MCMASTER UNIVERSITY
Department of Kinesiology
Kinesiology 4Q03
Pediatric Exercise Physiology

Winter Term, 2016
Monday & Wednesday, 08:30 - 09:20 (IWC E201)
Tuesday, 11:30 - 13:20 (IWC A102K)

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COURSE DESCRIPTION
This course is oriented for 3rd and 4th year students and provides an examination of age- and maturity-related aspects of exercise physiology. KIN 4Q03 builds on the student’s background in basic exercise physiology and growth, maturation and physical activity. This is an exercise physiology course.

COURSE OBJECTIVES
1) To examine the acute and chronic effects of exercise and training on physiological function in healthy children;
2) To expose students to technical considerations in exercise testing and prescription with children;
3) To provide an introduction into the role of exercise as medicine for children with a chronic medical condition

REQUIRED READINGS
A list of required readings will be provided on the first day of class. These readings are available electronically through the McMaster Library or will be provided by the instructor, if necessary. The student is NOT required to purchase textbooks or custom course-ware.

COURSE FORMAT
The course is structured so that a portion of lectures are delivered by the instructor, with guest presenters. Seminars and lab demonstrations are presented by groups of students. The Teaching Assistant will facilitate development of the lab demonstration and oversee testing, but with the expectation that groups of students will conduct testing. The final structure will be determined once the final class enrollment is established.

COURSE OUTLINE
Week 1 (January 4th)
Monday: No class
Tuesday: No class
Wednesday:   Introduction to Pediatric Exercise Physiology (Instructor)

Week 2 (January 11th)
Monday:   Ethical issues in Pediatric Exercise Physiology (Instructor)
Tuesday:   Free time to organize into Seminar and Lab groups
Wednesday:   Exercise testing considerations in Pediatric Exercise Physiology (Instructor)

Week 3 (January 18th)
Monday:   Accounting for size: Separating growth from exercise effects (Instructor)
Tuesday:   1st hour: Lab group 1 – development meeting
           2nd hour: Lab group 2 – development meeting
Wednesday:   Age-related changes in perceptual responses to exercise (Instructor)

Week 4 (January 25th)
Monday:   Review day
Tuesday:   1st hour: Lab group 3 – development meeting
           2nd hour: Lab group 4 – development meeting
Wednesday:   Reading Test #1

Week 5 (February 1st)
Monday:   Cardiorespiratory response and adaptation to exercise and training (Seminar #1)
Tuesday:   1st hour: Lab group 5 – development meeting
           Lab development meeting by appointment
Wednesday:   Metabolic response and adaptation to exercise and training (Seminar #2)

Week 6 (February 8th)
Monday:   Immunologic response and adaptation to exercise and training (Seminar #3)
Tuesday:   Lab development meeting by appointment
Wednesday:   Reading Test #2

Week 7 (February 15th)  READING WEEK

Week 8 (February 22nd)
Monday:   Endocrine response and adaptation to exercise and training (Seminar #4)
Tuesday:   Lab development meeting by appointment
Wednesday:   Thermoregulatory response and adaptation to exercise and training (Seminar #5)
Week 9 (February 29th)
Monday: Development and trainability of body composition (muscle, bone, and adiposity) (Seminar #6)
Tuesday: Lab development meeting by appointment
Wednesday: Development and trainability of aerobic fitness (Seminar #7)

Week 10 (March 7th)
Monday: Reading Test #3
Tuesday: Lab Demonstration #1
Wednesday: Development and trainability of muscle strength and power (Seminar #8)

Week 11 (March 14th)
Monday: Physical activity assessment (Guest Lecture)
Tuesday: Lab Demonstration #2
Wednesday: Nutritional considerations for active children (Instructor)

Week 12 (March 21st)
Monday: Reading Test #4
Tuesday: Lab Demonstration #3
Wednesday: Clinical exercise physiology: Introduction (Instructor)

Week 13 (March 28th)
Monday: Childhood Obesity (Guest Lecture)
Tuesday: Lab Demonstration #4
Wednesday: Exercise as Medicine: Part 1 (Instructor)

Week 14 (April 4th)
Monday: Exercise as Medicine: Part 2 (Instructor)
Tuesday: Lab Demonstration #5
Wednesday: Class review

COURSE EVALUATION

Reading Tests (4 × 5%) 20%
Seminar 30%
Lab Demonstration 30%
Final Examination 20%
Total 100%
READING TESTS
Four reading tests will be completed, in class, throughout the term. These will be multiple choice examinations, based on previous weeks’ readings and lectures.

Reading Test #1: Wednesday, January 27
Reading Test #2: Wednesday, February 10
Reading Test #3: Monday, March 7
Reading Test #4: Wednesday, March 21

SEMINAR and LAB
The purpose of the seminars and labs are to give each student the opportunity to gain in depth knowledge about a specific area in pediatric exercise physiology. The labs also afford an opportunity for “hands-on” experience with exercise testing in children. The seminar will consume an entire class (i.e., 40 min seminar, 10 min question period). The lab slot is scheduled for 2 hours. Seminars and Lab Demonstrations do not necessarily build on each other and are not to be delivered by the same groups of students. Additional information will be provided in class. *NOTE: The exact configuration of seminar and lab demonstrations will be based on the final number of students.

FINAL EXAMINATION
Questions on the final examination will cover the entire course content, including lab demonstrations and special guest presentations. The format will be multiple answer questions and short answer questions. Additional information will be provided closer to the end of class.

POLICY REGARDING DEFERRED TESTS AND EXAMS
Students who miss a reading test or final exam for legitimate reasons such as illness may be allowed to write a deferred or "make-up" test. For a reading test “make-up”, the date, time, and location will be determined by the instructor. 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.

MISSED STUDENT ABSENT FORM
If you are absent from the university for a minor medical reason, lasting fewer than 3 days, you may report your absence, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons (eg. Religious, personal) must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. When using the MSAF, report your absence to INSTRUCTOR EMAIL@mcmaster.ca. Then contact the instructor/lab TA immediately (normally within 2 working days) by email/telephone/in person to learn what relief may be granted for the work you have missed, and relevant details such as revised deadlines, or time and location of a make-up exam. Please note MSAF regulations have changed beginning Fall 2015.
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.

USE OF COURSE MATERIAL
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 not limited to, online posting of instructor provided lecture/lab notes, online lectures, recordings of lectures, or any lab materials on a website other that the Avenue site designed for this course.

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. 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

MODIFICATION OF 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.