

**McMASTER UNIVERSITY**  
***Department of Kinesiology***

**KINESIOLOGY 4S03 - EVENING**

**PHYSICAL ACTIVITY IN CHRONIC HEALTH IMPAIRMENTS**

Course Outline

Winter Term, 2018

Lecture and student seminars

Tuesday 7:00 to 10:00 pm

Randy Calvert

Office Hours: TBA (or by appointment)

CNH B107

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**COURSE OBJECTIVES**

1. To examine the exercise characteristics in selected populations, primarily those with chronic health impairments.
2. To provide opportunities to discuss, summarize, and constructively criticize current research being done on exercise responses in special populations.
3. To further understand the various roles physical activity/education plays for the individual with special needs (i.e. diagnosis; rehabilitation; improved health and well-being).

**ACADEMIC INTEGRITY**

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences (e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript reading "Grade of F assigned for academic dishonesty", and/or suspension or expulsion from the university). It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at:

<http://www.mcmaster.ca/univsec/policy/AcademicIntegrity.pdf>

The following illustrates only three forms of academic dishonesty:

- Plagiarism (e.g. the submission of work that is not one's own or for which other credit has been obtained),
- Improper collaboration in group work.
- Copying or using unauthorized aids in tests and examinations.

**READINGS and LECTURE NOTES**

Required readings from peer-reviewed publications will be assigned in class. Lecture notes will be available on A Venue to Learn in PDF format.

**TOPICS TO BE COVERED****1. Nutritional Disorders****Obesity**

- discussion of obesity as a primary disability in the general population
- etiological theories of obesity
- pathophysiology of obesity, and how this relates to exercise performance
- role of exercise as a therapeutic tool for the obese

**Eating Disorders**

- discussion of the relationship between the common eating disorders of anorexia nervosa and bulimia and physical activity characteristics within these special populations
- physiological effects of eating disorders on exercise performance

**2. Neuromuscular / Degenerative / Chronic Disorders**

- description and analysis of some of the more common degenerative disorders in humans
- role of exercise as a rehabilitative tool in degenerative disease

**3. Diabetes / Metabolic Syndrome**

- description of diabetes as a significant metabolic disorder affecting both children and adults
- comparison of Type I and Type II diabetes
- concerns and precautions for exercise and diabetes

**4. Respiratory Disorders**

- exercise implications of restrictive lung disease
- exercise implications of obstructive lung disease (asthma, cystic fibrosis, COPD)

**5. Chronic conditions of the Elderly**

- exercise implications of cognitive disorders (the Dimentias)
- exercise implications of degenerative bone disorders

**6. Other**

- exercise implications associated with disorders/conditions as time permits

**STUDENT RESPONSIBILITIES**

1. Attendance at lectures and seminars.
2. Write three (3) in-class reading tests (details will be provided in class):
3. Seminar presentation / handout - group.
4. Seminar paper – individual.
5. Evaluation of 2 peer presentations
6. Final evaluation.

**EVALUATION**

*All instructors for all undergraduate courses, except supervised study, thesis and research/study courses, be required to return grade material equal to a minimum of 10% of the session's total mark prior to the final date which a student may withdraw from a course without academic penalty."*

*This date is not the "drop and add" date but Friday March 16, 2018 for this Winter term courses (the last day for canceling courses without failure by default), students must be given back work equal to 10% of the grade.*

Reading Tests	20%	(first = 3%, second =7%, third 10%)
Seminar Presentation	30%	5% peer evaluation 20% instructor evaluation 5% handout
Seminar Paper (individual)	25%	
Final Evaluation	25%	

**SEMINAR PRESENTATION / PAPER - beginning TUESDAY February 6, 2018**

1. Students will work in groups of 3 or 4. Each group must propose a seminar topic for approval. The topics must address the impact of physical activity on the selected population.
2. Each group will deliver a 30 minute (maximum) presentation of their topic. The presentation will address the topic in a concise, systematic format, incorporating information obtained from **at least 6 recent** peer reviewed (published 2013 to 2017) research studies. The presentation should be informative to the class and not be only a summary of the studies.
3. A one(1) page summary of the presentation should be submitted at the time of presentation and sent electronically to be posted on Avenue.
4. Each student will hand in a summary of **two (2)** of the research studies used in the presentation (i.e., each student is responsible for the write-up of **2** different readings). The summary will be no longer than **1** typed page per article, plus a **1-2** page commentary comparing / contrasting / criticizing the **2** papers. A photocopy of the front page of each article (with abstract) must be included. Papers are due in the class of the seminar presentation.
5. Evaluation criteria will be provided for the presentation/handout and paper to guide the format.

**IMPORTANT NOTES:****ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES**

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone (905) 525-9140 ext. 28652 or email [sas@mcmaster.ca](mailto:sas@mcmaster.ca). For further information, consult McMaster University's Policy of Academic Accommodation of Students with Disabilities.

<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf>

**ON-LINE LEARNING RESOURCES**

In this course, we will be using A Venue to Learn. Lecture notes, class schedule, and other notices may be posted electronically. Students should be aware that, when they access the electronic components of this course, private information such as first and

last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

### **USE OF COURSE MATERIALS**

Course materials provided by the instructor are for use by students registered in this class only. Under no circumstances are these materials to be shared, posted or sold to a third party without permission from the instructor. This includes, but is not limited to, online posting of instructor provided lecture/lab notes, online lectures, recordings of lectures, or any lab materials on a website other than the Avenue site designed for the course.

### **ABSENCE FROM CLASS**

In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work". Please note these regulations have changed beginning Fall 2015.

### **POLICY REGARDING DEFERRED TESTS AND EXAMS**

Students who miss the term test or final exam for legitimate reasons such as illness may be allowed to write a deferred or "make-up" test. In all instances, appropriate documentation must be submitted to the Office of the Associate Dean, Faculty of Science.

Students who miss a Registrar-scheduled final exam can apply to the Associate Dean's office for permission to write in the deferred final exam schedule. In all cases, appropriate documentation must be submitted to the Office of the Associate Dean, Faculty of Science, for consideration of deferred examination permission. Under no circumstances will the instructor re-schedule a final exam for individual students.

### **MODIFICATIONS TO THE COURSE:**

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.