



## ENVIRONMENTAL STUDIES

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The undergraduate program in environmental studies prepares global professionals with a comprehensive vision of environmental issues. As it balances theory with case study learning, applied projects and hands-on experience during work terms, this program helps students develop a toolbox of specific, workable skills in natural and social sciences, economics, technology, legislation and health studies.

Students learn to be effective contributors in any interdisciplinary collaborative effort in order to become true ambassadors for environmental change, capable of identifying environmental challenges, understanding their implications and drawing up innovative, environmentally friendly solutions. Trained in cutting-edge research methodology and data analysis techniques, these students will prove to be an indispensable resource to ensure the sustainable development of your organization!

### WHAT OUR STUDENTS CAN DO FOR YOU

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#### Environmental communication

- Awareness and prevention
- Moderating skills (nature guide, agent, etc.)
- Communication and popularization of scientific content
- Drafting technical reports

#### Environmental characterization

- Sampling (water, air and soil)
- Participating in characterization studies
- Environmental quality monitoring
- Emissions budgets (annual, etc.)

#### Research and analysis

- Data analysis and interpretation
- Research and analysis of environmental issues
- Project sustainability analysis
- Cost-benefit analysis with environmental costs
- Thematic maps
- Assisting in the verification of applicable regulations and environmental compliance
- Certificate of approval application

#### Project management

- Implementation of environmental management systems
- Design and implementation of environmental programs (waste management, etc.)
- Design and implementation of a sustainable development project
- Implementing sustainable management projects
- Developing environmentally responsible aspects of events



# KNOWLEDGE AND SKILLS

See, term by term, the knowledge and skills that our students acquire during their theoretical and practical studies.

Term	Description
S-1	<b>Data research and analysis; teamwork</b> methodology; key environmental issues; introduction to environmental law; foundations of natural sciences or foundations of social sciences; <b>ecosystems</b> : biodiversity, ecosystem services, components and dynamics of an ecosystem.
S-2	<b>Communication</b> : popular science, report writing, principles of a good oral presentation; <b>environmental chemistry</b> ; interactions and environmental issues pertaining to <b>wetlands</b> , bodies of water, watercourses; nature and properties of <b>soils</b> , soil-related environmental issues; responsible <b>environmental behavior</b> : environmental psychology, education campaigns, social marketing.
S-3	<b>Environmental law; characterization of water environments</b> : sampling, physicochemical analysis, benthos and plankton identification, a case study pertaining to water environment issues, indices and indicators (IBGN, IQBP, WQI...); <b>characterization of agricultural and forest soils</b> : planning, sampling and analysis, technical reporting; principles of <b>geomatics</b> : thematic maps, geographic information system; environmental <b>statistics</b> .
S-4	Methods of environmental <b>project management</b> ; environment and <b>natural resources</b> : impact of mining, forestry and agricultural operations, good management practices; <b>recreational and urban activities</b> : environmental impacts and alternative management methods to reduce or prevent such impacts; <b>sustainable development</b> : project analysis, Sustainable Development Act, sustainable development processes; environmental <b>economics</b> : economic analysis and tools, rights of ownership, externalities, value of the environment.
S-5	<b>Industrial sector</b> : environmental issues, discards, environmental management plan; environmental <b>ethics and governance</b> : types of governance, stakeholders and actors, problems related to ethics; <b>climate change and air pollution</b> : modeling, impacts, quantification of emissions and technical solutions; environmental <b>policy</b> : establishment and shaping of a public policy, strategies of stakeholders.
S-6	Environmental <b>standards, certifications and approvals</b> ; <b>health</b> and environment: effects of pollution on public health, sources of exposure, emerging risks, risk assessment; integration project in environment: service offer in response to a call for tenders, project meeting organization and follow-up, implementation, project management using indicators, relationship with the originator; principles of <b>sustainable development</b> : sector studies (housing, socio-economic profile, businesses and services, urban planning regulations, physical environment...), neighborhood development project, laws governing the territory of Quebec.

## ORGANIZATION OF STUDY (S) AND WORK (W) TERMS

1 <sup>st</sup> year			2 <sup>nd</sup> year			3 <sup>rd</sup> year			4 <sup>th</sup> year
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

FALL: September to December | WINTER: January to April | SUMMER: May to August