

Co-op Program ECOLOGY



This program provides a unique learning experience with a strong emphasis on hands-on, practical activities. Our innovative global education model can be described as a gradual learning process towards autonomy. This approach blends traditional instruction, project experience, personalized and assisted self-training.

From the very start, our students find themselves immersed in the studies of various flora and fauna communities as well as their interrelations, thanks to a study program that alternates practical work experience and formal academic terms tailored to the particular market requirements and expectations. This solid university training, complemented by pertinent work experience, prepares general environmentalists as well as biotic and abiotic resource management generalists. Thus, our students are able to understand ecological interrelations, to develop systematic thinking and, of course, to consolidate acquired knowledge.

WHAT OUR STUDENTS CAN DO FOR YOU

Techniques

- Plant harvesting
- Capturing and marking/tagging animals
- Telemetry
- Plant and animal taxonomy
- Specimen preservation
- Sampling (soil and water)
- Physicochemical analyses

Education and communication

- Habitat study
- Animation
- Communication and popularization of scientific data
- Conception of educational activities

Project management

- Sampling design
- Computer-aided data analysis and interpretation
- Water quality monitoring
- Study of soil biodiversity
- Protocol update and optimization
- Behavioural ecology
- Democology
- Impact evaluation on natural environment



KNOWLEDGE AND SKILLS

Term	Description
S-1	Introduction to biology Properties of biological molecules; eukaryotic cell; anatomy, morphology, reproduction, plant classification; international nomenclature; ecosystems; relations between organisms; study of microorganisms.
S-2	Handling and animal life Properties of matter constituents; dosage methods; descriptive and inferential statistic; basic biochemistry tools; database software utilization; handling of microorganisms; basic analytical and biochemical methods; evolution of life forms on Earth; external and internal morphology of species; animal classification.
S-3	Work techniques and further theoretical studies Field-data gathering techniques; computer-aided biometric notions; plant distribution and abundance; co-evolutionary relations between animals and environment; orientation in studies in competition; Foundations of genetics; animal taxonomy.
S-4	Field experiences Sampling techniques in aquatic ecology; Plant sampling, ecology and taxonomy; biotic and abiotic relations in the aquatic ecosystem; identification of bird species; observation tools use and techniques; data logging techniques; characteristics of Quebec's ecological regions.
S-5	Plant world and animal evolution Natural selection, gene flow, experimentations in plant physiology; animal physiology principles; experiment protocols, analysis and discussion of results.
S-6 S-7	Practical application of theory Soil ecology; morphological and physiological variations in plant species across environmental gradients in a natural selection context; measuring and sampling methods; meta-analyses, interpretation and communication of results.

ORGANIZATION OF STUDY (S) AND WORK TERM (W)

1 st year			2 nd year			3 rd year			4 th year			5 th year
FALL	WIN	SUM	FALL	WIN	SUM	FALL	WIN	SUM	FALL	WIN	SUM	FALL
S-1	S-2	W-1	S-3	W-2	S-4	W-3	S-5	-	S-6			
	S-1	-	S-2	S-3	W-1	S-4	W-2	S-5	W-3	S-6	-	S-7