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**COURSE INFORMATION**


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Course Title	Course Code Number	Credit Value
EXERCISE PHYSIOLOGY II	KIN 375	3

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**CONTACTS**


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Course Instructor	Contact Details	Office Location	Office Hours
Carli Peters, Ph.Dc	carli.peters@alumni.ubc.ca	Chan Gunn Pavilion, rm 221B	By appointment.

**Office hours:** I am happy to meet and discuss course content. This can often be done immediately before or after a lecture. In the event that does not agree with your schedule, please speak to me or email me to make an appointment.

**Email:** attempting to teach or explain material over e-mail can be difficult and ineffective. **If you have detailed questions about course material or concepts, those questions should be addressed in person.** Please seek clarification on course material in class, during breaks, after class, or during office hours with the instructor or teaching assistant. E-mail should be used for a limited number of reasons, including scheduling a time to meet during office hours, in cases of emergency that may cause you to miss an exam, or situations otherwise detailed in class. It may take up to 24 hours to respond to your email during the week and **I do not check my email on weekends**, nor will your teaching assistant. Please keep this in mind around exam time. Please include “KIN 375” in the subject line of emails.

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**OTHER INSTRUCTIONAL STAFF**


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Teaching Assistants: (i) Shalaya Kipp and (ii) Mick Leahy.

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**DESCRIPTION**


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This course focuses on applying our understanding of metabolic, cardiovascular and respiratory system regulation and integration during exercise. The transport and utilization of oxygen during exercise in humans is a primary focus. Third-year standing is a prerequisite.

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**COURSE STRUCTURE**


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The course includes lectures, labs and in-class discussions and tutorials.

**Canvas:** Information about this course, lecture slides, and important reminders will be made available on the course website. This information can be accessed on Canvas, so please check the site regularly. *You are responsible for the information posted to Canvas.*

**Textbook:** McArdle, Katch & Katch. *Exercise Physiology: Nutrition, Energy and Human Performance*. 8<sup>th</sup> edition

You should attend all lectures. You are required to attend all three labs. You are responsible for all material covered in class and any information given whether in attendance or not. You are also responsible for getting your own notes from class, as well as information pertaining to changes in the course outline, readings, assignments, and information related to labs or exams. If you will not be in class due to travel for varsity sport you must email **BEFORE** any assessment takes place to notify us of your absence, and then provide documentation to the instructor.

### SCHEDULE OF TOPICS

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I have provided a tentative schedule of topics below. The schedule is subject to change depending on the pace that we move through course material. Please attend class regularly for updates.

Jan 6. Introduction

Jan 8 and 10. Exercise metabolism. Text Ch. 6

Jan 13, 15, 17. Training to improve aerobic and anaerobic power + gas exchange review. Text Ch. 21

Jan 20. HIIT. Required reading will be distributed.

Jan 22, 24. The physiology of endurance performance.

Jan 27, 29, 31. Ergogenic aids. Text Ch. 23.

Feb 3, 5. Thermoregulation. Text Ch. 25.

Feb 7. Midterm Review

Feb 10. **MIDTERM EXAMINATION**

Feb 12, 14. Cardiovascular review. Text Ch. 15, 16, 17.

Feb 17-21. Reading Week

Feb 24, 26, 28. Microgravity. Text Ch. 27.

Mar 2, 4, 6. High altitude. Text Ch. 24

Mar 9. Kenyan athletes.

Mar 11. Pulmonary pathophysiology of exercise-induced asthma.

Mar 13. Too little and too much exercise: cardiac and cardiovascular consequences.

Mar 16. How does blood know where to go during exercise in health?

Mar 18. How does blood know where to go during exercise in disease?

Mar 20. Refuting the myth of non-response to exercise training. Required reading will be distributed.

Mar 23, 25. Aging. Text Ch. 31

Mar 27, 30, Apr 1, 3. To be determined.

Apr 6, 8. Final Exam Review

**April 14-29. Final Exam Period. DO NOT SCHEDULE TRAVEL DURING THIS TIME.**

## LABORATORIES

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Lab 1. Week of January 27<sup>th</sup>

Lab 2. Week of February 24<sup>th</sup>

Lab 3. Week of March 16<sup>th</sup>

### **Lab manuals and evaluation criteria will be posted on Canvas.**

Labs will be held in Gym G (room 125) of the Kinesiology Learning Centre (Osborne Unit 2). Each laboratory group will be split into smaller groups (typically 4-6 students) to complete the lab tasks (these groups will remain the same for the duration of the course).

### **Student responsibilities**

1. Arrive at your specified lab on time, ideally a couple of minutes early.
2. **Read the lab manual** and complete all pre-reading before arriving at the laboratory. The lab sessions are intense and require significant focus from testers and participants. If you come unprepared and not familiar with the methods, you will compromise your group's ability to complete the protocols.
3. **Every student is expected to attend every laboratory** and be appropriately dressed for exercise. **Every lab involves some practical component that will require at least one group member to undergo assessment.**
4. Every student is expected to participate fully as either a tester or a participant.
5. Work out a schedule of who is doing what tests in advance. When you arrive if there are things you can be doing (i.e. getting weight, height, etc.), start performing these and the TA will give specific instructions if necessary.
6. Do not bring food or drinks into the lab area. If you are going to move equipment around please ask the TA first (some equipment is sensitive to being moved).
7. When you are done with equipment please return to the original location, wipe the equipment down with disinfectant (as necessary), place anything that has come into contact with blood into the red sharps container (as necessary), and place used equipment (e.g., breathing masks, heart rate monitors) in washbasin as directed.

## ASSESSMENTS OF LEARNING

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Laboratory	25%
Midterm Examination	30%
Final Examination	45%

\*\* The final examination is cumulative with a greater emphasis on material after the midterm. Content from the laboratory portion of the course is examinable.

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