MDSC 205
Developing Health Research Literacy II

Instructors:

Dr. Megan Delehanty (she/her)
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Office Hours/Policy on Answering Student Emails
Emails will generally be responded to within 2 business days

Teaching Assistants:

Hannah O'Riain (they/them)
Alican Basdemir (he/him)
Chantal Bazinet (she/her)

Time and Location:
T 0900-1150hrs
Lectures will generally run from 0900-1015hrs. Check D2L for lecture location. Clinics will run from 1030-1150hrs. Check D2L for location of clinics.

Prerequisite/Co-Requisite:
Medical Science 203 and admission to the BHSc Honours program.

Course Description:
Students will develop their critical thinking skills and their ability to write logically, well-argued research papers. Students will learn the fundamentals of logical reasoning as well as how to analyze theoretical issues in science, medicine, and philosophy.

Overarching Theme
Students will attend a series of lectures and more interactive "clinics." The first few weeks of lectures will help students build a foundation in the philosophy of science. This foundation will prepare students for a series of lectures on the nature of scientific evidence and will help with students' writing assignments. Each student will be placed in two clinics, where they will read and discuss papers on a focal topic selected by the clinic preceptor.

Global Objectives
1) Students will further develop skills of reasoning and academic writing and deepen their understanding of conceptual issues in health science.
2) Students will learn how to recognize and evaluate arguments, use evidence to draw conclusions, consider objections and formulate replies.
3) Students will analyze and write about academic papers on a range of science and medicine-related topics.

Course Learning Outcomes

By the end of this course, students should develop….
• Broad knowledge of diverse philosophical issues, problems, traditions, and views
• Deep knowledge of one central area of philosophical inquiry
• Ability to critically digest, interpret, and analyze complex sources
• Ability to write a convincing argument that takes adequate account of alternative positions
• Ability to engage in constructive, respectful, oral and written argumentation

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 MDSC 205 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.
- **Information Literacy**: Find, understand, and use information presented through words, symbols, and images
- **Written Communication**: Share ideas and information by using words, images, and symbols.

Learning Resources
All course readings will be made available through D2L.

Recommended Textbooks/Readings
The Stanford Encyclopedia of Philosophy—http://www.plato.stanford.edu

A Note regarding readings

A list of required readings will be outlined on D2L and links and documents will be made available, where possible. Required readings have been chosen carefully to inform you and enhance the lecture material**. Students are REQUIRED to complete assigned readings BEFORE each lecture.** Instructors will proceed in class on the assumption that students have read completely the assigned readings. Students should be aware that many of the readings they will be assigned may be of an unfamiliar nature and style. Students should allot sufficient time to allow for several reads of the assigned material.

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.

A laptop, desktop, tablet or mobile device is required for D2L access. If you need help accessing or using D2L, please visit the Desire2Learn resource page for students: http://elearn.ucalgary.ca/d2l-student/.

Evaluation

Assignment	Value	Due Date
Analysis 1	15%	February 5
Analysis 2	20%	March 11 (return 18)
Term Paper Proposal	10%	March 29 (return April 5)
Term Paper	35%	April 19
Paper Perusalls	20%	January 15, 23, 30, February 5, 12, 26, March 4, 11, 18, 25, April 1

Analysis #1: A short (maximum 400 words) paper articulating the argument made in your first clinic's 4th reading.

Analysis #2: A short (maximum 600 words) paper articulating the argument made in your second clinic's 3rd reading and developing an objection to that argument.

Paper Perusalls: Students will collaborate with a group of classmates to work through the material on Perusall. This will include annotating lecture readings and identifying questions about the material. Each student's 2x lowest Perusall scores will be excluded from final grade calculations.

Term paper proposal: Your proposal (max 300 words) should identify your research question or problem and explain how you intend to address this question or problem.

Term paper: An in-depth investigation (max 2500 words) on a topic arising from the second clinic/

There will be no final exam.

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.

24 hour 'stress-buster': each student may submit either the Term Paper Proposal or the Term Paper 24hrs past the due date without penalty. In order to qualify, you must write your course instructor or preceptor BEFORE the assignment due date to indicate your intent to use the 'stress-buster'. This offer does NOT apply to the analysis assignments nor to the Perusall assignments.

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 2023-24 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 in research

papers must be properly documented. The University of Calgary offers instructional services through the Students' Success Centre's Writing Support Services (http://www.ucalgary.ca/writingsupport/) for students seeking feedback on assignments or seeking to improve their general writing skills. Students are **strongly encouraged** to take advantage of these programs.

Grading Scheme:

Letter Grade	Description	Percentage
A+	Outstanding performance	96-100
A	Excellent performance	90-95.99
A-	Approaching excellent performance	85-89
B+	Exceeding good performance	80-84
B	Good performance	75-79
B-	Approaching good performance	70-74
C+	Exceeding satisfactory performance	65-69
C	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

Missed Components of Term Work:
Students will lose 5% per day late past the deadline for all assignments. In this case, assignments will **NOT** be accepted more than 72 hours after the posted deadline and students failing to submit any assignment within this time frame will receive a mark of zero.

Course Evaluations and Student Feedback

Student feedback will be sought at the end of the course through the Universal Student Rating of Instruction (USRI) 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
The University has directed that attendance will not be considered when assessing a student's grade except in courses where class participation is a required component of the course. Students are nonetheless strongly encouraged to attend all sessions. While it may seem like better use of your time to work on assignments for this or other courses rather than attend lecture or clinic, your capacity to do well on assignments in very much enhanced by attending all sessions.

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 https://www.ucalgary.ca/student-services/student-conduct/policy .

Students are expected to take notes during class and should not rely solely on material supplied by the instructors. Instructors may or may not post lectures notes to D2L, at their individual discretion. Instructors may cover concepts or examples in class that may not be posted to D2L but may be assessed.

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 https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Acceptable-Use-of-Electronic-Resources-and-Information-Policy.pdf.

Use of Artificial Intelligence Tools
Artificial intelligence tools are very good at many things, including summarizing longer texts. This is not the same thing as reconstructing the argument that an author makes in an article, book chapter, or other piece of writing. Doing the latter is an important skill that we want you to develop in this course, as is critical evaluation of arguments.

Students may use AI tools to produce a summary of readings that are assigned for this course as an initial step in understanding the readings (e.g. you may use a summary of the reading to give you enough of a sense of the content to help you make your way more easily through the reading itself). However, **students may not copy or paraphrase any generative AI applications,** including ChatGPT and other AI writing assistants) **for the purpose of completing assignments in this course**. All work submitted for this class (including on Perusall) assignment must be original work produced by the individual student alone. Use of generative AI for written assignments in this course may be considered use of an unauthorized aid, which is a form of cheating and a breach of academic integrity 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 (https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy) and requirements of the Copyright Act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) 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 https://www.ucalgary.ca/pubs/calendar/current/k.html.

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 https://ucalgary.ca/student-services/access/prospective-students/academic-accommodations. 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 (https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf). SAS will process the request and issue letters of accommodations to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/ .

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; https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-policy.

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

Recording of Lectures
Audio or video recording of lectures (or similar) 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 (http://www.ucalgary.ca/student-services/ombuds) 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://www.ucalgary.ca/pubs/calendar/current/i-2.html

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 https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Sexual-and-Gender-Based-Violence-Policy.pdf.

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 UCalgary Wellness Centre (https://www.ucalgary.ca/wellness-services/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 www.ucalgary.ca/student-services/ombuds/ 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: https://www.ucalgary.ca/student-services/student-success

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 https://www.ucalgary.ca/emergencyplan/building-evacuation/assembly-points

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.

The following is a list of topics for class and associated readings. Please note that unforeseen circumstances may cause changes to the schedule with respect to the timing of topics and readings. Students will be notified of all changes in a timely manner by way of email and D2L announcements.

DATE	TOPIC	READING	CLINIC	READING
09-Jan	Introductions/Syllabus Review			
16-Jan	Logical Positivism	None	1-1	
23-Jan	Falsificationism	Popper	1-2	Popper*
30-Jan	Normal Science and Revolutions	Kuhn I	1-3	Kuhn I*
06-Feb	Roots of Pluralism	Kuhn II	1-4**	Kuhn II*
13-Feb	Values in Science	Longino	1-5	Longino*
20-Feb	TERM BREAK			
27-Feb			2-1	*
05-Mar			2-2	*
12-Mar			2-3**	*
19-Mar			2-4	*
26-Mar			2-5	*
02-Apr			2-6	*
09-Apr	NONE		NONE	

*Perusall assignment due by 4pm the day BEFORE reading is discussed in class
** Analysis assignment due 1159hrs the day BEFORE reading to be discussed in clinic