

**The University of Western Ontario  
School of Kinesiology  
Kin 3337A  
Fall 2018**

**Lecturer:** Glen Belfry PhD                      **Office:** Thames Hall: rm. 2148  
**Office hours:** Arranged by appointment.  
**Phone:** 519-661-2111 ext. 88364  
**Email:** [gbelfry@uwo.ca](mailto:gbelfry@uwo.ca)

**Lab Coordinator:** Michael Herbert MHK    **Office:** Kin Undergrad Office;  
**Phone:** 519-661-2111 ext. 88675  
**Email:** [mherber5@uwo.ca](mailto:mherber5@uwo.ca)

**Calendar Description:** The scientific basis of physical fitness appraisal; the construction and the effective administration of physical fitness tests, including motor fitness, cardiovascular endurance fitness and body composition; individual fitness appraisal.

Introduction to CSEP-Health & Fitness Program's Health-Related Appraisal and Counseling Strategy Certification

**Prerequisites:** Successful completion of second year Kin (including Kin 2230)

**Recommended Text:** *CSEP-PATH* Manual

**Course format:**

Lectures - 9:30-10:30pm Monday and Wednesday Rm. HSB-35

Lab (2 Hours – TH 2108)

- Monday 11:30
- Tuesday or Thursday: 8:30am, 10:30am, or 12:30pm
- Friday 10:30
- Labs begin week of September 12


**\*\* NO labs** for section **002** on October 8 (Thanksgiving)

**\*\* NO labs** for sections **003 to 008** from October 9-12 (Study Break)

**Evaluation:**

- |   |        |       |
|---|--------|-------|
| 1. Mid-term: Thursday, November 8:              | 5:30pm | (20%) |
| 2. Lab exam: Thursday, November 29:             | 5:30pm | (20%) |
| 3. Practical Exam                               | TBA    | (15%) |
| 4. Lab assignments (5)                          |        | (10%) |
| 5. Lab tutorials (5)                            |        | (5%)  |
| 6. Final exam: TBA during December exam period. |        | (30%) |

---

**Lecture outline:**

**Physiology of Fitness Appraisal  
Chapter 1**

**I. A. Measuring Gas Exchange to Evaluate Cardiovascular Function and Cellular Respiration.**

Maximal Oxygen Consumption (VO<sub>2</sub> Max)

**B. Coupling**

Steady State: VO<sub>2</sub> = CO<sub>2</sub>



## Article

4. Chemical Model
5. Anatomical Model

### **C. Special Considerations: Estimation of Basal Metabolic Rate**

#### **II. Ideal Body Composition**

#### **III. Prevalence of Body Weight**

#### **IV. Methods of Assessing Body Composition**

1. BMI
2. Waist to Hip Circumference Ratio (WHR)
3. Body Types
4. Height-Weight Tables
5. Skinfold measurements

#### **b. Sources of Error**

1. Caliper selection:
2. Tester reliability:
3. Constant Compressibility
4. Skin thickness;
5. Constant fat fraction:

#### **c. Prediction Equations**

#### **6. Hydrostatic Weighing**

##### a. Assumptions

##### b. Densitometry and Hydrostatic Weighing Techniques

#### **7. Bioelectric Impedance**

Periodic-acid Schiff stain

5. Assays: Manufacturing Metabolism

Blood/Muscle Lactate:

PFK

HK

SDH + CS

*Above information used for indication of Skeletal Muscle and Function:*

**Chapter 5**  
CSEP-PATH Certification

**I. Determinants of Health**

## Course/University Policies

1. **Lateness/Absences:** Assignments are due at the beginning of class on the assigned due date and will not be accepted late, except under medical or other compassionate circumstances. Electronic submission of assignments will not be accepted (unless otherwise specified) under any circumstances. Submitting a late assignment without appropriate documentation will result in a zero (0) grade. Appropriate documentation for assignments worth less than 10% should be submitted to the Undergraduate office. A missed mid-term examination without appropriate documentation will result in a zero (0) grade. The course policy is not to allow make-ups for scheduled midterms, presentations or final exams, nor to assign a grade of Incomplete without acceptable and verifiable medical (or equivalent compassionate) reasons. Acceptable reasons might include hospital stays, serious illness, family emergencies (like serious accidents or illness, death) or similar circumstances.

2. **Written documentation:** Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, examinations, etc. stating specific reasons and dates. Students must follow up with their professors and their Academic Counselling office in a timely manner. Documentation for any request for accommodation shall be submitted directly, as soon as possible, to the appropriate *Academic Counselling Office* of the student's Faculty/School of registration not to the instructor, with a request for relief specifying the nature of the accommodation being requested. This documentation should be obtained at the time of the initial consultation with the physician or walk-in clinic. These documents will be retained in the student's file, and will be held in

commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com (<http://www.turnitin.com>)

B) Computer marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

5. **Formatting** (*as recommended by the course instructor*): example- APA style is the approved style of writing for all assignments produced for this course. Please refer to Western University Library webpage for information on citation style and format or consult the APA publication manual:



## **STUDENT CODE OF CONDUCT**

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at Western University, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be imposed, and set out the disciplinary procedures that the University will follow. For more information, visit

<http://www.uwo.ca/univsec/board/code.pdf>

## **ENGLISH PROFICIENCY FOR THE ASSIGNMENT OF GRADES**

Visit the website <http://www.uwo.ca/univsec/handbook/exam/english.pdf>

## **SUPPORT SERVICES**

There are various support services around campus and these include, but are not limited to:

1. Student Development Centre -- <http://www.sdc.uwo.ca/ssd/>
2. Student Health -- <http://www.shs.uwo.ca/student/studenthealthservices.html>
3. Registrar's Office -- <http://www.registrar.uwo.ca/>
4. Ombuds Office -- ht