

CAPS 303 Course Syllabus

CAPS 303. Techniques and principles of human physiology (3 Credits)

Academic Calendar Description:

Techniques and principles of human physiology. This course must be taken in conjunction with CAPS 301. Restricted to Cellular, Anatomical and Physiological Sciences and Pharmacology students. [1-4-0]

Corequisites: One of CAPS 305, CAPS 301.

Instructional Schedule: 1 x 3 hour lab each week

Course Overview

The CAPS 303 Human Physiology Laboratory course complements and reinforces fundamental concepts of physiology covered in CAPS 301 (or CAPS 205 and CAPS 206). By the end of this interactive course, you will have gained hands-on experience with instrumentation and measurement techniques commonly utilized in the assessment of human physiological variables. These skills will equip students to excel in a wide variety of health care and research related settings. Topics include the following systems: sensory, nervous, muscular, cardiovascular, respiratory, digestive, and endocrine.

Course Structure

There will be one 3-hour lab per week. Each lab consists of an online module accessed via the course CANVAS site, and a combination both asynchronous and in-person activities.

Course Co-Director

Dr. Christina Hull (interim) christina.hull@ubc.ca

Student Expectations

Quizzes Prior to all lab sessions student must complete a 10-minute quiz on Canvas based on the pre-reading material. **Once you begin the quiz you have only 10 minutes to complete it. The quiz is available on Canvas 24 hours prior to the lab.** Make sure you have read the pre-reading and complete the quiz before the lab session.

Session Lab LT Reports Students complete the Pre-Lab & Lab modules for each laboratory session working in groups. Group leaders will submit their group's lesson lab report. It is important to ensure that there is consensus among the group when submitting the group report. Groups are pre-assigned for each lab session on Canvas.

Assignments are submitted through Canvas and due the following Thursday after the lab at 2 pm in pdf format. Groups are pre-assigned for each lab.

Term Project Students define their own group research question. They submit a term project question and a term project proposal and will have an opportunity to review and get feedback on their project proposals. The project report is due end of term. The term project proposal and term project report each count toward 50% of the term project mark.

Participation The mark for each student is based on the student's preparedness; effective, productive and active participation in class; in addition to reasoned and thoughtful content of LT lab reports.

Missed Classes/ Deadlines Makeup labs are not offered. Students can request concession to miss only **one single lab** and its associated quiz and assignment without penalty **per term. Make sure you email your TAs and the course directors that you will not be attending prior to 2 pm start of that lab.**

Beyond this concession, all missed work will receive a zero mark. It is assumed that students will use their concession for [valid rounds as specified by Faculty of Science](#). A medical note is not required. Missing the deadlines for the quizzes, lab assignments, PCTH lab report, and the term project result in a 25% reduction in mark per day from due time. For example, an assignment submitted between Thursday 2 pm - Friday 2 pm will result in 25% loss in total mark for that assignment; submitted assignments between Friday 2 pm - Saturday 2 pm result in a 50% loss and so on.

Safety in the Classroom Students are required to wear close-toed shoes in the lab. Food and beverages are not allowed in the lab. All personal items, backpacks, coats, mobile phones and tablets/laptops must be put away in the designated space in the lab and should not be utilized while in attendance. Lab coats are not required except for the Neuroanatomy lab.

Your Personal Health If you're sick, it's important that you stay home – no matter what you think you may be sick with (cold, flu, other). **Make sure you email your TAs and the course directors that you will not be attending prior to 2 pm start of that lab.**

Instructor Health If an instructor is sick due to illness they will not come to class and the lab will be cancelled unless another faculty is available to instruct. If possible, the lab will be rescheduled to a later date.

Assessment, Evaluation & Grading

Quizzes (11 X 1%)	11%
Assignments (11 X 5%)	55%
PCTH Lab Report	10%
Term Project	14%
Participation	10%
Total Mark	100%

Learning Outcomes

In this course you will learn to:

- Describe how human physiologic data is collected.
- Collect, measure and analyse human physiologic data.
- Fit newly gained information into a growing framework of understanding.
- Develop informed and evidence-based arguments.
- Design and execute a project to test a hypothesis based on human physiologic recordings.
- Collaborate effectively through participation in group projects.
- Manage projects and course work together with other commitments.

Schedule of Topics :

Lab 1 Orientation (2 pm @ LSC)

Co-op Information Session (4 pm Start)

Introduction to the Term Project & REDI workshop

Lab 2 An introduction to ADI LT & The Stroop Test

Lab 3 Sensory Physiology

Lab 4 Muscle & EMG

Term Project question due

“Make-Up Monday” no Thursday classes scheduled across campus

Lab 5 Neuroanatomy

Lab 6 Peripheral Nerve Function

Lab 7 Reflexes & Reaction Times

Term Project proposal due

Lab 8 ECG

Term Project review

Term II

Course coordinator:

Lab 9 Lung Volumes

Lab 10 The Flow Volume Loop

Lab 11 Cardiopulmonary Responses to Exercise

Midterm Break

Term Project data collection

Lab 12

Pharmacology I

Lab 13

Pharmacology II

Term Project due

University Policies

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all their actions. Details of the policies and how to access support are available at [the Policies and Resources section of the UBC Senate website.](#)

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the [Discipline for Academic Misconduct](#) section of the UBC Academic Calendar.

- No assignment may be submitted to any other instructor of any course for a grade.
- The minimum penalty for plagiarism in any assignment is a zero for the paper; the maximum penalty is a zero for the course.

UBC Grading Standards

Undergraduate Grading Scale

Percentage (%)	Letter Grade
90-100	A+
85-89	A
80-84	A-
76-79	B+
72-75	B
68-71	B-

64-67	C+
60-63	C
55-59	C-
50-54	D
0-49	F

Land Acknowledgements

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of thexwməθkwəy̓ əm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on in their culture, history, and traditions from one generation to the next on this site.

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