

| Programs | Description | Level | Url |
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| Biochemistry | Biochemistry is a science that aims to study and understand the biological functions and the chemical and physical properties of substances that form and interact with living organisms. The program aims to enable students to acquire the knowledge and skills necessary for the understanding and practice of biochemistry in general. It prepares them both for the job market and for pursuing graduate studies in biochemistry or related disciplines. After graduation, students can work as a professional or expert in biochemistry, in the pharmaceutical, agro-food, chemical, biomedical, environmental and other related fields, whether as an analyst in laboratory, research officer, trainer / teacher, or communicator. The program allows the acquisition of a solid basic training in chemistry and biology, and deepens knowledge and skills in fields more specific to biochemistry and its applications. | Bachelor | https://etudier.uqam.ca/programme/baccalaureat-biochimie |
| Biology in problem-based learning | This program revolves around the biology of the environment and biodiversity. During the first two years, the student acquires knowledge about living beings and their diversity; the different levels of organization, from the molecule to the ecosystem; and environmental interactions of an abiotic and biotic nature. The third year allows a specialization in one of the following three profiles: molecular biology and biotechnology; ecology; and toxicology and environmental health. | Bachelor | https://etudier.uqam.ca/programme/baccalaureat-biologie-appartement-problemes |
| Chemistry | This program offers an applied and solid training allowing graduates to practice chemistry in the spheres of activity targeted by the needs of the job market, and also to pursue higher studies. The program is focused around four strong and current disciplinary fields: instrumental analysis, synthesis and therapeutic chemistry, environmental analysis, and materials and energy. It aims to transmit, in an applied context, the theoretical and practical bases specific to the key fields of contemporary chemistry. The student will know how to integrate basic knowledge, and develop his analytical, organizational and communication skills through the resolution of problems and the realization of projects of increasing complexity during his course. Indeed, once the basic knowledge has been established, the training is organized in the form of carrying out projects related to the major sectors of chemical activity, namely health, the environment and materials and energy. | Bachelor | https://etudier.uqam.ca/programme/baccalaureat-chimie |
| Environment design | The design of the environment is a field of studies and interventions that covers the broad register of what makes up our material culture, ranging from the design of everyday objects to that of interior and exterior spaces and of the built places that form our environment. | Bachelor | https://etudier.uqam.ca/programme/baccalaureat-design-environnement |
| Ecology | The program aims to provide basic training in the field of ecology, by acquiring the notions of biology necessary for understanding the dynamics of ecosystems and by access to scientific work devoted to ecology and to the organic production. The courses allow, depending on the case, learning the main techniques used in terrestrial, aquatic or agro-food ecology and a study of the links between organic production and the exploited ecosystem. The two-week Field Method in Ecology course takes place at the La Huardière ecological station in Saint-Michel-des-Saints. | Certificate / minor | https://etudier.uqam.ca/programme/certificat-ecologie |
| Geography | Geography is interested in space-society relationships. In addition to constituting a set of essential fundamental knowledge, it includes a practical dimension which is very useful in the context of territorial studies. The geographer uses high-tech methods and tools related to cartography, quantitative methods, remote sensing and geographic information systems. He is therefore able to analyze various territorial issues (local and international development, planning, environment) and to intervene in a concrete way, for example, by participating in the decision-making process, by carrying out impact studies and by producing monitoring tools. management. | Bachelor / major | https://etudier.uqam.ca/programme?code=7756 |

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| Geology | <p>A bachelor's degree in Earth and Atmospheric Sciences is a preparation for many professions in geosciences, from geology to meteorology, and an openness to broad areas of research in fundamental disciplines related to geology. Geologists study the composition, structure, resources and evolution of the Earth, especially the Earth's crust. They assess mineral and water resources and participate in mining exploration work. They comment on the importance of raw materials and materials used in industry or construction. They determine the risks of natural disasters and assess the impact of human actions on the natural environment. Their expertise is essential for the planning and management of the territory. For example, they check the stability of the land, determine the flood zones and report the erosion of river banks and coastal areas.</p> | Bachelor / major | https://etudier.uqam.ca/programme?code=6920 |
| Applied geology | <p>This program is mainly intended for people already engaged in the work environment (technical staff, teachers) and who need knowledge in geology for their activities. It is also aimed at all those who seek additional scientific and technological training. It aims to enable students: to acquire essential theoretical knowledge on materials, shapes and geological processes; acquire the knowledge and technical or practical skills to carry out laboratory or field work; to integrate their theoretical and practical knowledge for a global approach of their geological environment; to solve practical problems in the course of their activities.</p> | Certificate / minor | https://etudier.uqam.ca/programme?code=4024 |
| Territorial planning and risk management | <p>The general objective pursued by the certificate program in territorial planning and risk management is to offer a short undergraduate training on the problematic of risks and on its integration into the normative framework for spatial planning in Quebec: to acquire a minimum knowledge base in understanding the major risks and their impacts on the territories; develop initial expertise on the vulnerability of territories and the means of intervention to reduce this vulnerability; develop general expertise on the Quebec normative framework for territorial planning in relation to the reference framework for risk management.</p> | Certificate / minor | https://etudier.uqam.ca/programme?code=4026 |
| Sustainable energy resources | <p>This certificate is intended for people interested in energy and environmental issues; in particular the questions of healthy buildings and energy management (energy efficiency, energy saving and protection of the environment and human health in a perspective of local autonomy and the use of technologies appropriate to the environment). We target topics specific to residential housing and small commercial buildings. The certificate therefore aims at the development of a general culture and professional improvement in the field of energy and more specifically of renewable energy resources and healthy building.</p> | Certificate / minor | https://etudier.uqam.ca/programme?code=4049 |
| Atmospheric Sciences | <p>This training provides a basis of theoretical and practical knowledge in meteorology and climatology. The certificate is a subset of the "Atmospheric Sciences: Weather and Climate" concentration of the Bachelor of Earth and Atmospheric Sciences. The certificate comprises 10 compulsory courses distributed as follows: 4 specialized courses in atmospheric sciences, including 3 theoretical courses and 1 application laboratory entirely devoted to experimentation; 3 courses in disciplines related to atmospheric sciences; 3 courses to develop the use of increasingly essential tools in atmospheric sciences. At the end of his training the student will be able to:</p> <ol style="list-style-type: none"> 1) Know the components of the water cycle in the climate system; 2) Understand the issues associated with atmospheric pollution; 3) Use the usual statistical and computer tools of atmospheric sciences; 4) Recognize the composition and structure of the atmosphere, as well as atmospheric circulations in meteorological systems; | Certificate / minor | https://etudier.uqam.ca/programme?code=4526 |

- 5) Understand the interactions between the atmosphere and the ocean in the climate system;
- 6) Know the basics of the thermodynamics of humid air as well as the propagation of radiation in the atmosphere;
- 7) Understand the microphysical processes taking place in clouds;
- 8) Identify and interpret real-time meteorological information from available databases.

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| Environmental sciences | <p>The program aims to provide environmental education more specifically related to aspects of the physical sciences. The program offers students the opportunity to: acquire a variety of knowledge allowing them to establish interrelationships between the various disciplines involved in solving an environmental problem; to acquire, depending on their previous preparation, either additional professional training or an introduction to this field of knowledge; make a contribution to the development of society through their involvement in the environment and their understanding of the problems specific to the impacts of human activity on the environment.</p> | Certificate / minor | https://etudier.uqam.ca/programme?code=4139 |
| Earth and atmospheric sciences, geology concentration | <p>A bachelor's degree in Earth and Atmospheric Sciences is a preparation for many professions in geosciences, from geology to meteorology, and an openness to broad areas of research in fundamental disciplines related to geology. Geologists study the composition, structure, resources and evolution of the Earth, especially the Earth's crust. They assess mineral and water resources and participate in mining exploration work. They comment on the importance of raw materials and materials used in industry or construction. They determine the risks of natural disasters and assess the impact of human actions on the natural environment. Their expertise is essential for the planning and management of the territory. For example, they check the stability of the land, determine the flood zones and report the erosion of river banks and coastal areas.</p> | Bachelor | https://etudier.uqam.ca/programme?code=7442 |
| Earth and atmospheric sciences, concentration atmospheric sciences: weather and climate | <p>UQAM is the only French-speaking university to offer undergraduate training in atmospheric sciences in America. The training combines practice with theory, with 3 experimentation laboratories, the realization of a project, and synthesis activities. The student has access to advanced atmospheric science laboratories, a weather station, and a weather and climate simulator. The program introduces you to oral and written communication through individual presentations, thematic reports, and a course specifically on risk communication. New information and communication technologies (NICT) are integrated into training, particularly with regard to the processing of meteorological or geoscience data.</p> | Bachelor | https://etudier.uqam.ca/programme?code=7459 |
| Natural sciences applied to the environment | <p>This program aims above all to offer: (1) a training in natural sciences that can be applied in the resolution of environmental problems and generate a move towards more environmentally friendly practices; and (2) specific training in environmental sciences, allowing students to take a global view of environmental issues and the interrelationships between the components of natural environments, as well as to develop a capacity for innovation in the face of these issues. The objectives are: Develop a systemic understanding of environmental issues and the interrelationships between the components of natural environments; Know the general natural dynamics and the impact of disturbances linked to human activities; Acquire disciplinary training in natural sciences that can be used in the analysis of environmental issues; Introduce the concepts of governance and environmental policies; Develop appropriate practical skills and abilities through individual and group learning activities.</p> | Bachelor | https://etudier.uqam.ca/programme?code=6506 |

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