Bachelor of
Health Sciences

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Carleton’s Bachelor of Health Sciences (BHSc) is a wide-ranging and career-focused program that will provide you with the skills required to succeed in the rapidly changing worlds of medicine, biomedical research and healthcare research. You will gain a strong foundation in the scientific knowledge and methods involved in the study of human health, along with the capacity to engage in broader multidisciplinary, multi-sector, and multicultural approaches to finding solutions to some of the most crucial health issues of our time.

**Program of study**

The BHSc program offers a broad-based foundation in health science that can prepare you for postgraduate education in biomedical research and professional fields like medicine, dentistry or veterinary medicine, as well as for careers in health-related fields like public health, global and environmental health law and policy, and health services and community healthcare.

The BHSc program offers five concentrations, which can be combined in unique and informative ways:

- **BIOMEDICAL SCIENCES**
  This concentration provides a strong foundation in the biomedical sciences and allows you to explore the genetic, biochemical, immunological, physiological and developmental aspects of human health. In addition, a broader view of health sciences is gained by addressing current issues from cultural, psychological, technological and environmental perspectives. Training in the dynamic field of biomedical sciences will provide you with the skills needed to be part of the exciting and rapidly changing world of biomedical research and medicine.

- **GLOBAL HEALTH**
  This concentration provides you with the knowledge required to address current and developing international health issues. It focuses on real-world issues of increasing relevance in our interconnected global community—such as infectious diseases and pandemics—in the context of the social and political factors that influence healthcare practices and policies. You will explore such topics as the interaction between pathogens and our immune system, the way that therapeutics and vaccines work, and why it is harder to
develop treatments or vaccines for some diseases than for others.

ENVIRONMENT AND HEALTH
This concentration explores the influence of our environment on our health, from toxins we are exposed to in our daily lives to the effect of climate change on global patterns of infectious disease. You will learn about the chemistry of environmental toxins, their effect on our cells and DNA, and our immune responses to them, including how multiple factors can make individuals either more vulnerable or more resilient to illness. You will also study issues related to the prevention and treatment of environmentally linked illnesses such as cancer, asthma, and neurodegenerative disorders like Parkinson’s disease and dementia.

HEALTH THROUGHOUT THE LIFESPAN
This concentration focuses on health and illness through the stages of human life. There are few health sciences programs in Canada that include lifespan studies, and Carleton’s program is unique in featuring courses that explore the entire lifespan, from neonatal development to old age. You will learn about the biological aging process, including how events occurring early in life can have effects that appear much later, in the form of medical conditions like diabetes, cardiovascular disease and depression. In addition, you will explore the biomedical basis of health and disease, and have the opportunity to learn how factors such as gender and social conditions can influence health.

DISABILITY AND CHRONIC ILLNESS
This concentration is unique to Carleton. It introduces you to the biomedical, social and psychological basis of chronic illnesses and explores treatment strategies to enable productive and healthy lives. Chronic illnesses and disabilities affect the quality of life of a large number of people and include heart disease, cancer, chronic pain conditions, mental health problems and physical disabilities. You will learn about biomedical, cognitive and technological advances, as well as the ethical dilemmas affecting intervention and treatment.

All concentrations in the BHSc program provide a hands-on approach that includes laboratories, workshops and seminars, beginning in first year. Students can take advantage of programs offered at Carleton that include summer research internships, the co-curricular volunteer program and international alternative break opportunities. The fourth year of the program provides a capstone experience with various options and hands-on experiences to choose from (pending satisfaction of academic requirements) that can advance your personal and professional goals.
Double concentration option

For those who would like to fuse two areas of study, it is possible to take a double concentration. For example, Biomedical Sciences can be combined with Global Health, if you wish to address new and emerging diseases. Likewise, you might wish to combine the concentrations in Health Throughout the Lifespan and in Disability and Chronic Illness to focus on issues relating to healthy aging. Taking a double concentration can add value to your degree for when you enter the job market or when you apply to professional or postgraduate programs.

The Carleton advantage

The BHSc program reflects Carleton’s strengths in such fields as global and international studies, journalism and evidence-based practices and policy, and architecture and the built environment. This emphasis on interdisciplinarity will provide you with the breadth of knowledge and experience that medical schools and employers look for.

The capital advantage

Carleton’s location in the nation’s capital has enabled the university to forge partnerships in the area of health with both the public and private sectors. There are numerous organizations, agencies, research institutes and hospitals in the region that together provide a knowledge base unique to Ottawa.

Careers

There is great demand for highly-skilled workers in the health sector in Canada. The concentrations in the BHSc program are designed to prepare you for a diverse array of health careers but also provide excellent preparation for medical school and other professional training.

Professional programs

Many professional programs, such as teaching, medicine and journalism, are interested in attracting well-rounded applicants from a variety of backgrounds. The Bachelor of Health Sciences provides a strong foundation for such programs.

Admission requirements

For admission to the Bachelor of Health Sciences program, you must have the Ontario Secondary School Diploma (OSSD) or equivalent including a minimum of six 4U or M courses, which must include Advanced Functions and two of Biology, Chemistry, Earth and Space Science or Physics. Calculus and Vectors is strongly recommended. A 4U course in English is also recommended.

It is Carleton University policy to consider your best performance in any eligible course in the admissions assessment. Since the number of qualified applicants may be greater than the number of available spaces, cut-off averages and required marks may vary. Please refer to our website at admissions.carleton.ca/requirements for the current admission requirements.