

THE DEPARTMENT OF CELLULAR & PHYSIOLOGICAL SCIENCES

The Department of Cellular & Physiological Sciences at UBC offers an Honours BSc degree specialization in Cellular, Anatomical & Physiological Sciences (CAPS). Core courses focus on physiology and anatomy of body systems: nervous, endocrine, cardio-vascular, respiratory, renal and gastrointestinal systems.

What will you be studying? Life processes. The tip of the iceberg includes how living systems work from the molecular level to organ systems to whole organism, how organisms respond to physical activity and the environment, how disease can affect these systems and how genomes can translate into function.



Honours students spend a year carrying out an investigation under the supervision of a faculty member that forms the basis of a graduating essay. It is important for the students to develop the ability to formulate focused questions and to devise novel ways to find answers. In addition, students may choose to engage in a 12-16 month Cooperative Education program, working in the field as part of their undergraduate training.

First Year

Communication Requirement	6
BIOL 112, 121, 140	8
CHEM 121, 123 (111, 113)	8
MATH 100 or 102 or 104	3
MATH 101 or 103 or 105	3
PHYS	6
Total Credits	34

Second Year

BIOL 200, 201 (or BIOL 200, BIOC 202)	6
BIOL 300 (or STAT 200)	3
CHEM 205	3
CHEM 211	4
CHEM 233, 235	4
MICB 202	3
Electives	12
Total Credits	35

Third Year

BIOC 301, 302	6
CAPS 301	6
CAPS 303	3
CAPS 390	3
Electives	15
Total Credits	33

Fourth Year

CAPS 421, 422, 423, 424, 426	15
CAPS 430	6
CAPS 449	6
Electives	3
Total Credits	30
Credits for Degree	132

HONOURS PROGRAM

CAPS

CELLULAR, ANATOMICAL & PHYSIOLOGICAL SCIENCES



For Application Form & FAQ
<http://cps.med.ubc.ca>

Academic Advisor
Dr. Sally Osborne
sally.osborne@ubc.ca

CAREERS

A B.Sc. degree in CAPS allows you to work in many different settings under the supervision of a senior scientist. For those aspiring to the level of an independent investigator and teacher, students can subsequently obtain a M.Sc., Ph.D. or M.D. degree. If you prefer full time research, you can find rewarding positions in government laboratories, industry, hospitals, and clinical settings. The Cooperative Education program allows you to explore research in various settings.



SOLID PREPARATION FOR PROFESSIONAL CLINICAL FIELDS

Many undergraduates in Cellular, Anatomical and Physiological Sciences choose to continue their education in medical, dental and veterinary schools where cellular, anatomical and physiological sciences are the prominent and necessary knowledge base.

Cellular, Anatomical & Physiological Sciences are important because they are the basis upon which we expand our knowledge of what "life" is, how to treat disease, and how to cope with stresses imposed upon our bodies by new environments.



The history of the field can be traced to Aristotle in the 4th century B.C., but the science in its modern form began to develop with the Renaissance. The American Physiological Society was formed in 1887; the Canadian Physiological Society in 1935. Over the last century, the field has grown at a constantly accelerating rate, diversifying into many specialized areas.

Most recently, advances in molecular biology have provided new techniques for investigating physiological processes at cellular and sub-cellular level. New findings challenge older concepts as scientists probe the molecular levels where structure and function become synonymous. Knowledge of the normal human structure and function helps scientists understand what goes wrong in disease, leading to the development of new strategies for prevention and treatment. The highest honor awarded in the field is the Nobel Prize in Physiology or Medicine, awarded since 1901 by the Royal Swedish Academy of Sciences.

STUDENT TESTIMONIALS

“Inspiring instructors, collaborative students, fascinating courses and engaging laboratory experiments (with yourself as the subject, cool!) are what I’ve experienced in the CAPS program. If you are also enchanted by the wonders of the human body, you belong to CAPS!” – Alis Xu

“As a student fascinated by the human body, I have found the CAPS program to be very rewarding. The courses we take not only encourage an in depth understanding of physiology, but provide us with the incredible opportunity to explore these concepts, first hand, in the laboratory.” – Kina Ellison