YORK UNIVERSITY  
Faculty of Health  
School of Kinesiology and Health Science  

KINE 3340 3.0 (A)  
Growth, Maturation and Physical Activity  

2015 Fall Term  
Section A: Monday / Wednesday 1:00 – 2:20pm – SC 302  

Course Director: Dr. Angelo Belcastro  
Office: N. Bethune College Room 333  
Phone: (416) 736-2100 ext 21088  
Email: anbelcas@yorku.ca  

Office hours are on Tuesday from 11:00am to noon and Thursday from 1:00-2:00pm in Room #333 N. Bethune College. Please pre-arrange a meeting through the Learning Management Platform (MOODLE) as necessary. NOTE: the instructor is generally available for questions following the class.  

Course Teaching Assistant: Ms Asal Moghaddaszadeh  
Office: N. Bethune College Room 121  
Email: asalmz@yorku.ca  
Contact TA directly for meeting times.  

COURSE DESCRIPTION:  

This course introduces students to human growth and maturation from various perspectives and processes (i.e., biological, cognitive and social/emotional) focused primarily across the first two decades. A main objective is to provide students with both a theoretical and experiential framework for understanding human functional and motor development by examining the interaction(s) between the biological/physical, cognitive and social domains related to the acquisition of motor abilities and participation in physical activity/movement. The course will also investigate the impact of children’s physical activity and/or physical inactivity (sedentary behaviours) on the processes of growth and maturation among children and youth, comparison to adulthood will be included where appropriate.  

COURSE OBJECTIVES:  

By the completion of this course, successful students will be able to:  

1. describe the normal sequence of biological growth and maturation during the first two decades of life and their relationship to motor performance associated with physical activity
2. explain foundations of motor development related to human functional
development and how they impact physical activity and physical activity
participation
3. identify appropriate research designs, and understand methods of growth
measurement and physical activity/fitness assessment in children and youth
4. describe how other areas of human functional development (e.g. social,
cognitive) relate to growth and maturation
5. identify and evaluate methods of measuring physical activity of children and
adolescents
6. develop and apply critical thinking skills regarding the physical growth,
maturation, and development of children in relation to physical education,
physical activity, and training

COURSE LEARNING OUTCOMES:

Students should be able to demonstrate mastery of the following abilities:
• Identify and communicate basic facts and terminology related to growth,
maturation and physical activity.
• Contextualize and communicate information of generally accepted concepts and
principles in growth, maturation and physical activity
• Be able to think critically and understand theory(ies) and recurrent
developmental issues in growth, maturation and physical activity.
• Apply knowledge to particular problems or situations (problem-solve)
encountered within growth, maturation and physical activity - be aware of the
limits in knowledge and methodologies when analyzing, evaluating, interpreting
and disseminating information.

SUGGESTED COURSE TOPICS

The instructor will attempt to cover the following sections and topics but not
necessarily in the order presented below and/or in formal lectures. Some topics
may be covered in assigned readings and/or assigned projects depending on the
circumstances and needs of the class. The topics include:

a. Definitions and introduction to the study of human growth,
development, maturation and physical activity – ages and stages;
research designs;
b. Growth changes of children and adolescents during the pediatric
years – profiles, status and assessments.
c. Identifying and understanding a pediatric healthy active lifestyle.
What do Physical Activity Guidelines tell us?
    ▪ Impact, value and benefits of children/adolescents PA – what is
the evidence?
    ▪ Physical activity participation – measurement, characteristics,
patterns and types of PA during childhood and adolescence.
d. Describing human development - timing and sequence of changes in developmental factors (motor skills, psycho-social, and physical aspects):
   - Motor skill development – reflexes; fundamental motor/movements skills:
   - Cognitive and Social aspects of growth and development models of physical activity behaviours – ecological approach
   - Physical aspects of growth and development – referencing growth; issues of size-dependent and size-independent changes;

e. Describing and estimating maturity status during adolescents (puberty). Impact of maturity-associated variations on physical activity outputs.

f. Physical activity and trainability in children and youth;

Other Topics – if time allows

g. Consequences of obesity on motor performance for children and adolescence;

h. Physical activity of children and adolescence with chronic conditions;

READINGS and TEXTBOOKS:

Supplemental Textbooks*:

*[While students do not necessarily have to purchase their own copy of these textbooks, specific information and/or pages may be identified as suggested readings. Copies are available in the library]

Required Readings – Course Moodle Notes; Selected Assigned Mandatory/Required Readings: Throughout the course the instructor will provide lecture material as required readings normally in the form of PowerPoint slides on the learning management software (Moodle) for KINE 3340(A). It is the student’s responsibility to access Moodle to receive this material. [NOTE: Information on slides may be incomplete and students are required to complete (fill-in) material on slides from in-class lectures, discussions and generally participate in class]. As well, selected required readings (from research papers, websites and/or textbook) will be identified in class. All in-class lecture material, discussions, posted moodle notes and required readings may be used for assessments.

Ancillary Learning Materials: a) Students are encouraged to complete on their own time, the Centre for Disease Control (CDC) Interpretation modules on Growth and Development found at the web site http://depts.washington.edu/growth/index.htm. The information from these sources is not explicitly required for completion of the course but is presented as

COURSE EVALUATION: IMPORTANT NOTE: To be successful it is required that you attend the regularly scheduled lectures.

Required Grading Components (see following notes for further information)

a) In-class Mid-Term Assessment* 25% (October 7th, 2015)
b) Children's Physical Activity Report** 40% (in two elements below)
   i. Data acquisition and summary - 15% (due on October 21st)
   ii. Data analysis and discussion - 25% (due on November 25th)
c) Final Exam* 35% (scheduled for December)

*MID-TERM and FINAL Assessments: The material for the mid-term and final assessments will be sequential in nature but non-cumulative when performed in the appropriate sequence (i.e., mid-term; final). In the case where a student does not complete mid-term test/assessment (and appropriate documentation is provided by the student) then the final exam will be cumulative and count towards 50% of the final grade. Assessments/exams may include combinations of multiple choice, short answer and written long answers and will cover content and discussion from lectures and any mandatory/required readings. Tests/assessments will require students to demonstrate in-depth knowledge and application of course content.

**CHILDREN'S PHYSICAL ACTIVITY REPORT: Students will be required to submit a report (in two parts) that examine the relationships among age, gender and physical activity behaviours and outputs. The first part of the report (analytical skills) deals with collecting and/or summarizing PA output from elementary school children and university students. This is to be submitted on Wednesday October 21st by 11:59pm through the moodle site ONLY (no other submission methods will be accepted). The second part of the report (critical thinking, understanding theories and problem solving) deals with explaining and understanding the relationships among age, gender, and PA outputs. This is to be submitted by Wednesday November 25th, 2015 by 11:59 pm through the moodle site ONLY (no other submission methods will be accepted). More detailed information on the format of the report will be available on the moodle site later in September. The analysis and report will be based on a combination of your own data collection and an inventory of ‘real’ data generated earlier this year. The report must demonstrate inquiry, critical analysis and problem solving abilities.

Grading: The grading scheme for this course conforms to the 9-point grading system used in undergraduate programs at York. Assignments and tests/exams will be given a numeric grade out of 100 which will correspond to a letter grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc). Should a student have issue with the grade received, a written submission to the Course Director must be received within
one week of receiving the grade with specific detail on why the grade should be changed. Re-marking may result in the grade going up, down, or staying the same.

**Missed test/exam:** Students with a documented reason for missing a course test/exam, such as illness, compassionate grounds, etc. which is confirmed by supporting documentation (e.g. doctor's letter specifying date/duration of illness) may request accommodation from the Course Director. At the discretion of the Course Director, such students may write a missed mid-term test/exam as a make-up test/exam in conjunction with the final. Further extensions or accommodation will require students to submit a formal petition to the Faculty.

**Assignment Submission:** Proper academic performance depends on students doing their work not only well, but on time. Accordingly, assignments for this course must be received on by the due dates (to be announced in class). Report assignments are to be handed in electronically as described on the Moodle Learning Management Software.

**Lateness Penalty:** Assignments received later than the due date will be penalized (3 percent per day per assignment). Exceptions to the lateness penalty for valid reasons such as illness, compassionate grounds, etc., may be entertained by the Course Instructor but will require supporting documentation (e.g., a doctor's letter).

**Learning Management Platform - Moodle:** Students will receive class notes, reminders and notifications re: additional required readings via York's Moodle platform. Under normal circumstances, class lecture materials will be posted to students before the class. It is expected that students review the material prior to the class. The Moodle Platform is the most effective means of communication with the instructor/teaching assistant between classes and/or to request an appointment.

**IMPORTANT COURSE INFORMATION FOR STUDENTS**

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage (see Reports, Initiatives, Documents) at [http://www.yorku.ca/secretariat/senate_cte_main_pages/ccas.htm](http://www.yorku.ca/secretariat/senate_cte_main_pages/ccas.htm)

- York's Academic Honesty Policy and Procedures/Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation