	3
ENVB 222	St. Lawrence Ecosystems.	3
FAES 300	Internship 2.	3
LSCI 451	Research Project 1.	3
LSCI 452	Research Project 2.	3
MICR 331	Microbial Ecology.	3
MICR 338	Bacterial Molecular Genetics.	3
MICR 341	Mechanisms of Pathogenicity.	3
MICR 450	Environmental Microbiology.	3
NRSC 333	Pollution and Bioremediation.	3
PARA 410	Environment and Infection.	3
PARA 424	Fundamental Parasitology.	3
PLNT 304	Biology of Fungi.	3
PLNT 353	Plant Structure and Function.	3
PLNT 426	Plant Ecophysiology.	3
PLNT 435	Plant Breeding.	3

Specialization

At least one specialization of 18-24 credits from:

Specializations designed to be taken with the Life Sciences (Biological and Agricultural) Major:

- Animal Biology
- Animal Health and Disease
- Life Sciences (Multidisciplinary)
- Microbiology and Molecular Biotechnology

Note: For a complete list of specializations offered for students in the Bachelor of Science in Agricultural and Environmental Sciences, please refer to "Browse Academic Units & Programs" > "Bachelor of Science (Agricultural and Environmental Sciences) - B.Sc.(Ag.Env.Sc.)" > "Specializations" in this eCalendar.

Electives

To meet the minimum credit requirement for the degree.