The University of Calgary Bachelor of Health Sciences Cumming School of Medicine

# HSOC 408 Health Research Methods and Research Practicum

### Instructors:

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### **Office Hours/Policy on Answering Student Emails**

By appointment. Emails will generally be answered within 2 working days.

### Time and Location:

#### Fall semester

Tuesday and Thursday: 11:00-13:45 Room: See D2L for location details

Winter semester: Monday: 16:00-17:50 Room: See D2L for location details

Prerequisite/Co-Requisite: MDSC 308

### **Course Description:**

An introduction to the research methods utilized in the Health Sciences. Students will begin to develop the knowledge and skills necessary to conduct research in the Health and Society field. The importance of research design, qualitative, quantitative and mixed methods and the theoretical constructs that inform these approaches will be emphasized.

### **Overarching Theme**

This third-year course was developed through a collaboration with the University and SEARCH (Swift Efficient Application of Research in Community Health) Canada. The course uses an inquiry-based format to give students an opportunity to explore approaches, tools and techniques for conducting applied research in health systems and services and population and public health. Students will develop theoretical knowledge and apply that knowledge in a practice setting with independent researchers. Students will work as part of a research team with a preceptor in a year-long field practicum where they will plan, conduct and write-up a research project. It is hoped that relationships formed between students and researchers will lead to future research opportunities.

### **Global Objectives**

The aim of this course is to provide students in the 3rd year of the Health and Society major with a basic understanding of health research processes as applied to an array of interdisciplinary practice contexts

and to develop the knowledge and skills required to undertake an honours thesis. Although opportunities will be available to join clinical research teams, a majority of the research activities will align to the 3rd and 4th pillars of health research as identified by the Canadian Institutes of Health Research (CIHR):

- 1. Biomedical
- 2. Clinical
- 3. Health Services and systems
- 4. Population and public health

## **Course Learning Outcomes**

*Terminal Objectives* By the end of this course students should be able to:

- 1. demonstrate knowledge of, and make distinctions between, quantitative, qualitative, review and combined/mixed methods approaches to health-oriented research.
- 2. develop a research question and conduct a systematic search for relevant literature.
- 3. assess the appropriateness and limitations of using particular health-oriented research designs.
- 4. understand data collection tools, such as surveys and interviews.
- 5. demonstrate knowledge of ethical principles in research design.
- 6. list the steps and identify challenges involved in mobilizing research to effect action.
- 7. operate as a member of a research team working on a research project within a health and wellness framework.

### **Enabling Objectives**

Achieving each of the following enabling objectives will serve students in accomplishing the above terminal objectives:

- 1. Given a published article, the student should be able to identify the study question, purpose and rationale.
- 2. Given a published article, the student should be able identify the study design as quantitative, qualitative, review or combined/mixed methods. In addition, the student should be able to describe the theoretical frameworks that inform these approaches.
- 3. Given a published article, the student should be able to identify the study method/s employed. Students should be able to describe why the method(s) was/were chosen to answer the research questions and list advantages and disadvantages of the chosen method/s.
- 4. Given a research question, the student should be able to identify sources of evidence to be searched, and formulate a strategy to collect, investigate and evaluate existing evidence.

- 5. Students should be able to synthesize existing evidence on a given topic in the form of a narrative or systematized review, identify the current state of knowledge/knowledge gaps, and make recommendations for future research and practice.
- 6. The student should be able to develop a research proposal that demonstrates their knowledge and understanding of scientific principles.
- 7. The student should be able develop a research report to demonstrate their knowledge and understanding of scientific principles.
- 8. The student should be able to effectively communicate verbally, and in written form, using scientific language, structure, and conventions.
- 9. The student should be able to operate as an effective member of a research team.
- 10. The student should be able to constructively contribute to classroom discussion and activities.

## Transferable Skill Development:

Many of the skills and abilities that you are developing in your coursework are transferable to the workforce, graduate and professional studies and other facets of life. Employers seek applicants with transferable skills because they can be an asset in the workplace, regardless of industry or sector. Transferable skills are core skills for your success in building your future career.

The work that you will do in HSOC 408 will help you build the following transferable skills:

- **Collaboration**: Work respectfully with others from different backgrounds, cultures, and countries.
- **Verbal Communication**: Learn and share information by presenting, listening, and interacting with others.
- **Creativity and Innovation**: Find different and better ways to do things, being curious, thinking imaginatively.
- **Critical Thinking**: Actively and skillfully conceptualize, apply, analyze, synthesize, and/or evaluate information (data, facts, observable phenomena, and research findings) to make a reasoned judgement or draw a reasonable conclusion.
- **Digital Skills**: Use digital technologies like computers, social media, virtual meeting platforms, and the internet.
- Information Literacy: Find, understand, and use information presented through words, symbols, and images
- **Numeracy**: Use mathematical information such as numbers, symbols, words, and graphics to do tasks.
- **Problem solving**: Identify an issue, find and implement a solution, and assess whether the situation has improved.
- **Project Management:** Conceptualize, initiate, plan and execute a plan to achieve a predetermined goal (project) by effectively prioritizing activities and meeting deadlines.
- Written Communication: Share ideas and information by using words, images, and symbols.

## Learning Resources

Links or citations for all required readings will be available on D2L or sent by email.

## **Recommended Textbooks/Readings**

"Social Research Methods 6CE," by Edward Bell, Alan Bryman and Steven Kleinknecht. 2022.

## Learning Technology Requirements

Brightspace (by D2L) is located on the University of Calgary server and will be used extensively for communication with students. It is the student's responsibility to ensure that they receive all posted communications and documents and that they receive emails sent by instructors or fellow students through D2L. Only your @ucalgary.ca email address may be linked to D2L. Please ensure that you are regularly checking your @ucalgary.ca account.

## Evaluation

The University policy on grading and related matters is described in section F of the 2024-2025 Calendar.

In determining the overall grade in the course, the following weights will be used:

Assessment *	Weight (% of Grade)	Due Date and Time
1. Methods Workshop	10%	Throughout October - See class schedule
2. Research Proposal	25%	December 9
3. Oral Presentation I	10%	See class schedule (November 19 <sup>th</sup> – December 5 <sup>th</sup> )
4. Oral Presentation II	15%	See class schedule (February 24 <sup>th</sup> – April 7 <sup>th</sup> )
5. Written Report	30%	April 11
<ol> <li>Classroom Participation and Fieldwork Reflection</li> </ol>	10%	Ongoing Written Reflection due April 14

## 1. Methods Workshop (fall semester)

Each student will select a scholarly reading. This reading can be either an exemplar of the research method that you will use in your research practicum or an explicit discussion of the research method you will use in your project. Student presenters will have 30 minutes to discuss relevant ideas from the reading with course instructors. More comprehensive assignment instructions and a rubric are available on D2L.

# 2. Research Proposal (fall semester)

Each student will write a research proposal based on the work being undertaken for their fieldwork practicum. The proposal will include a literature review, research aims and objectives, theoretical framing, rationale and significance of the study, methods, limitations and timeline. A proposal template is available on D2L.

## 3. Oral Presentation I (fall semester)

The oral presentation provides an opportunity for students to demonstrate an understanding of their fieldwork setting, their preceptor's research interests and their project for the year. Students will have 10 minutes for their oral presentation plus 10 minutes to field questions. More comprehensive assignment instructions and a rubric are available on D2L.

## 4. Oral Presentation II (winter semester)

Students will give a 15-minute oral presentation plus 10 minutes for questions on findings/outcomes of their fieldwork project. This should include a brief description of the background/rationale, theoretical framing, research question/objectives, methods (research design, sample, data collection, analysis), and findings. Where possible, discussion of the findings/outcomes and policy/intervention/research recommendations should constitute the bulk of the presentation. More comprehensive assignment instructions and a rubric are available on D2L.

## 5. Written Report (winter semester)

Students will submit a written report of their fieldwork research in the form of a journal manuscript. This report will follow the manuscript guidelines used by the Canadian Journal of Public Health. Students are encouraged to seek feedback from their preceptors as they develop their reports. More comprehensive assignment instructions and a rubric are available on D2L.

Note that students must complete the course on Research Ethics (CORE) Tutorial (<u>https://tcps2core.ca/welcome</u>) as well as the CIHR Sex and Gender in Health Research Courses 2 and 3 <u>https://cihr-irsc.gc.ca/e/49347.html</u> and include certificates of completion for both courses in the appendix of their final report.

### 6. Classroom Participation and Reflection (fall and winter semesters)

Marks for active participation during your classmates' presentations will be awarded based on constructive contribution to class discussion. Students are expected to attend all of their classmates' presentations as well as all guest lecture sessions. Absences will be noted and will impact students' participation grade.

Students will submit a brief paragraph summarizing oral feedback received from the preceptor/members of the preceptor's research team regarding the student's overall fieldwork performance and a brief reflection on that feedback.

There is no final exam for this course.

A student's final grade for the course is the sum of the separate assignments. It is not necessary to pass each assignment separately in order to pass the course.

## A Note regarding Writing Assignments:

Writing skills are important to academic study in all disciplines. In keeping with the University of Calgary's emphasis on the importance of academic writing in student assignments (section E.2 of 2024-25 Calendar), writing is emphasized, and the grading thereof in determining a student's mark in this course. The Bachelor of Health Sciences values excellence in writing. Competence in writing entails skills in crafting logical, clear, coherent, non-redundant sentences, paragraphs and broader arguments, as well as skills with the mechanics of writing (grammar, spelling, punctuation). Sources used to complete each assessment must be properly documented, unless otherwise noted by the instructor. The University of Calgary offers instructional services through the Students' Success Centre's Writing Support Services (<u>http://www.ucalgary.ca/writingsupport/</u>) for students seeking feedback on assignments or seeking to improve their general writing skills. Students are **strongly encouraged** to take advantage of these programs.

Letter Grade	Description	Percentage
A+	Outstanding performance	96-100
Α	Excellent performance	90-95.99
A-	Approaching excellent performance	85-89
B+	Exceeding good performance	80-84
В	Good performance	75-79
В-	Approaching good performance	70-74
C+	Exceeding satisfactory performance	65-69
С	Satisfactory performance	60-64
C-	Approaching satisfactory performance	57-59
D+	Marginal pass	54-56
D	Minimal pass	50-53
F	Does not meet course requirements	0-49

### **Grading Scheme:**

### **Missed Components of Term Work:**

Students may lose 5% per day late past the deadline for late submissions.

### **Course Evaluations and Student Feedback**

Student feedback will be sought at the end of the course through the new UCalgary Course Experience Survey and a qualitative student evaluation. Students are welcome to discuss the process and content of the course at any time with the instructor. Students may also address any concerns they may have with Dr. Fabiola Aparicio-Ting, Associate Dean (Undergraduate Health and Science Education) in the Cumming School of Medicine (feaparic@ucalgary.ca).

### Attendance

Attendance at guest lectures and at student presentations contributes to your participation grade. Notify the course instructor in advance of any absence and provide a reason.

### **Conduct During Lectures**

The classroom should be respected as a safe place to share ideas without judgement - a community in which we can all learn from one another. Students are expected to frame their comments and questions to lecturers in respectful and appropriate language, always maintaining sensitivity towards the topic.

Students, employees, and academic staff are also expected to demonstrate behaviour in class that promotes and maintains a positive and productive learning environment.

As members of the University community, students, employees and academic staff are expected to demonstrate conduct that is consistent with the University of Calgary Calendar, the Code of Conduct and Non-Academic Misconduct policy and procedures, which can be found at <a href="https://ucalgary.ca/student-services/student-conduct/policy">https://ucalgary.ca/student-services/student-conduct/policy</a>.

## Use of Internet and Electronic Communication Devices in Class

The Bachelor of Health Sciences program aims to create a supportive and respectful learning environment for all students. The use of laptop and mobile devices is acceptable when used in a manner appropriate to the course and classroom activities. However, research studies have found that inappropriate/off-topic use of electronic devices in the classroom negatively affects the learning of others during class time.

Students are responsible for being aware of the University's Internet and email use policy, which can be found at <u>https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-electronic-resources-and-information-policy</u>.

## **Use of Artificial Intelligence Tools**

Generative Artificial Intelligence (AI), and specifically foundational models that can create writing, computer code, and /or images using minimal human prompting includes not only GPT-4 (and its siblings ChatGPT and Bing), but many writing assistants that are built on this or similar AI technologies.

Students may use artificial intelligence tools for background tasks, such as creating an outline, but the **final submitted assignment(s) must be original work produced by the individual student alone; students are ultimately accountable for the work they submit**. This use must be documented in an appendix for each assignment. The documentation should include what tool(s) were used, how they were used, and how the results from the AI were incorporated into the submitted work. You could also be asked to provide evidence of your own work. Failure to cite the use of AI generated content in an assignment/assessment will be considered a breach of academic integrity and subject to Academic Misconduct procedures.

## UNIVERSITY OF CALGARY POLICIES AND SUPPORTS

## Copyright

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<u>https://www.ucalgary.ca/legal-services/university-policies-</u> <u>procedures/acceptable-use-material-protected-copyright-policy</u>) and requirements of the Copyright Act (<u>https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html</u>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks, etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy <u>https://www.ucalgary.ca/legal-services/university-policies-</u> <u>procedures/student-non-academic-misconduct-policy</u>

### Instructor Intellectual Property

Course materials created by instructors (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may **NOT** be reproduced, redistributed or copied without the explicit consent of the professor. **The posting of course materials to third party websites such as note-sharing sites without permission is prohibited**. Sharing of extracts of these course materials with other students enrolled in the course **at the same time** may be allowed under fair dealing.

### Academic Accommodations

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The Student Accommodations policy is available at <u>https://ucalgary.ca/student-services/access/prospective-students/academic-accommodations</u>. Students needing an accommodation based on disability or medical concerns should contact Student Accessibility Services (SAS) in accordance with the Procedure for Accommodations for Students with Disabilities (<u>https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf</u>).

Students who require an accommodation in relation to their coursework based on a Protected Ground other than Disability should communicate this need in writing to Dr. Fabiola Aparicio-Ting (feaparic@ucalgary.ca), Associate Dean (Undergraduate Health and Science Education).

### Academic Misconduct

The University of Calgary is committed to the highest standards of academic integrity and honesty. The University of Calgary has created rules to govern all its members regarding the creation of knowledge and the demonstration of knowledge having been learned.

Academic Misconduct refers to student behaviour that compromises proper assessment of a student's academic activities and includes (but is not limited to): cheating, fabrication, falsification, plagiarism, unauthorized assistance, failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses, and failure to comply with exam regulations applied by the Registrar. It also includes using of third party websites/services to access past/current course material, essay/assignment writing services, or real-time assistance in completing assessments, seeking answers to assessment questions and similar, whether paid, bartered or unpaid.

For information of the Student Academic Misconduct Policy and Procedures, please visit; <u>https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-policy</u>.

Additional information is available on the Academic Integrity website at: <u>https://ucalgary.ca/student-services/student-success/learning/academic-integrity</u>.

## **Recording of Lectures**

Audio or video recording of lectures (or similar) by students is prohibited except where explicit permission has been received from the instructor.

## Freedom of Information and Protection of Privacy Act

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary

## Appeals

If there is a concern with the course, academic matter or a grade, first communicate with the instructor. If these concerns cannot be resolved, students can proceed with an academic appeal, as per Section I of the University Calendar. Students must follow the official reappraisal/appeal process and may contact the Student Ombuds' Office (<u>http://www.ucalgary.ca/student-services/ombuds</u>) for assistance with this and with any other academic concerns, including academic and non-academic misconduct. Students should be aware that concerns about graded term work may only be initiated **within 10 business days** of first being notified of the grade.

https://calendar.ucalgary.ca/pages/e31a7115dca740ec83579e946d4a4193

## Sexual and Gender-Based Violence Policy

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at <a href="https://www.ucalgary.ca/legal-services/university-policies-procedures/sexual-and-gender-based-violence-policy">https://www.ucalgary.ca/legal-services/university-policies-procedures/sexual-and-gender-based-violence-policy</a>

## Resources for Support of Student Learning, Success, Safety and Wellness

Student Success Centre	http://www.ucalgary.ca/ssc/	
Student Wellness Centre	http://www.ucalgary.ca/wellnesscentre/	
Student Advocacy and Wellness Hub (CSM)		
https://cumming.ucalgary.ca/mdprogram/current-students/student-advising-wellness		
Distress Centre	http://www.distresscentre.com/	
Library Resources	http://library.ucalgary.ca	

### **Wellness and Mental Health Resources**

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the excellent mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (https://www.ucalgary.ca/wellnesscentre/services/mental-health-services) and the Campus Mental Health Strategy (http://www.ucalgary.ca/mentalhealth/).

## **Student Ombuds' Office**

The Student Ombuds' Office supports and provides a safe, neutral space for students. For more information, please visit <u>www.ucalgary.ca/student-services/ombuds/</u> or email ombuds@ucalgary.ca

## BHSc Student Faculty Liaison Committee (SFLC)

The BHSc SFLC, with elected representatives from all majors, serves to raise issues of interest to BHSc students to the program administration, including items pertaining to curriculum, scheduling and events. A list of current representatives can be found on the BHSc website.

### **Student Union (SU) Information**

The SU Vice-President Academic can be reached at (403) 220-3911 or suvpaca@ucalgary.ca; the SU representatives for the Cumming School of Medicine can be reached at medrep1@su.ucalgary.ca or medrep2@su.ucalgary.ca.

### **Student Success Centre**

The Student Success Centre provides services and programs to ensure students can make the most of their time at the University of Calgary. Our advisors, learning support staff, and writing support staff assist students in enhancing their skills and achieving their academic goals. They provide tailored learning support and advising programs, as well as one-on-one services, free of charge to all undergraduate and graduate students. For more information visit: <u>https://www.ucalgary.ca/student-services/student-success</u>

### **Emergency Evacuation/Assembly Points**

As part of the University of Calgary Emergency Evacuation plan, students, faculty, and staff should locate the closest Assembly Point in case of Fire Alarm. Safety signage is posted throughout the campus showing the locations and the possible route to these locations. All students, faculty, and staff are expected to promptly make their way to the nearest Assembly Point if the Fire Alarm is activated. No one is to return into campus facilities until an all clear is given to the warden in charge of the Assembly Area. For more information, see <a href="https://www.ucalgary.ca/risk/emergency-management/drills/assembly-points-and-evacuation-maps">https://www.ucalgary.ca/risk/emergency-management/drills/assembly-points-and-evacuation-maps</a>

### Safewalk

Campus security will escort individuals, day or night, anywhere on campus (including McMahon Stadium, Health Sciences Centre, Student Family Housing, the Alberta Children's Hospital and the University LRT station). Call 403-220-5333 or visit http://www.ucalgary.ca/security/safewalk. Use any campus phone, emergency phone or the yellow phone located at most parking lot pay booths. Please ensure your personal safety by taking advantage of this service.