

BACHELOR OF SCIENCE (HONOURS), MAJOR IN HEALTH SCIENCE

At a Glance

Faculty

www.kpu.ca/science (<http://www.kpu.ca/science/>)

Area of Study:

www.kpu.ca/healthscience (<https://www.kpu.ca/healthscience/>)

Academic Level:

Undergraduate

Credential Granted:

Baccalaureate Degree (Honours)

Start Date:

Fall (September)

Spring (January)

Summer (May)

Intake Type:

- Open

Minimum Credits Required:

126

Curriculum Effective Date:

01-Sep-2020

Description

The B.Sc. in Health Science program is designed to prepare students for employment in health policy, research, management, sales, and education. The program also prepares students for entry into health professional programs and post graduate degrees in the sciences.

The objectives of the degree program are to provide graduates with:

1. Foundational knowledge in the basic sciences of chemistry, physics, mathematics, and biology, along with strong writing and critical thinking skills.
2. Skills to apply scientific knowledge to clinical, public, and population health to understand current health issues and the common approaches used to advance health and wellness.
3. Educational prerequisites necessary for entry into health professional programs (e.g., medicine, dentistry, pharmacy, etc.) or post-graduate studies in the sciences.
4. Competitive advantage to graduates choosing to pursue alternate career paths or post-graduate studies in complementary medicine (e.g., naturopathy, traditional Asian medicine).

The B.Sc. in Health Science degree is designed around required basic science and health science courses, that are complemented by health science and open electives to provide graduates with a solid science

foundation, along with critical health research, communication, and management skills for future success.

Please note that the first- and second-year courses required in the program are normally available on both Richmond and Surrey campuses. However, the courses with the subject code HSCI will be offered on the Surrey campus only.

Who Studies Health Science?

Successful health science students tend to be self-motivated, with a strong work ethic, and well-developed oral and written communication skills. They also demonstrate empathy and concern for those around them. Students should have a strong interest in life sciences and human biology and a desire to pursue a career within the broad range of options that exist in the field of health.

Requirements

Admission Requirements

The Faculty's Admission Requirements, which consist of KPU's undergraduate English Proficiency Requirement (<https://calendar.kpu.ca/admissions/english-proficiency-requirements/>), apply to this program.

Declaration Requirements

Students intending to graduate with this Faculty of Science and Horticulture degree must declare the credential by the time they complete 60 credits of undergraduate coursework. At the time of declaration, the student must satisfy all of the following requirements:

- In good academic standing with the University
- Completion of a minimum of 21 credits of undergraduate coursework, including the following:
 - 3 credits of ENGL at the 1100 level or higher
 - BIOL 1110 with a minimum grade of "C"
 - BIOL 1210 with a minimum grade of "C"
 - CHEM 1110 with a minimum grade of "B" or CHEM 1210 with a minimum grade of "C"
 - MATH 1120 with a minimum grade of "C" or MATH 1130 with a minimum grade of "C"
 - HSCI 1115 with a minimum grade of "C"

Curricular Requirements

All students must meet the following minimum requirements:

- In addition to ENGL 1100, complete 3 credits from courses designated as Writing Intensive.
- 120 credits from courses at the 1100 level or higher.
- 45 credits from courses at the 3000 level or higher, including 9 credits at the 4000 level.
- 18 credits of breadth electives including at least 3 credits from a course at the 3000 level or higher. These must include:
 - at least 12 credits from courses that are offered outside the Faculty of Science & Horticulture; and
 - up to 6 credits from courses offered within the Faculty of Science & Horticulture other than BIOL, CHEM, MATH, and PHYS.
- Cumulative GPA of 2.0 or higher.
- At least 50% of all courses for the BSc, and at least 66% of upper-level courses for the BSc, must be completed at KPU.

Enrolment in the Health Science Honours program requires the permission of the Biology Department. In order to be considered for the Honours program, students must typically have a record of exceptional academic performance, including a minimum Grade Point Average of 3.0

The Bachelor of Science (Honours), Major in Health Science, requires the completion of a minimum of 126 credits, including the following specific course requirements.

Course	Title	Credits
Year 1		
BIOL 1110	Introductory Biology I	4
BIOL 1210	Introductory Biology II	4
CHEM 1110	The Structure of Matter	4
CHEM 1210	Chemical Energetics and Dynamics	4
ENGL 1100	Introduction to University Writing	3
HSCI 1115	Introduction to Health Science	3
HSCI 2220	Medical Terminology	3
MATH 1120 or MATH 1130	Differential Calculus or Calculus for Life Sciences I	3
MATH 1230	Calculus for Life Sciences II	3
Select one of the following:		3
INDG 1100	Introduction to Indigenous Studies	
MATH 1135	Problems and Concepts	
PHIL 1145	Critical Thinking	
PHIL 1155	Introduction to Scientific Reasoning	
SOCI 1125	Introduction to Society: Processes and Structures	
	Credits	34
Year 2		
BIOL 2320	Genetics	4
BIOL 2321	Cell Biology	4
BIOL 2421	Cellular Biochemistry	3
CHEM 2320	Organic Chemistry I	4
CHEM 2420	Organic Chemistry II	4
PHYS 1101	Physics for Life Sciences I	4
SOCI 2280	Sociology of Health, Disability, and Society	3
Elective	At the 1100 level or higher	3
Select one of the following:		3-4
ANTH 1100	Social & Cultural Anthropology	
ENVI 2305	Environmental Toxicology	
PSYC 1100	Introduction to Psychology: Basic Processes	
PHYS 1102	Physics for Life Sciences II	
PHIL 1145	Critical Thinking	
	Credits	32-33
Year 3		
BIOL 2330	Microbiology	4
BIOL 3130	Foundations of Human Anatomy & Physiology	4
BIOL 3180	Life Science Research Methods	3
BIOL 3321	Advanced Cell and Molecular Biology	4
BIOL 4230	Human Gastrointestinal, Excretory, and Reproductive Systems	3
MATH 2335	Statistics for Life Sciences	3
PHIL 3010	Health Care Ethics	3
Select two of the following:		6-7
BIOL 3320	Molecular Genetics	
HSCI 3110	Applications of Health Science	
HSCI 3215	Complementary Medicine	
HSCI 3225	Nutrition	
HSCI 4130	Pharmacology	
	Credits	30-31
Year 4		
BIOL 3421	Molecular Biochemistry	3

BIOL 4130	The Human Cardiovascular, Respiratory and Nervous Systems	4
HSCI 4380	Critical Evaluation	3
HSCI 4990	Honours Thesis Project I	4
HSCI 4995	Honours Thesis Project 2	4
Select two of the following:		6-8
BIOL 3330	Microbiology II	
BIOL 4320	Human Genetics	
BIOL 4245	Developmental Biology	
BIOL 4255	Bioinformatics	
HSCI 4170	Human Pathology	
Select two of the following:		6
HSCI 4110	Health Program Planning and Evaluation	
HSCI 4140	Health and Aging	
HSCI 4245	Populations and Policy	
HSCI 4250	Health Business	
	Credits	30-32
	Total Credits	126-130

Credential Awarded

Upon successful completion of the Honours program, students are eligible to receive a **Bachelor of Science (Honours), Major in Health Science**.

Co-op Requirements Co-operative Education Option

The Bachelor of Science (Honours), Major in Health Science degree is offered with a Co-operative Education Option. Co-operative Education gives a student the opportunity to apply the skills gained during academic study in paid, practical work experience semesters. Degree students can complete a minimum of three work terms while completing their degree. Work terms generally occur full-time in separate 4 month work semesters. Work semesters alternate with academic study.

Students wishing to enter and participate in the Co-operative Education Option must meet the following requirements:

Declaration and Entrance Requirements

- Declaration into the Bachelor of Science, Major in Health Science program
- Declaration of the co-operative education option prior to completion of 90 credits for the Bachelor of Science, Major in Health Science program
- Minimum GPA of 2.7

Program Continuance Requirements

- Completion of COOP 1101 prior to completing 90 credits
- Minimum GPA of 2.7
- Instructor permission

Co-op Course Requirements

The Co-operative Education designation requires successful completion of the following courses:

Code	Title	Credits
Required		
COOP 1101	Introduction to Professional and Career Readiness	1
COOP 1150	Co-op Work Semester 1	9
COOP 2150	Co-op Work Semester 2	9

COOP 3150	Co-op Work Semester 3	9
Optional		
COOP 4150	Co-op Work Semester 4	
Total Credits		28

Note: COOP courses must be completed in ascending numerical order. Contact the Co-op office for information about the possibility of part-time work terms. COOP courses may be used only to satisfy the Co-op designation and cannot be used to satisfy other curricular requirements of the program.

Additional Requirements

In addition to the requirements stated above, all Co-op students must satisfy the General Co-operative Education Requirements (<https://calendar.kpu.ca/academic-regulations/co-operative-education/>).

Credential Awarded

Upon successful completion of this program with co-operative education, students are eligible to receive a **Bachelor of Science (Honours), Major in Health Science, Co-operative Education Option**.