

McGill University
Department of Kinesiology and Physical Education

PHYSIOLOGY IN SPORT AND EXERCISE
EDKP 391-001

COURSE OUTLINE, Fall 2021

Instructor: Ross Andersen, Ph.D.
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TA :

Office Hours: **Wednesday 3:00-4:00PM**

Class Schedule: Monday and Wednesday, 1:05-2:25 PM
Room 405 Currie Gym

COURSE DESCRIPTION:

This course provides the necessary understanding of the physiological adaptations that occur in the human body, in response to both acute bouts and chronic exercise. Teaching will be re-enforced through “real world” examples and case studies, relating the information delivered in this course to the field of physical education instruction.

COURSE OBJECTIVES:

Upon completion of this course, the student will have:

- a fundamental knowledge and understanding of how the human body responds to both chronic and acute exercise.
- a basic scientific insight to physical function in both normal and pathological conditions and how they are affected by exercise.
- a basic knowledge and appreciation of the scientific terminologies as related to the field.
- an enthusiasm for learning and an appreciation for integrated human exercise physiology!

Regarding the 12 Exit Teaching Competencies required by the Ministère de l'Éducation, du Loisir et du Sport (MELS), this course addresses the following points:

- Competency 1: To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students.
- Competency 2: To communicate clearly in the language of instruction, both orally and in writing, using correct grammar, in various contexts related to teaching.

REQUIRED COURSE TEXT:

- McArdle, W.D., Katch, F.I., and Katch, V.L. Exercise Physiology - Energy, Nutrition, and Human Performance. Lippincott, Williams & Wilkens, 2014 8th edition.

If you would like to review any supplementary texts, please see the instructor for suggestions.

LECTURE SCHEDULE (subject to change)		
Week	Date	Description
1	September 1 September 8	Introduction to course Chapter 1 : Nutrition
2	September 13 September 15	Chapter 2: Nutrition
3	September 20 September 22	Chapter 3 and 4 Energy for Physical Activity
4	September 27 September 29	Chapter 7: Energy Transfer during Exercise Quiz 1 Chapter 8: Measurement of Human Energy Expenditure
5	October 4 October 6	Chapter 9-11: Energy Expenditure and Capacities
6	October 11 October 14 (Thurs)	Thanksgiving Midterm 1
7	October 18 October 20	Chapter 12: Pulmonary Chapter 12-13: Gas exchange and transport
8	October 25 October 27	Chapter 14: Dynamics of Pulmonary ventilation Chapter 15: Cardiovascular System
9	November 1 November	Chapter 16: Cardiovascular regulation and integration
10	November 8 November 10	Chapter 17: Functional capacity of the cardiovascular system Midterm Exam 2
11	November 15 November 17	Chapter 21: Training for aerobic and anaerobic power
12	November 22 November 24	Chapter 18: Skeletal muscle: structure and function Chapter 22: Training muscles to become stronger
13	November 29 December 1	Chapter 23: Special aids to exercise Chapter 28: Body Composition Assessment
14	December 6	Make Up / Review Day If Needed
	EXAM PERIOD	FINAL EXAM

***Students are advised to keep a copy of the course syllabus for future reference.**

***All changes in present schedule will be announced prior to date.**

COURSE EVALUATION:

In-class quizzes.....	40%
Seminar assignments (4 @ 5% each).....	20%
Comprehensive Final Exam (Exam Period).....	40%

- This Rubric will change if Classes get changed to completely remote

****Students are responsible for all material covered in lectures ****

Exams may be rescheduled before official university travel or in the event of an emergency. Hospitalization or family death defines an emergency. I must be notified before the exam. In the event of illness, I will require a note from your health care provider which indicates that they are aware that you will miss an exam due to the illness. **In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.**

***It is your responsibility to contact the course instructor ASAP if you will or have missed an in-class examination. If you will or have missed a final exam, you must contact the department for a supplement.**

Notes:

- Late submission of assignments or missing part of the assignment: penalty of 10% for each day (or part thereof) that the assignment is late. It is student's responsibility to verify that the assignments and related files were saved in My Courses. No substitution or additional work can be provided in replacement of missing assignment.
- As specified by Students Affairs Office "Undergraduate students taking courses on the Campus seeking medical accommodation for tests/assignments/exams, must seek accommodation from the Student Affairs Office not from individual instructors".
- Documents need to be formatted in Word format. No documents will be reviewed after 10 days past the submission date. Failure to meet the requirement will result in a "grade 0". No exception.
- Request for reassessment of assignment should be done within 10 working days after receiving the grade in *My Courses*. As for official reread "...the overall grade may be lowered or raised, or they may remain the same, as a result of the re-read".
- The final grades will not be revised / upgraded arbitrarily. Decimal points will be rounded off to the nearest grade. For example, 79.5% will be rounded to 80%. A 79.4% will be rounded to 79%. The marks are final and non-negotiable.

Health and safety guidelines

Please note that this format for the delivery of this course is unusual and must respect the guidelines of health and safety ([General health guidelines | Coronavirus information - McGill University](#)). It is explained by our current extraordinary circumstances, and aims to allow you, as students, to complete this term with the requisite knowledge for this course, and to succeed in your assessments. I ask for everyone's collaboration and cooperation in ensuring that these guidelines are respected. On August 6, the Government of Quebec announced the government directives for the start of the Fall term, including no distancing in classrooms. Based on this announcement and our previous planning, McGill developed directives, which are detailed on the University's Coronavirus website. Please note that these condition may change at anytime following new directives from the government or the University.

DISTANCING

The status of physical distancing is now:

- No distancing in classrooms,
- One metre in common areas, including shared research spaces, laboratories, offices, and other workplaces.
- Two metres required when eating or drinking, working out in fitness centres.

MASKS

Procedural masks **are required in all indoor spaces at McGill**, including classrooms.

However, Professor or presenters do not need to wear a mask if you are teaching and remain at least two metres away from others. When students are in class on campus, i.e., in person, they are required to wear masks.

DAILY HEALTH CHECK FORM

The daily health check form is still a requirement for all McGill staff before you come to campus. Students are strongly encourage to assess their health using the self-assessment found in [General health guidelines | Coronavirus information - McGill University](#)

CLASSROOM VENTILATION

- All centrally booked classrooms that are being used in the Fall 2021 term have been assessed to ensure ventilation follows the Government's COVID-19 guidelines.

VACCINATION

- Proof of vaccination is not required at this time for students and instructors to engage in teaching activities on our campuses.
- McGill have been promoting vaccination to the members of our community, including through regular emails and a social media campaign, and will host a walk-in vaccination clinic on the downtown campus at the start of term.
- Information on vaccinations (booking appointments, registering vaccines received outside of Quebec, resources) can be found on the Get Vaccinated webpage.

IMPORTANT DATES AT MCGILL:

Fall Term

- Classes begin Wednesday Sept 1 * (except for Dentistry and Medicine students – please see faculty schedules)
- Add/Drop deadline Tuesday, September 15
- Course or University Withdrawal with refund deadline Tuesday, September 22
- **NEW!**Course or University Withdrawal with NO REFUND October 27, 2020
- Classes end Monday, December 6
- Final Exams begin Tuesday, December 7
- Final Exams end Tuesday, December 21 (11 days, including evening exams)

ACADEMIC STATEMENTS:

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in **English** or in **French** any written work that is to be graded. This right applies to all written work that is to be graded, from one-word answers to dissertations. Instructor addition: French/English dictionaries will be permitted during exams (however, supplemental notes marked within the dictionary will not be tolerated, *see following statement of **academic integrity***).

McGill University values **academic integrity**. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see: www.mcgill.ca/students/srr/honest/ for more information).

L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter: www.mcgill.ca/students/srr/honest/).

Instructors who may adopt the use of text-matching software to verify the originality of students' written course work must register for use of the software with Educational Technologies (support.ist@mcgill.ca) and must inform their students before the drop/add deadline, in writing, of the use of text-matching software in a course.

ACADEMIC EXPECTATIONS:

- Check MyCourses for notes prior to attending lecture
- Reading assignments must be completed before attending lecture.
- Revise notes during and after each class.
- ****If you do not understand something, please ask!****
- Requests for supplemental assignments to raise grades will **NOT** be accepted