

# HEALTH SCIENCES (HSCI)

This is a list of the Health Sciences (HSCI) courses available at KPU.

Enrolment in some sections of these courses is restricted to students in particular programs. See the Course Planner - [kpu.ca/registration/timetables](http://kpu.ca/registration/timetables) - for current information about individual courses.

For information about transfer of credit amongst institutions in B.C. and to see how individual courses transfer, go to the BC Transfer Guide [bctransferguide.ca](http://bctransferguide.ca)

## **HSCI 1115** **3 Credits** **Introduction to Health Science**

Students will be introduced to the multifaceted field of health science and the foundations of promoting health and wellness. Students will explore concepts of health, science and health science from a variety of perspectives including biological, clinical, cultural, environmental, political and socioeconomic. Students will be introduced to the variety of health care careers that contribute to the effective delivery of health care and the promotion of health and wellness in the community. Students will learn the benefits of well-organized cross-functional teams in generation of innovation, productivity and effective service.

*Prerequisites:* Level D1 as defined in the Math Alternatives Table, and one of the following: (a) English 12 (B), (b) English 12 First Peoples (B), (c) ENGQ 1091 (B), (d) ENGQ 1092 (B), (e) ENGQ 1099 (B) or (f) 3 credits from courses in ENGL at the 1100 level or higher

## **HSCI 1220** **3 Credits** **Health Science Writing**

Students will learn how to analyze audience and context in order to communicate effectively in the field of health science. They will learn basic research strategies, document conventions, teamwork strategies, health science proposal and report creation, conflict resolution approaches, and health science language usage. Students will develop their written and oral communication skills, as well as critical thinking and research skills. They will learn the principles, theories, techniques, and common formats required for writing and communicating scientific research, proposals, reports, and reviews.

*Prerequisites:* BIOL 1110, ENGL 1100, and HSCI 1115.

## **HSCI 2220** **3 Credits** **Medical Terminology**

Students will learn the basic Greek and Latin constructs upon which science and medical language is based. Students will learn to identify, articulate, and spell classic nouns, prefixes, and suffixes. They will learn how to translate non-science language into biomedical terminology and how to deconstruct biomedical terminology into clear and accurate non-science language.

*Prerequisites:* ENGL 1100 and one of: BIOL 1110 or BIOL 1160.

## **HSCI 3215** **3 Credits** **Complementary Medicine**

Students will learn to undertake an evidence-based evaluation of complementary, alternative and integrated approaches to medicine. They will examine various modalities that include the full scope of naturopathic modalities, Indigenous philosophies, and body and mind therapies.

*Prerequisites:* ENGL 1100 (B) or HSCI 1220 (B), and one of: (a) BIOL 1110 and BIOL 1210, or (b) BIOL 1160 and BIOL 1260.

## **HSCI 3225** **3 Credits** **Nutrition**

Students will learn the fundamentals of the macronutrients (i.e., carbohydrates, lipids, and protein), fluids, fiber, alcohol, vitamins, and minerals including their integration, regulation, and roles in promoting health. Students will review nutritional requirements and dietary patterns of healthy individuals throughout the life span, and evidence-based examination of the role of nutrition in the prevention of chronic disease will be discussed. Students will also review topical issues in the field of nutrition will be explored.

*Prerequisites:* BIOL 2421

## **HSCI 4140** **3 Credits** **Health and Aging**

Students will review age-related physiological changes and key health issues that occur throughout the adult human life span. Students will also explore interdisciplinary perspectives on human development and the complex interaction of physical, psychosocial, and environmental issues that influence health and well-being. Students will examine factors in healthy aging in relation to the design of the current health care system, major challenges, and capacity- building options. Using personal reflections and community service learning, students will learn through civic engagement.

*Prerequisites:* 90 credits from courses including (a) BIOL 1110 or BIOL 1160, and (b) HSCI 1115 or SOCI 2280.

## **HSCI 4245** **3 Credits** **Populations and Policy**

Students will examine the process, outcome and implementation of health policy and will focus on key issues in Canadian federal and British Columbia healthcare systems. They will review key topics that include the organization and financing of health care delivery, the determinants of health, primary care and providers' payment, quality improvement and performance measurement, private health insurance, prevention, and health disparities. Students will study the various participants in the health policy process, the different arenas where health policy is created, and the various policy instruments that are used. Students will compare Canada's health policies with those of other nations with specific attention to the United States and Europe.

*Prerequisites:* 45 credits from courses at the 1100 level or higher, including BIOL 3180, HSCI 1115, HSCI 1220, and SOCI 2280.

**HSCI 4250** **3 Credits**  
**Health Business**

Students will learn fundamental business principles, survey potential career paths, and acquire professional, intrapreneurial and entrepreneurial knowledge and skills that are in demand in health science. They will learn private and public sector health business models along with relevant regulatory, legal, financial, and market force considerations. Through practical opportunities, students will propose an original health venture idea and realistically assess the potential of their venture idea, and the feasibility of establishing a business.

*Prerequisites: 60 credits from courses at the 1100 level or higher*

**HSCI 4380** **3 Credits**  
**Critical Evaluation**

Students will learn to critically evaluate scientific literature and apply it to evidence-based decision making and best practice principles. They will develop advanced literature search, retrieval, and synthesis skills. Students will examine various types and levels of evidence such as systematic reviews, meta-analyses, and realist syntheses and translate the research findings to evidence-based health care, and informed decision making.

*Prerequisites: 90 credits from courses at the 1100 level or higher, including BIOL 3180, HSCI 1115, HSCI 1220, and SOCI 2280.*

**HSCI 4950** **3 Credits**  
**Senior Seminar**

Students will use primary research literature to study a variety of current and relevant topics in biological and health science research. Students will explore how modern research techniques, research design and data analysis are advancing human health and wellbeing. Seminars will include engaging research article presentations by faculty and students, followed by focused discussion and critique of the presented research. Students with credit for BIOL 4900 may not take HSCI 4950 for further credit.

*Prerequisites: 60 credits from courses at the 1100 level or higher, including all of the following: HSCI 1220, BIOL 2421 and BIOL 3180.*

**HSCI 4990** **4 Credits**  
**Honours Thesis Project I**

Students registered in the honours option will design and propose a research project that will be conducted in HSCI 4995 under the supervision of a KPU faculty member with expertise relating to the research topic. Students will learn to organize an advisory committee, develop and present a full research proposal for approval, conduct pilot work as needed, obtain ethics approval where relevant, and prepare a knowledge dissemination plan. Students will also review and provide feedback on research proposals of their colleagues.

Note: This course is available to Honours Program students only.

*Prerequisites: 60 credits from courses at the 1100 level or higher including all of the following: HSCI 1115, HSCI 1220, BIOL 2421, BIOL 3160 and BIOL 3180.*

**HSCI 4995** **4 Credits**  
**Honours Thesis Project 2**

Honours candidates will perform a research project designed in HSCI 4990. Under the direct supervision of a KPU faculty member, students will apply scientific principles and methodology in a creative hands-on research experience. Upon completion of the research project, students will construct and present a research formal report and presentation. Opportunity will be given for students to disseminate findings of their research project.

Note: This course is available to Honours Program students only.

*Prerequisites: HSCI 4990*