



Philosophy of Science 1: Social Epistemology & Population Health Science

The land on which this class takes place is traditional and unceded territory of the Kanien'keha:ka (Mohawk), a place which has long served as a site of meeting and exchange amongst nations.

General Information

Course code: PHIL 341

Prerequisites: There are no prerequisites for this course.

Term: Winter 2022

Course schedule: Mondays (M) & Wednesdays (W) 08:35–09:55AM EST.

Course location: RPHYS 115

Instructor Information

Name: Sarah Clairmont (she/her/elle)

Email: sarah.clairmont@mcgill.ca

Office hours: Wednesdays 10:00–11:30AM EST

Office location: via Zoom (link on MyCourses) or in person (Leacock 932)

Course Description

Epidemiologic evidence continues to suggest that the mainsprings of health are not to be found in individual biology or personal life choices. The primary determinants of individual and population health are socioeconomic factors. Hence, social organization, and especially social injustices are of increasing concern for health scientists. This emphasis on social factors – from actual distributions of social and economic resources to the ideological forces that shape policy decisions – is sometimes referred to as the social determinants of health revolution.

There are important themes in the philosophy of science that have not yet been brought to bear on this social turn in epidemiology. Just as scientists recognize that distributions of health should be studied alongside the social contexts in which they occur, feminist philosophers of science have demonstrated that science itself is not a value-neutral enterprise. The kinds of research projects that are taken up often depend on the interests of actual scientists and the social or political pressures placed upon them. The aim of this course is to bring these resources to bear on knowledge of the social determinants of health. The course is divided into three modules. Module 1 examines classical problems in the philosophy of science, as applied to epidemiology specifically. Module 2 contrasts feminist values critiques of science with other critical insights from social epistemology. Module 3 applies these insights to current topics in the social determinants of health literature.

Remote Delivery

Remote lectures will be delivered via Zoom during the scheduled course time. Lectures will be approximately 45 to 50 minutes followed by group discussion. All remote lectures and subsequent discussions will be recorded and uploaded to MyCourses in both video and audio-only format. Attendance to course lectures is encouraged but not mandatory.

Zoom Etiquette

Unless you are speaking, please mute your microphone to avoid interference. Please make use of the electronic hand-raising function to notify the Instructor of any questions or comments. To make the virtual space more accessible, I encourage students to keep their video turned on when speaking.

Course Material and Readings

All readings are available in electronic format, on MyCourses or through the McGill library. All readings are required, unless marked “optional.”

Assessment & Learning Objectives

This course uses a teaching and learning strategy called assignment scaffolding. Assignment scaffolding “can help students succeed by breaking down complicated tasks and content into manageable parts of gradually increasing complexity” (University of Toronto Center for Teaching and Learning). Each assignment is designed to guide students through the process of planning and completing a successful term paper. Specific learning objectives are provided below.

Assignment	Weight	Due Date
Module 1 Quiz	20%	Friday Feb. 11 th
Module 2 Exercise	25%	Monday March 7 th
Term paper outline (This assignment is now optional: see the assignment instructions on MyCourses for more details)	20%	(Wednesday March 30 th)
Term paper	35%	Monday April 11 th

Module 1 Quiz (20%)

The quiz is comprised of approximately 20 multiple-choice questions. It will be available on MyCourses for one week and must be completed by 11:59PM Fri. **Feb. 11th**. Students will have multiple attempts.

Learning objective: the purpose of the M1 quiz is to help students identify key concepts from the first module.

Module 2 Exercise (25% collaborative option)

Students will be asked to critically evaluate material covered in Module 2. You are encouraged to work collaboratively (with a partner or in groups of three) but may choose to work independently. This is a written assignment and must be submitted in either .docx or .PDF format. Responses are due by 11:59PM Mon. **Mar. 7th**. Further instructions will be provided in class.

Learning objectives: the purpose of the M2 exercise is to help students articulate complex ideas in a clear and concise way, preparing them for the expository section of the term paper.

Term Paper Outline (20%)

This is an outline of your final paper. It is a written assignment (*max. 2 pages*) and must be submitted in either .docx or .PDF format. The term paper outline should (i) clearly state the essay topic, including a thesis statement and (ii) provide a brief overview of the relevant literature (including a summary of the selected medical study). Further instructions for the term paper outline will be provided in class. The term paper outline is due by 11:59PM Wed. **Mar. 30th**.

Learning objective: The purpose of the term paper outline is to give students the opportunity to receive detailed feedback on their ideas for the final paper.

Term Paper (35%)

This is a written assignment and must be submitted in either .docx or PDF format. Your term paper must engage with at least one recent medical study. Students may choose from a list of studies provided by the Instructor or find their own. (We will go over research strategies in class.) Further instructions for the term paper will be provided in class. The term paper is due Mon. **Apr 11th**.

Learning objectives: The purpose of the term paper is to provide students with an opportunity to (i) develop in-depth knowledge of a particular epistemological issue within population health science; (ii) explain difficult ideas in a clear and concise way, and (iii) apply their knowledge to recent scientific research.

Course Policies

Email: Please include ‘PHIL 341’ in the subject line of all emails related to this course. Before emailing the Instructor, check the syllabus to see if the answer to your question can be found there. Short emails (with clear, pointed questions)

are appreciated and will be responded to more quickly. I will do my best to reply within 24 hours, excluding weekends. Questions about course content should be asked *in person* (via Zoom), during office hours or by appointment.

Accommodations: If you are a student with a disability or think you may encounter barriers in this course, you are encouraged to contact the Office for Students with Disabilities (OSD) and register. Please inform the Instructor of any accommodations you may require.

Submitting work: All assignments are to be submitted online, through MyCourses (not by email) and must be submitted in either .docx or PDF format.

Lateness and extensions: Extensions will be granted only in exceptional circumstances, usually for medical reasons or similar emergencies, appropriately documented. Late work will be penalized at the rate of 5% per calendar day past the due date. E.g., a paper submitted one day late that is evaluated at 75% will receive a final grade of 70%, if two days late, 65% and so on. Work submitted more than seven days late will receive a mark of 0.

Language of Submission: In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Academic Integrity: McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism, and other academic offences under the Code of Student Conduct and Disciplinary Procedures. (See www.mcgill.ca/students/srr/honest/ for more information).

Syllabus change policy: The syllabus is intended as a guide for the course and is subject to change and/or revisions with advanced notice.

Course schedule and readings (next page)

Course schedule and readings

Module 1

Wk	Date	Topic	Readings
1	(W) Jan. 5	Introduction [Remote delivery]	~ No readings ~
2	(M) Jan. 10 (W) Jan. 12	The Problem of Induction [Remote delivery]	Broadbent (2013) Ch. 2: “Philosophical and epidemiological basics” ~15 pages~ Broadbent (2013) Ch. 3: “The Causal Interpretation Problem” ~30 pages
3	(M) Jan. 17 <i>Add/Drop:</i> <i>Jan. 18</i> (W) Jan. 19	Stability [Remote delivery] Prediction [Remote delivery]	Broadbent (2013) Ch. 5 “Stable causal inference” ~13 pages <i>Optional:</i> Broadbent (2013) Ch. 4: “Causal inference, translation, and stability” ~ 9 pages Broadbent (2013) Ch. 7 “Making and assessing epidemiological predictions” ~14 pages <i>Optional:</i> Broadbent (2013) Ch. 6 “Prediction” ~16 pages
4	(M) Jan. 24 (W) Jan. 26	Science & Society	Douglas (2004) “Border skirmishes between science and policy: autonomy, responsibility, and values” ~21 pages~ Intemann (2020) “Feminist Perspectives on values in science” ~15 pages

End of Module 1 (Deadline to complete M1 quiz is Feb. 11th)

Module 2

5	(M) Jan 31 (W) Feb 2	The social structure of scientific knowledge	Crasnow (2020) “Feminist philosophy of science as social Epistemology” ~10 pages <i>Optional:</i> SEP entry on social epistemology Fernández Pinto (2020) “Ignorance, science, and feminism”
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6	(M) Feb. 7	Lessons from feminist philosophies of science	de-Melo-Martin (2011) ‘Feminist resources for biomedical research: Lessons from the HPV Vaccines’ ~18 pages
	(W) Feb. 9		Hoffman and Bluhm (2016) “Neurosexism and Neurofeminism” ~14 pages
Reminder: Deadline to complete M1 quiz is Friday Feb. 11 by 11:59PM EST			
7	(M) Feb. 14	Epistemic ignorance	Alcoff (2020) “Race and Gender and Epistemologies of Ignorance” ~9 pages
	(W) Feb. 16	Epistemic injustice [Guest lecture: Meyra Çoban]	Daukas (2020) “Epistemic justice and injustice” ~8 pages
8	(M) Feb. 21	Epistemic violence	Dotson (2011) “Tracking epistemic violence, tracking practices of silences” ~19 pages
	(W) Feb. 23	Epistemic oppression	Olúfemi O. Táíwò (2022) “Being-in-the-room privilege: Elite capture and epistemic deference” ~7 pages
End of Module 2 (Deadline to complete M2 exercise is March 7th)			
~ Study Week (Feb. 28 – Mar. 4) ~			
Module 3			
9	(M) Mar. 7 <i>Withdrawal without refund</i> Mar. 8	<i>Class cancelled</i>	
	(W) Mar. 9	Introduction to the Social Determinants of Health	YouTube video (no readings).
Reminder: Deadline to complete M2 exercise Monday Mar. 7 by 11:59PM EST			

10	(M) Mar. 14	Pandemics	Sheldon and Malhotra (2020) “Not all in this together: Disability rights and COVID-19” ~14 pages
	(W) Mar. 16		Liew (2020) “Spread of Anti-Asian Racism: Prevention and critical race analysis in pandemic planning” ~14 pages
11	(M) Mar. 21	Research ethics governance	Bull et al. (2019) “Shifting practise: recognizing Indigenous rights holders in research ethics review” ~12 pages
	(W) Mar. 23		Cox et al. (2020) “Epistemic Strategies in Ethical Review: REB Member’s experiences of assessing probable impacts of research for human subjects” ~8 pages
Term Paper outline due by 11:59PM Wed. Mar. 30th			
12	(M) Mar. 28	Measuring bias	Mathur et al., (2014) “Racial bias in pain perception and response: Experimental examination of automatic and deliberate processes” ~8 pages
	(W) Mar. 30	Community efforts [Guest lecture: Geneviève Vande Wiele Nobert]	Chen (2020) “Migrant Health in a Time f Pandemic: Fallacies of Us-Versus-Them” ~20 pages
13	(M) Apr. 4	Vaccines	Navin (2015) “Bias and the ‘irrationality’ of vaccine denialism” ~23 pages
	(W) Apr. 6)		Nickerson and Herder (2020) “COVID-19 vaccines as global public goods” ~10 pages
14	(M) Apr. 11	Review & Wrap Up	~ No Readings ~
Deadline to submit term paper: 11:59PM Tues. April 13th			