Western University
Faculty of Health Sciences
**School of Kinesiology**

**KIN 4430F Neuromuscular Physiology**
**Fall 2022**

**Instructor:** Dr. Anita Christie

**Learning Outcomes**

Upon completion of this course, students will be able to:

1. Identify and understand concepts of basic skeletal muscle and spinal motor neuron architecture and physiology 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 Format:**
This course will be provided in-person, with synchronous learning sessions, meaning lectures will be held in real-time at the scheduled class time. Lectures will not be recorded. Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

**Required Course Material:**

Any required readings will be posted on OWL.

There is no single text required for the course but selected textbooks are listed for background or review material and with sections directly related to the course lecture topics. For review and fundamental understanding of the main concepts discussed in the course refer to one, or more of the following textbooks available in the library or on-line:

a) McIntosh, B.R., Gardiner, P.F. and McComas, A.J. *Skeletal Muscle: Form and Function, 2nd ed*., Human Kinetics Publishers, Champaign, Ill., c2006. Chapts: 1-4, 9, 10, 12, 13, 15, 16-21, & 22.
b) Gardiner, P.F.*Neuromuscular Aspects of Physical Activity 1st or 2nd ed.* Human Kinetics Publishers, Champaign, Ill., c2001 or c2010
c) Kandel E., Schwartz J.H., Jessell T., Siegelbaum S.A., and Hudspeth, A.J. *Principles of Neural Science*, McGraw-Hill Companies, New York, NY, 2013.

**PLEASE NOTE:**
Lectures introduce a topic and give focus, and required assignments expand on some of the topics to appreciate current research directions. For the course and readings - understand concepts and not technical details

**COURSE OVERVIEW**

| TOPIC | INSTRUCTOR |
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| **Introduction** | |

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**Course/University Policies**

1. The website for Registrarial Services is http://www.registrar.uwo.ca.

In accordance with policy, the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

2. **Academic Offences**

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, in

documentation is to be submitted to academic counsellors within five (5) business days of their return to academic responsibilities. Any such documents

6. **Online Proctoring**

Tests and examinations in this course may be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at: https://remoteproctoring.uwo.ca.

7. **Grades**

Where possible assignment objectives and rubrics will be posted on OWL.
Generally, students can expect some form of feedback on their performance in a course before the drop date.

November 12th, 2022 (for first term half-courses)
November 30th, 2022 (for full-year courses)
March 7th, 2023 (for second term half-or full year courses)

A+ 90-100

A request for relief against a mark or grade must be initiated with the instructor as soon as possible after the mark is issued. In the event that the instructor is not available to the student, or fails to act, or if the matter is not resolved satisfactorily with the instructor, a written request for relief must be submitted to the Chair of the Department within three weeks of the date that the mark was issued. In the case of a final grade in a course, the written request for relief must be submitted to the Chair of the department by January 31st (for first-term half courses) or June 30th (for second-term half courses or full-year courses

8. **Support Services**

**Health and Wellness:**

Information regarding health and wellness-related services available to students may be found at http://www.health.uwo.ca/.

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

There are various support services around campus and these include, but are not limited to:
*Student Development Centre -- http://www.sdc.uwo.ca/ssd/*
*Ombudsperson Office -- http://www.uwo.ca/ombuds/*

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 https://www.uwo.ca/univsec/pdf/board/code.pdf