

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

**KIN 2032B - Research Design in Human Movement Science  
Winter 2022**

<p><b>Instructor:</b> Dr. Lindsay Nagamatsu, PhD  <b>Office:</b> Arts &amp; Humanities Bldg Rm 3G20  <b>Email:</b> lindsay.nagamatsu@uwo.ca  <b>Office Hrs:</b> Wednesdays 3-4pm via Zoom.</p> <p><b>TAs:</b> Cristal Fernando – cferna87@uwo.ca  Avery MacKenzie – amacke53@uwo.ca  Nicole Radin – nradin@uwo.ca  Siobhan Smith – ssmi422@uwo.ca  Kyle Weiman – kweiman4@uwo.ca  Michelle Wong – ywong252@uwo.ca</p>	<p><b>Lectures:</b> Mon/Wed 8:30am – 9:20am  <b>Instruction Mode:</b> Virtual/In person (as per Western guidelines)  <b>Location:</b> Virtual/NCB-101</p> <table style="border: none;"> <tr> <td><b>Lab</b></td> <td></td> <td></td> <td></td> </tr> <tr> <td>002</td> <td>Mo</td> <td>4:30pm - 6:00pm</td> <td></td> </tr> <tr> <td>003</td> <td>Mo</td> <td>4:30pm - 6:00pm</td> <td></td> </tr> <tr> <td>004</td> <td>Tu</td> <td>7:00pm - 8:30pm</td> <td></td> </tr> <tr> <td>005</td> <td>Tu</td> <td>7:00pm - 8:30pm</td> <td></td> </tr> <tr> <td>006</td> <td>We</td> <td>4:30pm - 6:00pm</td> <td></td> </tr> <tr> <td>007</td> <td>We</td> <td>4:30pm - 6:00pm</td> <td></td> </tr> <tr> <td>008</td> <td>We</td> <td>7:00pm - 8:30pm</td> <td></td> </tr> <tr> <td>009</td> <td>We</td> <td>7:00pm - 8:30pm</td> <td></td> </tr> <tr> <td>010</td> <td>Th</td> <td>7:00pm - 8:30pm</td> <td></td> </tr> <tr> <td>011</td> <td>Th</td> <td>7:00pm - 8:30pm</td> <td></td> </tr> <tr> <td>012</td> <td>Fr</td> <td>8:30am - 10:00am</td> <td></td> </tr> <tr> <td>013</td> <td>Fr</td> <td>8:30am - 10:00am</td> <td></td> </tr> </table> <p>*Note: Labs will be held synchronously via Zoom and are mandatory. See schedule below for lab weeks.</p>	<b>Lab</b>				002	Mo	4:30pm - 6:00pm		003	Mo	4:30pm - 6:00pm		004	Tu	7:00pm - 8:30pm		005	Tu	7:00pm - 8:30pm		006	We	4:30pm - 6:00pm		007	We	4:30pm - 6:00pm		008	We	7:00pm - 8:30pm		009	We	7:00pm - 8:30pm		010	Th	7:00pm - 8:30pm		011	Th	7:00pm - 8:30pm		012	Fr	8:30am - 10:00am		013	Fr	8:30am - 10:00am	
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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):**

An introduction to the basic aspects of reading, interpreting, evaluating, and presenting research in order to better understand the research process in physical activity. Measurement and data collection techniques from physical and social science areas of kinesiology will be examined using both quantitative and qualitative research designs employed in movement science.

**Antirequisite(s):** [Health Sciences 2801A/B](#).

**Pre-or Corequisite(s):** Any 1.0 or 0.5 statistics course, or Data Science 1000A/B.

**Extra Information:** 2 lecture hours; 2 laboratory hours every three weeks.

*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.*

**NOTE:** If you wish to enroll in this course without the stated pre-requisite(s), you must obtain written approval from the course instructor. The approval should then be forwarded to your academic counsellor.

**Learning Outcomes/Schedule:**

Upon completion of this course students will be able to:

1. Explain the essentials of the research process
2. Evaluate different types of research and related design issues
3. Interpret statistical analyses common to research studies
4. Appraise and reach valid conclusions based on data, methods, and logic
5. Develop and propose a research question and experiment (labs)

**Schedule (Subject to change)**

<b>Week</b>	<b>Topics</b>	<b>Schedule &amp; Deadlines</b>
Week 1: Jan. 10-14	Introduction, course outline & policies Scientific method	
Week 2: Jan. 17-21	Ethics Evaluating scientific literature	
Week 3: Jan. 24-28	Relationships between variables Experimental methods	Lab 1
Week 4: Jan. 31-Feb. 4	Reliability Validity	
Week 5: Feb. 7-11	Measurement scales Planning your study	Lab 2
Week 6: Feb. 14-18	Study designs (non-experimental)	<b>Midterm: Wednesday Feb. 16 via OWL</b>
Week 7: Feb. 21-25	<b>NO CLASS – READING WEEK</b>	
Week 8: Feb. 28- Mar. 4	Surveys Sample sizes and confidence intervals	Lab 3 ( <i>presentation week</i> )
Week 9: Mar. 7-11	Basic experiments Independent groups vs. repeated measures	
Week 10: Mar. 14-18	Conducting experiments Descriptive statistics	Lab 4
Week 11: Mar. 21-25	Graphing your results Factorial studies	
Week 12: Mar. 28-Apr. 1	Quasi-experimental designs Developmental & epidemiology	<b>Final paper due: Friday April 1<sup>st</sup> at 5PM via OWL</b>
Week 13: Apr. 4-8	Inferential statistics Research literacy <i>The end!</i>	
Apr. 10-30	<b>FINAL EXAM PERIOD</b>	

## **Course Format:**

**Lecture:** For the month of January, lectures will be provided asynchronously on OWL with 2 lectures per week available Monday mornings by 9am. The rest of the semester is TBD depending on current Covid-19 pandemic restrictions. If deemed safe to do so, we will move back to in-person lectures which will be on Mondays and Wednesdays at our usually scheduled class time (8:30-9:20am).

**Labs:** Zoom, synchronous labs according to registered section; 4 labs total throughout the semester (see schedule above). Zoom links will be provided on OWL.

Sec 002	Mon	4:30 pm – 6:00 pm
Sec 003	Mon	4:30 pm – 6:00 pm
Sec 004	Tue	7:00 pm – 8:30 pm
Sec 005	Tue	7:00 pm – 8:30 pm
Sec 006	Wed	4:30 pm – 6:00 pm
Sec 007	Wed	4:30 pm – 6:00 pm
Sec 008	Wed	7:00 pm – 8:30 pm
Sec 009	Wed	7:00 pm – 8:30 pm
Sec 010	Thu	7:00 pm – 8:30 pm
Sec 011	Thu	7:00 pm – 8:30 pm
Sec 012	Fri	8:30 am – 10:00 am
Sec 013	Fri	8:30 am – 10:00 am

## **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 TAs, or talk to us before/after class (subject to availability – and when/if classes are moved to in-person). Office hours will be held by the instructor via Zoom on Wednesdays from 3:00-4:00pm.

### *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). If you cannot find an answer to your question on the syllabus or course website, you may contact the instructor or TAs.

*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 test/assignment). Emails will rarely be answered over the weekend.

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

All course materials (lab guide, readings) will be provided via OWL.

## **Course Evaluation:**

Assignments are due as stated in the course syllabus and will not be accepted late, except under medical or other compassionate circumstances. Submitting a late assignment without appropriate documentation will result in a zero (0) grade. A missed mid-term examination, without appropriate documentation will result in a zero (0) grade. Acceptable reasons might include hospital stays, serious illness, family emergencies (like serious accidents, illness or death) or similar circumstances.

1. Group presentation (Lab)	10%
2. Final lab report (Lab)	30%
3. Midterm exam	25%
4. Final exam	35%

1. *Labs (40%)*: There are a total of 4 labs that you must attend during this course. Please ensure that you are enrolled in a lab time that you are able to commit to; attending a different lab session will NOT be permitted under any circumstances. The final lab report is worth 30% and your group presentation (during Lab 3) is worth 10%.

Labs are run virtually due to Covid-19. Lab attendance is mandatory and you must attend during your own registered section – this is essential, as there is group work in pre-assigned groups. **SEE SCHEDULE ABOVE FOR LAB DATES – THERE ARE A TOTAL OF 4 FOR THE SEMESTER.**

If you cannot attend your lab due to an accommodated reason (or SRA), please inform your TA and instructor as soon as possible. You must follow up with your group members to make up for missed work. If you miss Lab 3 (with accommodation), your final report will be worth 40%.

If you miss a lab without proper accommodation, you will be deducted 10% from your final report mark. Attendance will be taken for each lab.

2. *Midterm Exam (25%)*: The midterm exam will occur on **February 16<sup>th</sup> on OWL**. It will consist of multiple choice questions.

3. *Final Exam (35%)*: The final exam will be cumulative, although the focus will be on material covered during the second half of the course. The format will be multiple choice. The time and date of the final exam is scheduled by the University. Thus, do not make travel plans until the date of the exam is announced. For those who miss the final exam (with accommodation), a make-up final exam will likely be given.

### Course/University Policies

#### 1. Statement on Use of Personal Response Systems (“Clickers”)

If Personal Response Systems (“Clickers”) are used in the course, a reference to the Guidelines for their use (Guidelines are shown below). Instructors are to communicate clearly to students information on how clickers are used including: how the student’s privacy will be protected, how clickers may be used by the instructor for data gathering and for evaluating the students, and why they cannot be used by anyone but the student (since the students involved in misuse of a clicker may be charged with a scholastic offence).

2. **Academic 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: [https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

A) 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>

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.

### 3. Electronic Device Usage:

**During Exams** - 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 and Tutorials:** 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. Please be respectful to your fellow students and turn the sound off. If the professor receives complaints from other students regarding noise or other disruptive behavior (e.g. watching videos on YouTube.com, updating your Facebook status, playing Solitaire), your classroom privileges will be revoked. 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.**

### 4. 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.

### 5. 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 & Wellness* -- <http://www.health.uwo.ca/>
3. *Registrar's Office* -- <http://www.registrar.uwo.ca/>
4. *Ombudsperson Office* -- <http://www.uwo.ca/ombuds/>

### 6. Documentation for Academic Accommodation (Illness, Medical/Non-Medical Absences):

[http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\\_12](http://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_12)

Students who experience an extenuating circumstance (illness, injury, or other extenuating circumstance) sufficiently significant to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

- (i) Submitting a Self-Reported Absence (see below for conditions)
- (ii) For medical absences exceeding 48 hours, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner to their Academic Counselling in their Faculty of registration in order to be eligible for Academic Consideration; or
- (iii) For non-medical absences exceeding 48 hours, submitting appropriate documentation (e.g., obituary, police report, accident report, court order, etc.) to Academic Counselling in their Faculty of registration in order to be eligible for academic consideration. Students are encouraged to contact their Academic Counselling unit to clarify what documentation is appropriate.

Students seeking academic consideration **must communicate with their instructors no later than 24 hours** after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence.

**The following conditions are in place for self-reporting of medical or extenuating circumstances:**

- a. a maximum of two self-reported absences between September and April and one self-reported absence between May and August;
  - b. any absences in excess of the number designated in clause a above will require students to present a Student Medical Certificate (SMC) or appropriate documentation supporting extenuating circumstances to the Academic Counselling unit in their Faculty of registration no later than two business days after the date specified for resuming responsibilities.
  - c. The duration of the excused absence will be for a maximum of 48 hours from the time the Self-Reported Absence form is completed through the online portal, or from 8:30 am the following morning if the form is submitted after 4:30 pm;
  - d. The duration of the excused absence will terminate prior to the end of the 48 hour period should the student undertake significant academic responsibilities (write a test, submit a paper) during that time;
  - e. The duration of an excused absence will terminate at 8:30 am on the day following the last day of classes each semester regardless of how many days of absence have elapsed;
  - f. Self-reported absences will not be allowed for scheduled final examinations; for midterm examinations scheduled during the December examination period; or for final lab examinations scheduled during the final week of term;
  - g. Self-reporting may not be used for assessments (e.g. midterm exams, tests, reports, presentations, or essays) worth more than 30% of any given course;
- For medical and non-medical absences that are not eligible for self-reporting Kinesiology students must submit an Academic Consideration Request form found online [https://www.uwo.ca/fhs/kin/undergrad/files/accommodation\\_request.pdf](https://www.uwo.ca/fhs/kin/undergrad/files/accommodation_request.pdf) in addition to an SMC or appropriate documentation in the event of a non-medical absence. These documents will be retained in the student's file, and will be held in confidence in accordance with the University's Official Student Record Information Privacy Policy.

7. **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.

At least three days prior to the deadline for withdrawal from a 1000- or 2000-level course without academic penalty, students will receive assessment of work accounting for at least 15% of the final grade.

*March 14th, 2022 (for second term half-or full year courses)*

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</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>

**Rounding of Grades** (for example, bumping a 79 to 80%):

This is a practice some students request. **This practice will not occur here.** The edges of this course are clear and sharp. The mark attained is the mark you achieved and the mark assigned; there is no rounding to the next grade level, or 'giving away' of marks. Please don't ask me to do this for you; the response will be "please review the course outline where this is presented".

8. **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. Please keep all electronic devices on silent and avoid distracting classmates.

### 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>

### 10. **Recordings**

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.

For Labs only: All of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals participating in the course for their private or group study purposes. Please contact the instructor if you have any concerns related to session recordings.

### 11. **Course delivery with respect to the COVID-19 pandemic**

Although the intent is for this course to be delivered in-person, the changing COVID-19 landscape may necessitate some or all of the course to be delivered online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any assessments affected will be conducted online as determined by the course instructor.

**When deemed necessary**, tests and examinations in this course will 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>.