THE UNIVERSITY OF BRITISH COLUMBIA

I respectfully acknowledge the Syilx Okanagan Nation and their peoples, in whose traditional, ancestral, unceded territory UBC Okanagan is situated.

HES_O 506 (3 Credits) Research Methods in Health and Exercise Sciences
Course Outline, January 8 to April 24 2026

Faculty: Faculty of Health and Social Development
Department: School of Health and Exercise Sciences
Instructor: Dr. Brian H Dalton
Email: brian.dalton@ubc.ca
Office: ART 157
Office Hours: By appointment

Duration: Winter Term 2 2025-26
Delivery: In-Person
Location: FIP 250
Course Days: Thursday
Class Hours: 11:00 am – 2:00 pm

Academic Calendar Entry

Principles of research methods including philosophy of science, research designs, ethical considerations, critical analysis, qualitative and quantitative approaches, proposal development. [3-0-0]

Course Format

One synchronous in-person seminar (2.5 hours). Classes will be comprised of a combination of discussions, summaries by the instructor and students, student-led discussions, and presentations.

Course Overview, Content, and Objectives

HES 506 will present students with the opportunity to learn methodological approaches to the study of health and exercise sciences. Topics will address student's own particular interests and also expand their understanding of other available techniques and approaches. Students will become versed in the philosophy of science, key research designs such as experiments and surveys, sampling, data analysis, development of a research proposal and consideration of the ethical constraints of different methodological approaches. Both qualitative and quantitative approaches will be covered.

We will share many of my own life experiences and we will know each other well by the end of the semester. Your diverse perspectives and life experiences are highly valued (but not required) and will help to make discussions more energetic and interesting. We encourage you to respectfully share your opinions and disagreements; your thoughts can lead to interesting conversations that enhance course material. I hope this course is an enjoyable, valuable and memorable learning experience!

Learning Outcomes

Upon successful completion of this course, students should be able to:

1. Explain the key features of the philosophical approach to science
2. Describe key methodological approaches and know when to apply them
3. Critique features of research designs commonly used in the health and exercise sciences
4. Identify and analyze ethical constraints within common methodological approaches used in the health and exercise sciences
5. Understand how to develop/present an academic CV

Methods of Assessment

Description of Assessment	Learning Outcomes	% of Grade	Due Date
Class participation • Attendance at 10/12 seminars • Contributions to discussion	1, 2, 3, 4, 5	5	Ongoing
Certificates of completion • Complete the following online courses & upload your certificates to Canvas: 1) Course 1: TCPS 2 Course on Research Ethics • 2) Course 2: Gender-based Analysis Plus (GBA Plus) • Complete Narrative CV and upload to Canvas	4, 5	10	Courses: January 22 CV: April 24
Leading a class discussion (weeks 6 - 12) • Clarity & organization of presentation (15%) • Understanding & overall critique of article (35%) • Creating and maintaining group discussion (30%) • Responding to questions competently (20%)	1, 3, 4	25	Weeks 6 - 12
Research Proposal - Oral Presentation • Organization (10%) • Clarity of study significance (10%) • Clarity of research design & coherence (25%) • Awareness of ethical considerations (10%) • Critical reflection on study limitations: (20%) • Plan for Knowledge Translation (15%) • Answering Questions (10%)	1, 2, 3, 4	30	Weeks 13-14
Research Proposal – Written Document • Brief integrated summary of the literature (20%) • Clarity of research design & coherence (30%)	1, 2, 3, 4	30	April 17

• Considerations re Reliability/Validity &/or Trustworthiness (20%) • Critical reflection on limitations of study (10%) • Integration of presentation feedback (10%) • Overall organization (10%)			

Learning Materials

All required readings for this course will be available via Canvas and the UBC Library. Citations for the weekly readings will be outlined in the 'tentative course schedule'. The primary text resources for this course are outlined below and can be accessible through the UBC Library:

Walshe, C., & Brearley, S. (Eds.). (2020). *Handbook of Theory and Methods in Applied Health Research: Questions, Methods and Choices*. Edward Elgar Publishing.
Link: Handbook of Theory and Methods in Applied Health Research – Questions, Methods and Choices | Elgar Online: The online content platform for Edward Elgar Publishing

Thomas, J. R., Nelson, J. K., & Silverman, S. J. (2015). *Research methods in physical activity. Seventh edition*. Human Kinetics, Champaign, Illinois.

Additional readings may be assigned during the semester.

Other Course Policies

Due Dates & Late Policy

When possible, we aim to take a flexible and individualized approach to due dates. I am willing to work with you on a case-by-case basis. Below is our general guidance to ensure fairness for all students in the course.

The due dates outlined in the syllabus are a suggested schedule for submitting assignments to allow you to progress through the course. Please review the dates and let me know by January 28 if you would like to request an individualized change to the proposed deadlines. For presentations, I suggest in most cases keeping the proposed deadline as I devote class time to these presentations.

You may contact me via email up to 2 working days prior to the assignment deadline to request an extension with no penalty. If you do not contact me and do not have an academic concession (e.g., illness, unforeseen event), I will give a grace period of 24 hours. After which, I will deduct 25% per day that the assignment is late.

Missed Participation Policy

Participation in at least 10 out of 12 seminars is mandatory and counts towards your participation grade.

UBC Values

UBC creates an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research to serve the people of British

Columbia, Canada, and the world. UBC's core values are excellence, integrity, respect, academic freedom, and accountability.

Policies and Regulations

Visit UBC Okanagan's Academic Calendar for a list of campus-wide regulations and policies, as well as term dates and deadlines.

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating usually result in a failing grade or mark of zero on the assignment or in the course. Careful records are kept to monitor and prevent recidivism.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar.

Use of Generative AI

While artificial intelligence technologies should not be used to complete academic work, students are permitted to use AI tools for formative work such as gathering information or brainstorming but may not use it on any assessed work or final submission. In trying out tools, be sure not to share in prompts any personal or sensitive information, or any information you wish to be kept private, as this content may become part of the dataset the models train on.

If you make use of generative artificial intelligence tools to complete any project deliverables or other course-related work, the generated material must be clearly and correctly indicated, and cited/referenced using APA referencing style for generative AI. Please provide an explicit description outlining why the AI writing tool was used/for what purpose. Failure to clearly indicate and reference AI-generated material may be reported as academic misconduct.

Academic Misconduct

The academic enterprise is founded on honesty, civility, and integrity. Violations of academic integrity (i.e., academic misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred for consideration for academic discipline. Careful records are kept to monitor and prevent recurrences. Any instance of cheating or taking credit for someone else's work, whether intentionally or unintentionally, can and often will result in at minimum a grade of zero for the assignment, and these cases will be reported to the Head of the Department and Associate Dean Academic of the Faculty.

Student Service Resources

Walk-In Well-Being Clinic
The Walk-In Well-Being clinic offers no-fee, brief, single-session psychological services. Sessions are led by a doctoral student in clinical psychology and supervised by a registered psychologist (UBCO Faculty member). Clinicians can provide support with stress management, sleep, self-care, depression, anxiety, interpersonal issues, substance misuse, coping with academic demands/stressors, and provide options for connecting to additional resources. Virtual or in-person sessions are available at the UBCO Psychology Clinic, located in ASC 167 with or without an appointment, on Tuesdays and Thursdays between 10 am and 3 pm from September to June, excluding campus closures.
UNC 337 250.807.8421 (ext. 1)
Email: ipc.ok@ubc.ca
Web: https://psych.ok.ubc.ca/psychology-clinic/walk-in-wellness/

Student Supports, Resources & Campus Services
Visit the Student Support and Resources page to find one-on-one help or explore resources to support your experience at UBC Okanagan, as well as many other campus services available to all students.

Advising Options
Visit the Advising Options page to find out about the variety of advising options available to students including but not limited to academic, career and accessibility.

Safewalk
Don't want to walk alone at night? Not too sure how to get somewhere on campus? Call Safewalk at 250-807-8076.
Web: www.security.ok.ubc.ca