

Science Options

Health Science

Pure & Applied Science

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 their courses and studying scientific problems the way professional scientists do. In Biology, you will spend less time listening to lectures and more time participating in group activities and studying relevant cases. In Chemistry, you will practice what you learn thanks to a significant lab component in each course. In Physics, option courses pertinent to science and engineering trends complement the curriculum.

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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Facilities

The Chemistry Department has four fully equipped labs furnished with laptop computers and the latest data acquisition tools. A hands-on approach in the lab allows students to see results in real-time. Our equipment includes an Atomic Absorption Spectrophotometer, Ultra Violet/ Visible Spectrophotometer, a Gas Chromatograph, two Infrared Spectrophotometers, and three Rotary Evaporators used in organic chemistry to remove solvents from samples through evaporation.

The Physics Department has four fully equipped labs, three used by students for standard experiments, and one for special projects. The labs are equipped with the latest computerized data collection and analysis tools to enhance your experimental skills. Each lab workstation has a computer and sophisticated sensors and data-acquisition devices that allow you to see the outcome of your work immediately.

Students in the Biology Department have hands-on experience with new equipment such as compound and stereo-microscopes, gel electrophoresis units, and thermocyclers for gene amplification techniques. Labs provide the opportunity to handle live specimens such as fruit flies in 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 an aseptic technique of plant tissue while exploring tissue culture methods.

Science Options – Health Science or Pure & Applied Science:

Champlain 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. Health Science includes additional instruction in biology and chemistry to better prepare graduates for university study in medicine and health science research programs. Students in Pure & Applied have more flexibility in their studies and can choose from additional science credits to better suit their academic ambitions.

Off-Campus Activities

Studying and understanding the various ecological systems in our environment is an essential aspect of our Biology labs. Environmental studies at Champlain College Saint-Lambert provide students with the benefits of experiencing light fieldwork during their studies, focusing on water analysis from the St. Lawrence River. Students will become aware of and understand problems dealing with pollution and sustainability. Students have other opportunities to observe life outside of the lab during structured activities and data collection at the Botanical Gardens and the Biodôme, opening their eyes to the similarities and differences observed in the diverse living world.

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

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

Health Science - The possibilities:

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 - The possibilities:

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