

School of Kinesiology  
Faculty of Health Sciences  
Western University

**KIN 4430F – Exercise Physiology: Muscle Function and Metabolism  
Fall 2017**

<b>Instructors:</b>	Dr. Charles Rice	<b>Office Phone:</b>	519-661-1628
	Dr. Greg Marsh	<b>Email:</b>	crice@uwo.ca
		<b>Office Phone:</b>	519-661-3408
		<b>Email:</b>	gdmarsh@uwo.ca
<b>Location:</b>	Physics & Astronomy Bldg Rm 106		
<b>Lectures:</b>	M/W/F 10:30AM-11:30AM	<b>Office Hours:</b>	by appointment with appropriate instructor, or the TA

**TAs:** TBD

**NOTE:** All course information including grades, assignment outlines, deadlines, etc. are available via OWL. Check the website regularly for course announcements.

**My Course Description:**

The focus is on the structure and function of skeletal muscle with an emphasis on muscle plasticity and the adaptive response to exercise.

**Anti-requisite(s)!Pre-requisite(s)!Co-requisite(s)**

You are responsible for ensuring that you have successfully completed all course pre-requisites, and that you have not taken an anti-requisite course.

Unless you have either the requisites for this course or written special permission from the course department to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

**Course Format:**

This half course meets **10:30 to 11:30 Mondays, Wednesdays and Fridays in P&AB-106.** This is a team-taught course with each instructor providing approximately 16 hours of lecture on various topics related to skeletal muscle structure and function at both the cellular and whole system level.

**Learning Objectives**

Upon completion of this course students will be able to:

1. Identify and understand concepts of basic skeletal muscle and spinal motor neuron architecture, physiology and metabolism as they relate to voluntary movement in health, exercise training and some clinical situations.

2. Appreciate and critically evaluate the limitations in understanding of the function of various key processes, and their adaptability in response to exercise and disuse.
3. Explore and synthesize this information in a research context.
4. Develop skills in the written expression of ideas through analysis of research papers and exams.
5. Further develop abilities of critical reflection on ideas in scientific understanding relating to the above topics, and integration with other courses of the curriculum

**Course Requirements and Evaluations:**

Term Assignments 30% - Two (15% each) research review papers will be assigned for students to independently read and respond by summarizing the to 0 1 402.91 530.47 n

- c) Houston, M.E. *Biochemistry Primer for Exercise Science*, 3<sup>rd</sup> ed. Human Kinetics Publishers, Champaign, Ill., 2006.
- d) Gardiner, P.F. *Neuromuscular Aspects of Physical Activity* 1<sup>st</sup> or 2<sup>nd</sup> ed. Human Kinetics Publishers, Champaign, Ill., c2001 or c2010

**PLEASE NOTE:**

Lectures introduce a topic and give focus, and required readings expand on some of the topics to appreciate current ( ) TJ0 0 1 446.71 611 0 0 1 272.57 675.82 Tm81(r)7(r)-3(e)]TJ11 0

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## 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 instructor. 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:** 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

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: Publication manual of the American Psychological Association (6th ed.). (2009). Washington, DC: American Psychological Association.

6. According to the **Examination Conflict policy** than two examinations in any 24-hour period may request alternative arrangements through the *\*This policy does NOT apply to mid-term examinations.* There will be no make-up for the mid-term exam. Students who miss this exam with a valid reason will have the final re-weighted accordingly.

7. **Classroom Behaviour**: Class will begin promptly at the time specified at the top of page one of this syllabus. In the event that you must arrive late, please enter the classroom with a minimal disturbance to the class. I reserve the right to lock the classroom door and deny entrance if lateness becomes a common occurrence. Excessive talking during class time is disruptive, disrespectful, and will not be tolerated. Students engaging in such behaviour may be asked to leave the room. Cellular phones, pagers, and text-messaging devices are disruptive when they ring in class. If you must bring these with you, please place them on silent mode or turn them off during class. Failure to do so may result in your being asked to leave.

8. Laptops for the **purpose of typing lecture notes** are permitted in class, but please be respectful to your fellow students and turn the sound off. If I receive complaints from other students regarding noise or other disruptive behaviour (e.g., watching videos on YouTube.com, updating your Facebook status, playing Solitaire), your classroom laptop privileges will be revoked.

9. Audio and/or videotaping of lectures is not permitted unless approval has been sought from the instructor in advance.

### **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. -- <http://www.registrar.uwo.ca/>
4. Ombuds Office -- <http://www.uwo.ca/ombuds/>

Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.