

We acknowledge with respect the Lkwungen-speaking peoples on whose traditional territory the university stands and the Songhees, Esquimalt and WSÁNEC peoples whose historical relationships with the land continue to this day.



University
of Victoria

Faculty of Education
School of Exercise Science, Physical and Health Education

September 2021
Introduction to Research
EPHE 357 /A01/ 11585

Instructor: Dr. Olave Krigolson

Class Location: MCK 155

Class Times: Tuesdays and Wednesdays 1:30-2:50pm

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Office Hours: By Appointment

1. Course Description

An introduction of quantitative and qualitative research approaches to disciplinary areas in the School of Exercise Science, Physical and Health Education. Topics include methods and design, measurement issues, analysis and interpretation of literature and analytical procedures used in research.

2. Learning Outcomes

- Identify the underlying assumptions and general characteristics of research processes.
- Describe the various types of research used to understand physical activity in various contexts.
- Describe various research methodologies and determine the appropriate methods for specific problems.
- Read research papers and write a critical analysis of research.
- Assess ethical issues associated with doing human research and will be able to make informed decisions regarding the appropriate treatment of participants involved in their research.
- Communicate about research in both an oral and written form.
- Develop a research proposal which includes a research hypothesis, a review of the literature and appropriate methodology and data analysis.
- Conduct basic quantitative research analysis (e.g. Descriptive statistics, t-test, ANOVA, correlation, regression) using statistical software (SPSS)

3. Recommended Text

Kowalski, K. C., McHugh, T. L. F., Sabiston, C. M., & Ferguson, L. J. (2018). *Research methods in kinesiology*. Oxford University Press. ISBN: 019902068X

4. Required Readings

Other course material will be posted on my teaching website, www.krigolsonteaching.com.

5. Course Outline

Wednesday, September 8 th	Introduction
Tuesday, September 14 th	Week 1: Introduction to Research Research Questions Hypotheses Qualitative, Quantitative, and Mixed Designs
Wednesday, September 15 th	Week 1: Practical Assignment Designing a Research Study
Tuesday, September 21 st	Week 2: Literature Review Finding Primary Research Articles Assessing Journal Quality Assessing Article Quality
Wednesday, September 22 nd	Week 2: Practical Assignment Interpreting Studies
Tuesday, September 28 th	Week 3: Research Ethics Why Do We Have Research Ethics? What Guidelines are Followed? Tri Council Policy on Research
Wednesday, September 29 th	Week 3: Practical Assignment TCPS Core 2 Course (NB, we will not meet on this day as this is an out of class assignment)
Tuesday, October 5 th	Week 4: The Scientific Process The Scientific Method
Wednesday, October 6 th	Week 4: Practical Assignment Updating Your Study Design
Tuesday, October 12 th	Week 5: Qualitative Research What is Qualitative Research? What Types of Study Designs are Used?
Wednesday, October 13 th	Week 5: Practical Assignment Dissecting Interviews
Tuesday, October 19 th	Week 6: Quantitative Research What are Independent and Dependent Variables? Between versus Within Designs Assessing Results / Inferential Statistics
Wednesday, October 20 th	Week 6: Practical Assignment Design a Study
Tuesday, October 26 th	Week 7: Descriptive Statistics

	Measures of Central Tendency Measures of Variability Visualizing Data
Wednesday, October 27 th	Week 7: Practical Assignment Descriptive Statistics
Tuesday, November 2 nd	Week 8: Correlation and Regression What is a Linear Model? What is Correlation and Regression?
Wednesday, November 3 rd	Week 8: Practical Assignment Correlation
Tuesday, November 9 th	Week 9: Research Project Progress / Review NB, there is no quiz or practical assignment this week.
Wednesday, November 10 th	READING BREAK
Tuesday, November 16 th	Week 10: T-Tests Z Scores and T-Tests
Wednesday, November 17 th	Week 10: Practical Assignment T-Tests
Tuesday, November 23 rd	Week 11: ANOVA and complex designs ANOVA Assumptions What is an ANOVA Complex Models
Wednesday, November 24 th	Week 11: Practical Assignment ANOVA
Tuesday, November 30 th	Week 12: Knowledge Translation What is Knowledge Translation? Methods of Knowledge Translation
Wednesday, December 1 st	Week 12: Practical Assignment Sharing Science

6. Assessment

Assessment and Due Date	Details	Grade Allotment
<p>Quizzes</p> <p>Weekly on Tuesdays</p>	<p>Quizzes will be completed at the start of each class in class. Note, there is no quiz for Week 9 (Nov 9th). Quizzes will be on material posted on the course website for the assigned date. There are 11 quizzes in total, I will count your best 10 (2% each). If you complete all 11 quizzes you can use this as bonus points. There are no redo's for missed quizzes.</p>	<p>20%</p>
<p>TCPS Core 2</p> <p>Before the end of the day, Monday, October 4th.</p>	<p>You will complete the TCPS Core 2 program.</p> <p>The tutorial can be found here: https://tcps2core.ca/welcome</p> <p>You will need to provide proof of completion (screenshot, etc). This is an all or none grade, 10 points for completing, 0 for failure to complete. Note, the associated practical class (Wednesday, September 29th will be cancelled to provide time to do this). This online course is an introduction to the 2nd edition of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2). It consists of eight modules focusing on the guidance in TCPS 2 that is applicable to all research regardless of discipline or methodology.</p> <p>You will need to create an account to complete the course and to receive institutional recognition of course completion you must ensure that you use your institution-specific email in your account set-up. You must also identify that your institution is the University of Victoria. When you have completed the course, save your certificate, and email your certificate to me.</p>	<p>10%</p>

<p>Practical Assignments Weekly on Wednesdays</p>	<p>Each Wednesday's practical class will include an assignment that students will either complete in class or within a specified time frame after the class is over (typically one week). Class assignments will be explained in class each week. Note there are only 10 practical assignments as there is not one on Week 3 or Week 9.</p>	<p>20%</p>
<p>Research Project December 15th, 2021</p>	<p>Students will be required to write up a research report for a research project that they complete in a group (no more than three students) or on their own. Across the course, students will be responsible for designing their projects, for reviewing the relevant literature, for conducting the experiment, and for writing up a final research paper in journal format. Each research project idea will need to be unique from all other people / groups. If an idea is too similar, I will not allow the project to proceed. More information about the research project will be provided in a separate document.</p>	<p>25% or 50%</p>
<p>Final Exam University Exam Period</p>	<p>Students choosing to work in groups for their research project will have to write a final exam based on the course material. The final exam will consist of multiple choice and short answer questions.</p>	<p>25% or 0 %</p>

7. Diversity policy

Our Faculty of Education embraces an inclusive learning community that respects and recognizes that we are enriched and strengthened by diversity including, but not limited to, ethnicity and national origins, language, gender and gender identity, sexuality, ability, age, socioeconomic status, and spirituality. We are committed to increasing the participation of people who have been historically and systemically excluded from higher education and welcome all who share this aspiration. We are committed to answering the Calls to Action from the Truth and Reconciliation Commission of Canada. We are a campus that educates for and encourages respect, acceptance of others, inclusion and diversity, with one principal limit: acts that incite hatred, espouse or encourage bigotry, either implied or explicit, will not be tolerated. Please also consult the UVic equity policy: <https://www.uvic.ca/equity/index.php>

8. For all students

Please do not hesitate to consult with me, either in my office hours or by appointment, if you have concerns about this course or your undergraduate experience, in general. I will be happy to help you in a confidential manner to find the support necessary to resolve your concerns.

9. Course Experience Survey (CES)

I value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete a confidential survey regarding your learning experience (CES). The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey you will receive an email inviting you to do so. Please ensure that your current email address is listed in MyPage. If you do not receive an email invitation, you can go directly to <http://www.uvic.ca/learningandteaching/students/resources/ces/login.php>. You will need to use your UVic netlink ID to access the survey, which can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.

10. Grading Scale

As approved by the University of Victoria Senate effective May 1, 2014, a percentage grade will be assigned for the overall course grade.

The university policy regarding grading can be reviewed at:

(Undergrad) <https://web.uvic.ca/calendar/undergrad/info/regulations/grading.html#>

(Graduate) <https://web.uvic.ca/calendar/grad/academic-regulations/grading.html#>

and includes the grading scale:

A+ 90-100	B+ 77 – 79	C+ 65 – 69	F 0 - 49
A 85 - 89	B 73 - 76	C 60 - 64	
A- 80 - 84	B- 70 - 72	D 50 – 59	

11. Support for Students

Support for Students

- **Centre for Accessible Learning (CAL)**
CAL offers information and support for UVic students with a permanent disability to promote educational equity and accessibility. Students who need classroom accommodations such as alternate text formats, or other on-campus support should contact CAL as soon as confirmation of enrollment is received. If you wish to explore options for accommodation please consult with CAL
- **Centre for Academic Communication (CAC).**
The CAC provides face-to-face and online assistance in reading, writing, speaking, and academic expectations. To find out more and/or to book an appointment, please follow this link
- **UVic Counselling Services.**

Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students. To find out more and/or to book an appointment, please follow [this link](#)

- **Indigenous Student Community**

UVic and the Indigenous Faculty, Staff and students continue to work towards creating programming that is inclusive and representative of Indigenous peoples heritage and concerns. If you wish to connect with this community, please [consult here](#).

- **Support for International Students**

Please follow [this link](#) for programs to support international students.

- **Sexualized Violence Prevention and Response at UVIC**

UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Whether or not you have been directly impacted, if you want to take part in the important prevention work taking place on campus, you can also reach out:

Where: Sexualized violence resource office in EQHR, Sedgewick C119 [Website](#) Phone: 250.721.8021 Email: svpcoordinator@uvic.ca

- **Health Services** - <http://www.uvic.ca/services/health/>