

School of Kinesiology
 Faculty of Health Sciences
 Western University

**KIN 3371A – Special Topic: *Exercise Neuroscience*
 September to December 2018**

Instructor:	Lindsay Nagamatsu, PhD	Office Hours:	By appointment
Location:	Mon & Fri SH 2355 Wed SSC 3018	Phone:	519-661-2111 ext 82659
Lectures:	Mon/Wed/Fri 10:30-11:20am	Email:	lindsay.nagamatsu@uwo.ca
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Teaching Assistants:

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Calendar Description: Selected topics in the areas of sport, exercise, play and dance. Topic and course description available in the Undergraduate Program Office.

Introduction: Welcome! This course is intended to provide you with an overview of the field of exercise neuroscience. We will begin with an overview of the fundamental methodologies used in neuroscience (e.g., EEG, MRI) before examining the literature – from classic studies to the newest cutting edge findings – in this exciting field. In this course, you will have the opportunity to refine your critical thinking and interpretation skills. Throughout the course you are expected to participate in meaningful, engaging discussions.

Learning Objectives:

Upon completion of this course you will be able to:

1. Understand the fundamental methodologies used in neuroscience research
2. Critically evaluate and interpret research in the field of exercise neuroscience
3. Communicate (written & oral) effectively
4. Engage in meaningful discussion with peers

Anti-requisite(s)/Pre-requisite(s)/Co-requisite(s):

Prerequisite: Completion of second year Kinesiology

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 your Dean 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 Material: All course information including grades, assignment outlines, deadlines, etc. are available via OWL. There is no textbook for this course. Required readings will be provided in PDF form on OWL one week in advance. Powerpoint slides from lectures will be posted on OWL. These will be provided so you don't have to worry about writing down every detail from the slides during class; however, the slides are not a substitution for coming to class – there will be details that you may not understand if you are not present in lecture. Therefore, it is recommended that you attend every lecture. If you are absent, you are encouraged to ask for notes from a peer.

Course Format:

Lecture: Mon/Wed/Fri 10:30-11:20am

Communication:

Office hours & appointments: If you have questions about course material or would like to discuss issues related to the course in more detail, you are always welcome to make an individual appointment with the instructor or TA's, or talk to us before/after class (subject to availability).

EMAIL POLICY

Who to contact for your concerns or questions: If you have a question, please first consult this syllabus and the course website; there is a good chance your question can be answered through these resources, especially regarding course logistics or content (e.g., deadlines, assignments, course materials). You are also encouraged to use the forum on OWL to post questions to your peers and check to see if your question has already been answered! If you cannot find an answer to your question on the syllabus or course website, you may contact the instructor or TA's.

Email inquiries to instructor: For all email responses, please permit 24 hours before a response can be expected (i.e., you are unlikely to receive a response the night before a quiz/assignment). I also encourage you to view email as your chance to practice your professionalism. Consider that your communication style is a direct reflection of you as a person!

Course Evaluation Summary:

1. Quizzes	40%
2. Assignment #1	10%
3. Assignment #2	10%
4. Assignment #3	25%
5. Group presentation	15%

Course Evaluation Details:

1. *Quizzes (40%)*: We will have in-class quizzes throughout the semester. There will be a total of 11 quizzes, each worth 4% (your lowest quiz mark will automatically be dropped). The purpose of these quizzes is to ensure that you come to class prepared, ready to contribute to an engaging and meaningful discussion about the readings. They may also contain content from previous classes and group presentations. There will be **NO MAKEUP QUIZZES**. If you receive accommodation, your quiz mark will be re-weighted accordingly.

2. *Assignments (45%)*: There are a total of 3 written assignments to be completed during this course. Detailed assignments will be posted on OWL approximately 1-2 weeks prior to the due date. All assignments must be completed independently. Assignments must be submitted via OWL before the deadline. If you receive accommodation for a missed assignment, a new due date will be decided by the instructor.

3. *Group presentation (15%)*: During the first week of classes, you will sign up in groups of 5 for a presentation date on OWL. On your presentation day, you will share details of a scientific research article that your group independently found that relates to the topic of that week. **You must send your research article to the instructor a minimum of one week prior to your presentation for approval**. Together, your group will prepare a powerpoint (or similar) presentation (approx. 15 minutes). Each member of your group must speak during the presentation. Your group will receive a group mark (10% - rubric will be provided in advance) and an individual contribution mark from your group members (5%, anonymous). The instructor reserves the right to re-arrange group assignments if necessary to accommodate certain individuals. If you receive accommodation for a missed presentation, you will receive a new written and oral presentation assignment from the instructor.

Course/University Policies

1. Accommodation for illness:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_illness.pdf

The University recognizes that a student's ability to meet his/her academic responsibilities may, on occasion, be impaired by medical illness. Illness may be acute (short term), or it may be chronic (long term), or chronic with acute episodes. The University further recognizes that medical situations are deeply personal and respects the need for privacy and confidentiality in these matters. However, in order to ensure fairness and consistency for all students, academic accommodation for work representing 10% or more of the student's overall grade in the course shall be granted only in those cases where there is documentation indicating that the student was seriously affected by illness and could not reasonably be expected to meet his/her academic responsibilities.

A UWO Student Medical Certificate (SMC) is required where a student is seeking academic accommodation. This documentation should be obtained at the time of the initial consultation with the physician or walk-in clinic. An SMC can be downloaded under the Medical Documentation heading of the following website:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

Documentation is required for non-medical absences where the course work missed is more than 10% of the overall grade. Students may contact their Faculty Academic Counselling Office for what documentation is needed.

Whenever possible, students who require academic accommodation should provide notification and documentation in advance of due dates, examinations, etc. Students must follow up with their professors and their Academic Counselling office in a timely manner. Documentation for medical requests for accommodation must be submitted within two (2) business days after the end date on the documentation, to the appropriate Academic Counselling Office of the student's Faculty of registration. For KIN students, you may go to the School of Kinesiology in 3M Centre room 2225 **NOT** to the instructor. It will be the Academic Counselling office that will determine if accommodation is warranted.

2. **Grades:** Where possible assignment objectives and rubrics will be posted on OWL. Should you have a concern regarding the grade you received for an assignment or feel that it is unfair in any way, you must wait 24 hours from the receipt of the assignment to approach the instructor or TA. In doing so, please make an appointment and prepare in writing, with evidence, why you feel your grade is inappropriate. Please be aware that in requesting a grade reassessment, your grade could go up/down/or stay the same. Note that calculations errors (which do occur!) should be brought to my attention immediately. **15% of course grades will be posted by the last day to drop a course (November 9, 2018).**

The university-wide descriptor of the meaning of letter grades, as approved by Senate:

A+	90-100	<i>One could scarcely expect better from a student at this level</i>
A	80-89	<i>Superior work that is clearly above average</i>
B	70-79	<i>Good work, meeting all requirements and eminently satisfactory</i>
C	60-69	<i>Competent work, meeting requirements</i>
D	50-59	<i>Fair work, minimally acceptable.</i>
F	below 50	<i>Fail</i>

3. **Scholastic offences:** They are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/handbook/appeals/scholastic_discipline_undergrad.pdf.

Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar). All required 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 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>)

4. Use of electronic devices:

During Quizzes: Unless you have medical accommodations that require you to do so, or explicit permission from the instructor of the course, you may not use any of the following electronic devices during ANY of the tests, quizzes, midterms, examinations, or other in-class evaluations: cellphones, smart phones, smart watches, smart glasses, audio players or recorders of any sort, video cameras, video games, DVD players, televisions, laptop/notebook/netbook computers, flashlights or laser pointers.

During Lectures: Although you are welcome to use a computer during lecture and tutorial periods, you are expected to use the computer for scholastic purposes only, and refrain from engaging in any activities that may distract other students from learning. From time to time, your professor may ask the class to turn off all computers, to facilitate learning or discussion of the material presented in a particular class. **Unless explicitly noted otherwise, you may not make audio or video recordings of lectures – nor may you edit, re-use, distribute, or re-broadcast any of the material posted to the course website.**

5. **Formatting:** 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. **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.

7. 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. Use of electronic devices during quizzes is not permitted.

8. 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. Registrar's Office -- <http://www.registrar.uwo.ca/>
4. Ombuds Office -- <http://www.uwo.ca/ombuds/>

As part of a successful undergraduate experience at Western, we encourage you to make your health and wellness a priority. Western provides several on-campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your degree. For example, to support physical activity, all students receive membership in Western's Campus Recreation Centre as part of their registration fees. Numerous cultural events are offered throughout the year. Please check out the Faculty of Music web page (<http://www.music.uwo.ca/>), or the McIntosh Gallery (<http://www.mcintoshgallery.ca/>).

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

Students who are in emotional or mental distress should refer to Mental Health@Western (<http://www.uwo.ca/uwo.com/mentalhealth/>) for a complete list of options about how to obtain help. To help you learn more about mental health, Western has developed an interactive mental health learning module, found here:

https://uwo.ca/health/mental_wellbeing/education/module.html.

Tentative Schedule:

Week	Topics	Activities
Week 1: <i>Sept. 7</i>	<ul style="list-style-type: none"> • Introduction • What is “exercise neuroscience”? 	Form groups of 5 and sign up for presentation on <i>OWL</i>
Week 2: <i>Sept. 10, 12, 14</i>	<ul style="list-style-type: none"> • Cognition & the brain • Neuroimaging basics • How to evaluate scientific literature, presentation skills 	Form groups of 5 and sign up for presentation on <i>OWL</i> due Friday
Week 3: <i>Sept. 17, 19, 21</i>	<ul style="list-style-type: none"> • <i>Week 2 cont.</i> 	<ul style="list-style-type: none"> • Quiz #1 Friday • Group #1 Friday
Week 4: <i>Sept. 24, 26, 28</i>	<ul style="list-style-type: none"> • Acute exercise 	<ul style="list-style-type: none"> • Assignment #1 due Wednesday • Quiz #2 Friday • Group #2 Friday
Week 5: <i>Oct. 1, 3, 5</i>	<ul style="list-style-type: none"> • Cross-sectional/longitudinal studies 	<ul style="list-style-type: none"> • Group #3 Wednesday • Quiz #3 Friday • Group #4 Friday
Week 6: READING WEEK	NO CLASS	NO CLASS
Week 7: <i>Oct. 15, 17, 19</i>	<ul style="list-style-type: none"> • Exercise interventions 	<ul style="list-style-type: none"> • Quiz #4 Friday • Group #5 Friday
Week 8: <i>Oct. 22, 24, 26</i>	<ul style="list-style-type: none"> • Exercise interventions 	<ul style="list-style-type: none"> • Group #6 Wednesday • Quiz #5 Friday • Group #7 Friday
Week 9: <i>Oct. 29, 31, Nov. 2</i>	<ul style="list-style-type: none"> • Clinical populations 	<ul style="list-style-type: none"> • Assignment #2 due Wednesday • Quiz #6 Friday • Group #8 Friday
Week 10: <i>Nov. 5, 7, 9</i>	<ul style="list-style-type: none"> • Clinical populations 	<ul style="list-style-type: none"> • Group #9 Wednesday • Quiz #7 Friday • Group #10 Friday
Week 11: <i>Nov. 12, 14, 16</i>	<ul style="list-style-type: none"> • Physical activity in childhood & adolescence 	<ul style="list-style-type: none"> • Group #11 Wednesday • Quiz #8 Friday • Group #12 Friday

Week 12: <i>Nov. 19, 21, 23</i>	<ul style="list-style-type: none">• Mechanisms	<ul style="list-style-type: none">• Quiz #9 Friday• Group #13 Friday
Week 13: <i>Nov. 26, 28, 30</i>	<ul style="list-style-type: none">• Cognitive training	<ul style="list-style-type: none">• Quiz #10 Friday• Group #14 Friday
Week 14: <i>Dec. 3, 5, 7</i>	<ul style="list-style-type: none">• Class choice• Wrap up/professional development	<ul style="list-style-type: none">• Group #15 Monday• Assignment #3 due Wednesday• Quiz #11 Friday• Group #16 Friday