Issues and Approaches in Kinesiology
KIN 104

Instructor: William McIlroy, PhD
Office: BMH 3030
Email: wmcilroy@uwaterloo.ca

Classes: Tuesday, Thursday 10:30AM - 11:55AM
Room: HH 159

Calendar Overview:

An introduction to the issues and approaches used in kinesiology. Presentation of case studies will illustrate the foundational knowledge and procedures used by kinesiologists. Emphasis will be placed on practical skills, critical analysis, problem solving, and the integration of knowledge across the breadth of kinesiology.

Course learning objectives:

1. To understand the concepts that unify the discipline and practice of Kinesiology.
2. To understand the fundamental relationships between movement and health / performance.
3. To introduce the fundamental concepts associated with movement assessment and exercise prescription.
4. To provide students with a context for Kinesiology, and the various courses, fundamental content and skills that they will encounter over their degree program and work terms.
5. Provide guidance for future courses/programs and potential career objectives.

Student Assessment:

1) Midterm Exam (35%): held in class Tuesday October 27, 2015.

2) Poster presentation (15%): Students will form working groups of 7-8 students. A controversial topic must be selected and approved. Guidance provided in class will assist in topic selection, and approaches for covering the topic. Posters will be presented in five class meeting times of the course. This will comprise of 15% of the final grade. (Note: one-third of this grade (5%) will be obtained from the average submitted by student peers while the professor will supply the other two-thirds (10%)).

3) Grading posters (10%): Students will grade posters according to guidelines. Submission of poster grades will provide 10% of the individual student's grade.

4) Final Exam (40%): A final exam is scheduled during the final examination period.

Accommodations of any sort will only be considered with verified Verification of Illness Forms (VIF), or officially sanctioned university activity requiring the student to be elsewhere.
Topics/Themes to be covered

- History of the discipline and profession
- Being a ‘reflective skeptic’
  - Hypotheses, questions and knowledge
  - Principles of science applied to everyday life
- Skills for consuming Kinesiology research and science
  - Where to find sources
  - Developing skills for interpreting data
  - Individuals versus populations
- Facts and fallacies in Kinesiology* (getting started on your project)
- Movement: The Fundamentals
  - Basic requirements for movement
  - Walking, running, jumping
  - Reaching, grasping, throwing
  - Phylogeny and ontogeny
  - Learning how to move
  - Principles of variability and adaptability
- Qualitative and quantitative measurement and assessment skills
  - Component versus functional measurement
  - Developing observation skills
- Designing exercises
  - Specific exercises for specific purposes
  - Progression of exercise
  - Behavioural change
- Cardiovascular, musculoskeletal and neurologic disease
  - Prevention of illness
  - Relationship between movement and health
  - Diet, nutrition and health
- Work and health
  - Ergonomics: Basic principles
  - Injury prevention
- Rehabilitation
  - Principles of rehabilitation
  - Compensation and recovery
  - Factors that enhance/hinder performance
- Elite performance
  - Determinants of elite performance
  - Factors that enhance/hinder performance
- Research and the Science of Kinesiology
- Paths through Kinesiology and Career options
**Course Expectations and Responsibilities:**

Supplementary Readings and Resource Materials will be identified throughout the course. Details of the readings and lecture material will be provided through access to UW-LEARN.

For each class, students are expected to:

1) Have already read the preparatory readings or handouts located in the relevant class folder posted on UW-Learn.

2) Have access in class to appropriate materials, such as worksheets, notes or checklists, identified in the relevant class folder posted on UW-Learn.

3) Participate during activities.

4) Not interfere with others’ participation in, or attention to the class.

Some classes have required preparatory readings (i.e. to be read before class). In addition each class may have assigned readings that complement the activities and material presented in the class. These will also be used as sources of questions for midterm and the final exam. Research and preparation for poster presentations is substantial. All material from all lecturers and required readings will be eligible for inclusion on exams.

**Poster Presentations:**

You will be assigned to a group. The group will choose a topic based on interest and availability of information. The topic must be expressed as a hypothesis or controversy.

**Presentation:** Dress professionally. Submit the powerpoint presentation to Professor McILROY (wmcilroy@uwaterloo.ca) the day prior to the presentation. The poster must be mounted in Burt Matthews Hall by 4:30pm on the day of presentation.

**Student Grading:** All students will read and grade all posters. Grades are due (submitted on-line) on the last day of term classes (December 3, 2015 by 5 PM EST).

Additional details will be provided in class.
**Academic Integrity:** To create and promote a culture of academic integrity, the behaviour of all members of the University of Waterloo is based on honesty, trust, fairness, respect and responsibility.

**Grievance:** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read *Policy 70 - Student Petitions and Grievances*, Section 4, [http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm).

**Discipline:** A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under *Policy 71 - Student Discipline*. For information on categories of offenses and types of penalties, students should refer to *Policy 71 - Student Discipline*, [http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm).

**Appeals:** A student may appeal the finding and/or penalty in a decision made under *Policy 70 - Student Petitions and Grievances* (other than regarding a petition) or *Policy 71 - Student Discipline* if a ground for an appeal can be established. Read *Policy 72 - Student Appeals*, [http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm).

“Note for Students with Disabilities: The Office for Persons with Disabilities (OPD; [http://www.studentservices.uwaterloo.ca/disabilities/](http://www.studentservices.uwaterloo.ca/disabilities/)), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.”