# Western University Faculty of Health Sciences School of Kinesiology

### KIN 2230B - Introductory Exercise Physiology Winter 2020

Instructor: Dr. Glen Belfry

Office: Arts & Humanities Bldg Rm 3G24

Email: gbelfry@uwo.ca
Phone: 519/661-2111 x88364
Office Hours: by appointment

**LABS** 

Instructor: Michael Herbert

Office: Arts & Humanities Bldg Rm 3G04

**Email:** <u>mherber5@uwo.ca</u> **Phone:** 519/661-2111 x88675

Office Hrs: Office hours will be posted on OWL

at the beginning of the semester

TAs: TBD

# **Learning Outcomes/Schedule**:

### **Lecture Outline:**

# Topic

- 1. METABOLISM DURING EXERCISE
  - a.
  - b.
  - What is energy?
    Energy value in food
    Factors affecting energy production
    Anaerobic energy sources 1. A7 C.
  - 1. ATP 2. CP d.

# Learning Objectives To be able to:

- 1. Outline lung structure and its relation to function.
- 2. Outline how lung volume is altered and understand those factors which influence maximal capacity.
- 3. Identify the static lung volumes and understand their relationship to dynamic ventilation.
- 4. Explain how gas pressure acts as the driving force for gas exchange.
- 5. Explain how gas (O<sub>2</sub> and CO<sub>2</sub>) is transported in the blood and the significance of the oxyhemoglobin curve.
- 6. Outline the manner in which control may be exerted over the

Learning Objectives 1. Outline muscle structure and function at the level of both whole muscle and individual sarcomere.

# LAB TOPICS

Lab 1: Enzyme kinetics

Lab 2: Static lung volumes and ventilatory response to incremental exercise.
Lab 3: Oxygen uptake and carbon dioxide response to incremental exercise.
Lab 4: Muscle contractile properties

### **Required Course Material/Text:**

All required readings will be posted on OWL.

### **Course Evaluation:**

Examination	Value?	% Date	
Lecture Mid-term #1	20	Thursday, February 6,	5:30-6:45 P.M.
Lecture Mid-term #2	20	Thursday, March 12,	5:30-6:45 P.M.
Laboratory Exam	15	Friday, March 27	7:00-9:00 P.M.
Laboratory Tutorials	5		
Laboratory Quizzes	5		
Final Comprehensive Exam			

B) Computer marked multiple-choice tests and/or exams may be subject to submission for

The

#### 9. 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 <a href="https://www.uwo.ca/univsec/pdf/board/code.pdf">https://www.uwo.ca/univsec/pdf/board/code.pdf</a>