

KIN 3360B – Exercise Biochemistry
 Winter 2024

Instructor: Dr. Jamie Melling Office: TH 4157 Email: jmelling@uwo.ca Phone: 519/661-2111 x87879 Office Hrs: By appointment	Lectures : M/W/F Instruction Mode : In person
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NOTE: All course information including grades, assignment outlines, deadlines, etc. are available via OWL. Check the website regularly for course announcements.

Calendar Course Description (including prerequisites/anti-requisites):

A study of human exercise biochemistry with attention given to the major biochemical pathways and their control as they relate to acute and chronic responses and adaptations to exercise.

Prerequisite(s): [Physiology 1021](#) or equivalent (e.g., [Kinesiology 1021](#))

from the course instructor. The approval should then be forwarded to your advisor.

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This course will describe the major metabolic pathways associated with the transport and storage of substrate, and production of “energy equivalents” at rest and during different durations and intensities of exercise, as well as in other physiological or clinical conditions. In

3. describe and explain the relationship between metabolism and exercise performance
4. describe individual steps in each of the metabolic pathways studied and identify key steps where pathway regulation occurs and how “regulation” is achieved
5. describe and explain the metabolic responses to exercise of different intensity and duration
6. understand metabolic interactions amongst muscle and other tissue and organ systems
7. use examples from the published literature to help in the understanding of metabolic responses to exercise
8. understand the relationship between metabolism and certain disease states

Required Course Material : PM Tiidus, AR Tupling, ME Houston. Biochemistry Primer for Exercise Science (4th ed). Human Kinetics, 2012.

Additional Course Material/Text :

Lectures will be posted on OWL. Additional supplementary materials will be posted as well.

Course Evaluation :

Midterm I (Cumulative: February 7, 2024) = 25%

Midterm II (Cumulative: March 13, 2024) = 25%

Final Exam (Cumulative: scheduled by the Registrar's office during the April examination period)
= 50%

Exams will be a combination of multiple choice and short answer questions. Midterm examinations will be held during assi17 Tw 0.2 (nc-8.2 -.002d [(i)2.6 c)-2 (e du)10.5 ef stsl

that the work belongs to him/her. Similarly, you are plagiarizing if you paraphrase or summarize another author's ideas without acknowledging that the ideas belong to someone else. All papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted 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 (www.turnitin.com).

Re-submission of Previously Graded Material

Without the explicit written permission of the instructor, you may not submit any academic work for which credit has been obtained previously, or for which credit is being sought, in another course or program of study in the University or elsewhere.

Use of Statistical Pattern Recognition on Multiple Choice Exams

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual

4. Academic Considerations and Absences from Lectures and Assessments

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request (in writing) any necessary academic considerations at least two weeks prior to the holiday to the academic counsellors in their Home Department.

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9. Student Code of Conduct

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