

Science Options Health Science Pure & Applied Sciences

Science
Program (200.B0)



About the program:

The two-year pre-university Science Program prepares you for university admission to various Science Programs. At Champlain, we have found that the best way for students to succeed is by making them part of the courses they take and giving them the opportunity to study scientific problems the way professional scientists do. In Biology, this means that you spend less time listening to lectures and more time participating in group activities and studying relevant cases. In Chemistry, you have the opportunity to put into practice what you learn thanks to a major lab component in each course. In Physics, option courses that are relevant to trends in science and engineering are added to the curriculum.

Science Options – Health Science or Pure & Applied Science:

Champlain College offers two distinct streams of scientific study: Health Science and Pure & Applied Science. Each stream gives students a solid foundation in biology, chemistry, mathematics, and physics. The Health Science option includes additional instruction in biology and chemistry to better prepare graduates for university study in programs such as medicine and health science research. Those enrolled in Pure & Applied have more flexibility in their studies and are able to choose from amongst a selection of additional science credits to better suit their academic ambitions.

Off-Campus Activities

Studying and understanding the various ecological systems in our environment is an important aspect of our Biology labs. Environmental studies at Champlain College Saint-Lambert provide students with the benefits of experiencing light field work during their studies which focuses on the analysis of water from the St. Lawrence River. It allows our students to become aware of, and understand, problems associated with pollution and sustainability. In addition, students spend time outside of the lab during structured activities to the Botanical Gardens and the Biodôme, where they will be responsible for data collection in an effort to become familiar with and appreciate the similarities and differences observed in the diverse living world.

Facilities

Students in the Biology Department have hands-on experience while they experience the scientific approach to observing life and examining some of its key properties. They are taught how to use and care for our new compound and stereomicroscopes while observing a diversity of cells, and examine DNA using gel electrophoresis units and thermocyclers for gene amplification techniques. Some lab activities provide the learners with the opportunity to handle live specimens such as fruit flies for genetic studies, pond microbes in ecological assessments, mammalian dissections to explore and compare other forms of life to the human body, and delicate manipulations using aseptic technique of plant tissue while exploring tissue culture methods.

Application Deadline: March 1st for the Fall Semester
November 1st for the Winter Semester

Minimum Admission
Requirements:

Quebec Secondary School Diploma or a level of education that is deemed equivalent by the College. Even if applicants meet the requirement of the Règlement sur le régime des études collégiale, they may be refused admission due to lack of space.

Prerequisites:

Mathematics TS 5 or SN 5, Secondary 5 Chemistry, Secondary 5 Physics

Contact Information:

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Semester Breakdown

Health Science

Semester 1

1	Calculus I
2	General Chemistry I
3	Mechanics
4	English
5	Humanities
6	French
7	Physical Education

Semester 2

1	Calculus II
2	General Chemistry II
3	Waves, Optics & Modern Physics
4	English
5	Humanities
6	Complementary
7	Physical Education

Semester 3

1	General Biology I
2	Organic Chemistry I
3	Electricity & Magnetism
4	English
5	Humanities
6	Complementary

Semester 4

1	General Biology II
2	Linear Algebra
3	Option Course
4	English
5	French
6	Physical Education

The Health Science option can take you:

Dietetics, Pharmacy, Optometry, Biology, Forensics, Nursing, Nutrition, Biochemistry, Education, Dentistry, Microbiology & Immunology, Biotechnology, Chemistry, Occupational Therapy, Veterinary Medicine, Psychology (B.Sc.), Physiotherapy, Experimental Medicine

Pure & Applied Science

Semester 1

1	Calculus I
2	General Chemistry I
3	Mechanics
4	English
5	Humanities
6	French
7	Complementary

Semester 2

1	Calculus II
2	General Chemistry II
3	Waves, Optics & Modern Physics
4	English
5	Humanities
6	Physical Education

Semester 3

1	General Biology I
2	Linear Algebra
3	Electricity & Magnetism
4	English
5	Humanities
6	Complementary
7	Physical Education

Semester 4

1	Option Course
2	Option Course
3	Option Course
4	English
5	French
6	Physical Education

The Pure & Applied option can take you:

Agronomy, Chemical Engineering, Architecture, Mathematics (B.Sc.), Agriculture, Chemistry, Forestry, Physics (B.Sc.), Engineering, Computer Science, Geology