The University of British Columbia  
SCHOOL OF KINESIOLOGY  

KIN 570 – Research Methods in Kinesiology  
Term 2, 2021-2022

COURSE OVERVIEW

Research methods applied to the study of sport and physical activity, the nature of scientific inquiry, the design of experiments, the survey as a research medium, the historical and philosophical methods of inquiry, the writing of the research report.

INSTRUCTOR:

Prof. Karim Khan, MD, PhD, MBA (he/him/his)  
E-mail: karim.khan@ubc.ca  
Office Hours: By appointment, after class

COURSE FORMAT:

• Some of the weekly lectures will be recorded and posted to Canvas prior to our in-person meetings each week. You will be alerted to those and you should view those lectures before coming to class.
• Our weekly in-person meeting time will be Mondays, 1pm – 4pm PST in War Memorial Room 206/208. This is the time that you should plan to be available each week.
• I will be available for informal and brief consultation with students immediately after our class discussion (until 430 pm). You can sign up for individual 15-minute appointments on our Canvas page. (These will be by zoom to save travel time). See also Office Hours below.

ACKNOWLEDGEMENT OF MUSQUEAM FIRST NATION PEOPLE AND LAND

UBC’s Point Grey Campus is located on the traditional, ancestral, occupied, and unceded territory of the xwməθkwəy̓əm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on in their culture, history, and traditions from one generation to the next on this site.

COURSE TOOLS AND RESOURCES


ISBN-10: 019902068X  

Canvas: Information about this course, lectures, and important reminders will be made available on the course website. This information can be accessed on Canvas, so please check the site regularly. You are responsible for obtaining the information posted to Canvas.

ATTENDANCE

You should plan to attend our session each week. You are responsible for all material covered in our session and any information given whether you are present or not. You are also responsible for all of the content covered in our recorded lecture videos.

If you miss a quiz or exam without advanced notice and proper declaration, you cannot make up that assessment and will be given a mark of zero. If you have a reasonable academic concession request (medical issue, compassionate grounds, religious observation, etc.), you should self-declare that, using the procedures outlined in the COURSE EVALUATION section of this course outline.

IN CASE OF EMERGENCY

In the event that we experience circumstances which could prevent us from joining in person (COVID-related restrictions,
inclement weather, travel restrictions, disruptions to public transit, etc.), we will move our weekly class session to Zoom. A link to that meeting and an Announcement that we are pivoting will be provided in advance.

EMAIL

Attempting to teach or explain material over e-mail can be difficult and ineffective. **If you have questions about course material or concepts those questions should be addressed face-to-face during or after class or via the scheduled zoom appointments mentioned above.** E-mail should be used for a limited number of reasons, including: scheduling a time to meet during office hours, in cases of emergency that may cause you to miss a quiz, or situations otherwise detailed in class. It may take up to 24 hours to respond to your email during the week. Weekend emails will be answered on Mondays. Please include “KIN 570” in the subject line of emails. Karim.Khan@ubc.ca

OFFICE HOURS

If you would like to discuss course material more in-depth, please schedule a 15-min or 30-min appointment. These appointments give you the opportunity to discuss your own research or the concepts covered in this course. If you have other questions, please contact me to establish a time to discuss.

COURSE NOTES AND RECORDED LECTURES

Class notes and recorded lectures will be made available through the course website on Canvas. Please keep in mind that these notes and lectures do not contain information related to discussions or detailed examples, which will be covered in our class sessions. **You should have already viewed all previously recorded lectures and completed all assigned readings prior to attending our weekly class session.**

COPYRIGHT

I hold the copyright to the lectures and all course materials presented in class, unless otherwise noted. The copyright also extends to student notes and summaries that substantially reflect these lectures or materials. Materials are made available to students for personal use only. Students may not distribute or reproduce the materials for commercial purposes without my express written consent. No classroom content should be posted to CourseHero or other similar websites.

UNIVERSITY POLICIES

It is your responsibility to become familiar with the University of British Columbia’s Academic Honesty and Plagiarism Policies, as well as the Student Declaration and the consequences of violating these policies.

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious and cultural observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold high academic standards in all of their actions. Details of the policies and how to access support are available here (https://senate.ubc.ca/policiesresources-support-student-success).

COURSE EVALUATION

The breakdown of marking for the course is as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Pre-Assessments</td>
<td>10%</td>
</tr>
<tr>
<td>Participation</td>
<td>20%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>40%</td>
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<tr>
<td>Ethics cert</td>
<td>5%</td>
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<tr>
<td><strong>Group presentation</strong></td>
<td><strong>15%</strong></td>
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<tr>
<td><strong>Research proposal (individual)</strong></td>
<td><strong>10%</strong></td>
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If you anticipate that you won’t be able to complete an assessment, please contact me before you miss the assessment. Assessments will not be rescheduled for any reason other than self-declared medical circumstances, compassionate grounds, religious observation or conflicting responsibilities. Please review those policies here: https://kin.educ.ubc.ca/undergraduate/bkin/academic-concession/.

PRE-ASSESSMENTS
Prior to our class sessions on Mondays, you will be asked to complete a pre-assessment of your knowledge. This will be a series of several multiple-choice questions and will be conducted as a Canvas quiz. Collectively, these will make up 10% of your overall mark.

QUIZZES
There will be four quizzes in the course. Quiz style will be multiple choice, unless I note otherwise. Quizzes will be open during a relevant window (outside of class time) and then there will be a time limit once you start the quiz. Quizzes will be conducted through Canvas. Each quiz is worth ten percent of your overall mark for the course. Quizzes will be based on our lecture content and the information in your text. Missed quizzes are subject to the policies outlined in the section titled “Course Evaluation.” In some circumstances, the value of a missed quiz may be re-weighted onto the other quizzes, but only in the case of self-declared conflicts. The content that is examined in the quizzes is not cumulative.

Completing the on-line ethics certificate. Certificate needed for approval (5%)
All graduate researchers are required to complete an ethics’ tutorial before submitting a request for an ethical review. The aim of this tutorial is to ground junior researchers in appreciation of ethical principles and ethical conduct from the start of their careers. This will help you apply to the BREB (Behavioural Research Ethics Board) or CREB (clinical) REBs. If you have already completed the TCPS (Tri-Council Policy Statement), then I will accept your certificate of completion as evidence this has been done. If you want a refresher or have not completed the ethics tutorial, then the new tutorial (TCPS2 2014) can be accessed through the Office of Research Services’ website: https://ethics.research.ubc.ca/education-training/online-tutorials-training

You will need to register with an email and password. It can take anywhere from 1 - 3 hours to complete, depending on your interest in the examples and knowledge. It is an interesting, informative and fun tutorial. Please present the certificate for approval by January 31st (please give a copy to your research supervisor).

PARTICIPATION
At the end of this term, you will be asked to assign yourself a mark for participation in the course. Asking you to assess yourself is a step toward viewing the learning experience as a more collaborative endeavour, in which your own self-evaluation is valued as part of your course mark. You will assign yourself a grade that encompasses the extent to which you participated in class discussions, peer feedback, and online discussion threads.

Students Learning Outside of Canada
During the pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies.

If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0 for a note on the values of the University conveyed in the Senate Statement on Academic Freedom). I recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: https://academic.ubc.ca/supportresources/freedom-expression.

Topics to consider for the group presentation: Effective communication, Experimental designs, Validity and reliability, assessing relationships, causal inference, comparing means, questionnaire design, hypothesis/significance testing, power &effect size, sampling, presenting stats & results, graphs and tables the concept of a key figure, strong inference, authorship, scientific plagiarism, critiquing research, impact factors/altmetrics, research with impact.
# The University of British Columbia
## SCHOOL OF KINESIOLOGY

## COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Class Content</th>
<th>Assessment</th>
<th>Textbook Chapter</th>
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<tbody>
<tr>
<td>Jan. 10</td>
<td>Introduction to the course, principles of how the course will run, <em>Why do Research?</em> Reading includes Introduction to Research in Kinesiology (text); discussion of topics for group presentations</td>
<td></td>
<td>1</td>
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<tr>
<td>Jan. 17</td>
<td>Identifying a Research Question and Study Purpose(s)</td>
<td>Quiz 1</td>
<td>2</td>
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<tr>
<td>Jan. 24</td>
<td>Ethics (and TCPS 2 module); Responsible conduct of Research</td>
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<td>3</td>
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<tr>
<td>Jan. 31</td>
<td>Quantitative Study Design and Reporting Guidelines for various study designs</td>
<td>Quiz 2</td>
<td>4</td>
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<td>Feb. 7</td>
<td>Data Analysis in Quantitative Studies</td>
<td></td>
<td>5</td>
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<tr>
<td>Feb. 14</td>
<td>What’s a trustworthy Quantitative Research Study? What is your favourite study and why?</td>
<td>Quiz 3</td>
<td>6</td>
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<tr>
<td>Feb. 21</td>
<td>Family Day/Reading Week – No Classes</td>
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<td>Feb. 28</td>
<td>Scientific writing: (support material provided)</td>
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<td></td>
<td>Preparation for your Research Proposal</td>
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<tr>
<td>Mar. 7</td>
<td>Qualitative Study Designs, Data Analysis, Knowing What to Trust (+ Presentations by groups x 2)</td>
<td>Quiz 4</td>
<td>7, 8</td>
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<tr>
<td>Mar. 14</td>
<td>Presentations by groups x 2 (10-minute presentations, 5 minutes of questions, 10 mins of feedback) / Discussion of “Landmark papers in Kinesiology and why?” (Methods issues)</td>
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<tr>
<td>Mar. 21</td>
<td>Patient engagements in research, Mixed Methods Research/Participatory Action Research/Knowledge Translation including role of social media (+ Guest speaker)</td>
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<td>9,10,11,12</td>
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<td>Mar. 28</td>
<td>Selected topics (that have come up in the course) including: open science, statistical issues, journal peer-review process and impact factors. Presentation by groups x 2 (+ Guest speaker)</td>
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<tr>
<td>Apr. 4</td>
<td>Presentation by Groups x 3; Discussion of landmark papers in kinesiology and why issues relating to research proposals (+ Guest speaker)</td>
<td>Research Assignment</td>
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