



Kinesiology KIN 235 Section 921
(Formerly KIN 275)
Summer 2022

Instructor: Shalaya Kipp
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Office Hours: Thursday @ 4pm and upon request

Class: Tuesday / Thursday 5 -8 pm
TA: Steve Busch
TA e-mail: buschs@student.ubc.ca

Acknowledgement

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (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 their culture, history, and traditions from one generation to the next on this site.

Introduction: This course will provide an introduction to how the muscular, ventilatory and cardiovascular systems respond to acute and chronic exercise. The goal of the course will be to link together different learning modules so that you gain an understand of how the human body respond to acute exercise and how we adapt to exercise training.

Prerequisites

Bachelor of Kinesiology, second year standing.

Resources

- Lecture and Lab Material – All will be available to you on Canvas
- Recommended Text: McArdle, Katch & Katch. Exercise Physiology: Nutrition, Energy, and Human Performance. 8th Edition, 2015.

Format of the Course

Specific course content can be found on the course Canvas Page, and more information detailed in the Course Introduction held Tuesday, May 16th

Tuesdays

- 40-45mins of live, lectures (Separated by 10-15 minute breaks)

Thursdays

- Lab materials will be posted prior to lab. It is your responsibility to read all procedures before the start of class.
- 5:00pm: TA will instruct how to complete lab, lab assignment, and take questions

Evaluation of the Course

- Labs: 20%
 - o You will complete four lab submissions (5% each)
 - o Completed individually – Submissions will require you to analyze your collected data and answer discussion questions
- Midterm: 30%
 - o The Midterm will cover the first three modules and first two labs.
 - o The format will be multiple choice, 2 short answers and 1 long answer question.
 - o If you are unable to attend the midterm for a legitimate reason, the weight from the midterm will be added to the final exam. Please see Kinesiology in-term academic concession policy: <https://kin.educ.ubc.ca/undergraduate/bkin/academic-concession/> There will be no makeup midterms.
- Final Exam: 50%
 - o Content from throughout the whole course, guest lecture and labs will be on the final.
 - o The final will be multiple choice, fill in the blank, calculation, and short/long answer.

Course Overview:

Module 1: Introduction and Energy transfer

Module 2: Metabolism

Module 3: Ventilation

Module 4: Cardiovascular regulation

Module 5: Muscle Function

Module 6: Exercise training

Course Content Schedule

Dates of Class		Tuesdays	Thursdays
Energy Transfer Week 1 – May 17 th & 19 th	5:00pm	Course Introduction and Energy transfer	<i>Lab 1: Calculating Oxygen Consumption</i>
	6:00pm	Energy Transfer in the human body	
	7:00pm	Measurements of Energy Expenditure	Open Lab Hour
Metabolism Week 2 – May 24 th & 26 th	5:00pm	Metabolism during Exercise	<i>Lab 2: Wingate</i>
	6:00pm	Energy Systems and Transfer	
	7:00pm	Energy and Metabolism Review	Open Lab Hour
Ventilation Week 3 – May 31 st & June 2 nd	5:00pm	Guest Lecture	<i>Lab 3: Pulmonary Function</i>
	6:00pm	Recorded lecture: Gas Exchange	
	7:00pm	Recorded lecture: Pulmonary Ventilation	Open Lab Hour
Cardiovascular Regulation Week 4 – June 7 th & 9 th	5:00pm	Review Session	<i>MIDTERM</i>
	6:00pm	Functional capacity of Cardiovascular System	
	7:00pm	Cardiovascular Regulation and Integration	Open Lab Hour
Muscle Function Week 5 – June 14 th & 16 th	5:00pm	Muscle Function	<i>Lab 4: VO₂max and Thresholds</i>
	6:00pm	Neural Control of Human Movement	
	7:00pm	Skeletal Muscle Fatigue	Open Lab Hour
Exercise Training and Performance Week 6 – June 21 st & 23 rd	5:00pm	Adaptations to Resistance Exercise	Review Session
	6:00pm	Adaptations to Aerobic Exercise	
	7:00pm	Technology and Physiology in Sport	Open Lab Hour

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 of their actions.

Details of the policies and how to access support are available on [the UBC Senate website](#).

Course Policies

Please make sure you are familiar with the academic policies and procedures.

Academic Integrity

Students are expected to follow UBC policies for academic integrity and academic misconduct, which includes practices around plagiarism, referencing and citation, and copyright. For more see, UBC's [Learning Commons Academic Integrity resources](#)[Links to an external site..](#)

Accessibility

If you have any challenges accessing materials that will impact your success in this course, UBC's Centre for Accessibility can support your needs by providing appropriate accommodations to support you.

- Web: [UBC's Centre for Accessibility website](#)[Links to an external site.](#)
- Email: accessibility@ubc.ca

Learning Analytics

Some of the learning technologies used for this course collect data to support the improvement of teaching and learning. This includes the collection of data related to overall class progress to provide personalized feedback, engagement in discussion forums to support the fostering of community within the course, and how resources are being accessed to support improvements to the course design. To learn more about learning analytics at the Faculty of Education and at UBC, see the [What is Learning Analytics?](#)[Links to an external site.](#) page.

COVID-19 Safety:

If you are sick, it is important that you stay home. Complete a self-assessment for COVID-19 symptoms here: <https://bc.thrive.health/covid19/en>. In this class, the marking scheme is intended to provide flexibility so that you can prioritize your health and still succeed.

You are required to wear a non-medical mask during class and lab for your own protection and the safety and comfort of everyone else in the class. For our in-person meetings in this class, it is important that all of us feel as comfortable as possible engaging in class activities while sharing an indoor space.

Nonmedical masks that cover our noses and mouths are a primary tool for combating the spread of COVID-19. Further, according to the provincial mandate, masks are required in all indoor public spaces including lobbies, hallways, stairwells, elevators, classrooms and labs. There may be students who have medical accommodations for not wearing a mask. Please maintain a respectful environment. UBC Respectful Environment Statement.

If Shalaya or the TA is feeling ill, they will not come to class and will communicate this as early as possible via a Canvas announcement. If this is the case, the lecture will be offered via Zoom and will be recorded.