

SPPH 531
Health Care Systems Analysis
UBC School of Population and Public Health
ZOOM: <https://ubc.zoom.us/j/3199834136> | Mondays 1:00-4:00pm

Course Description

This course provides an introduction to theoretical and practical issues in relation to population data science and learning health systems. The theory will cover how we think about the performance of health systems, what learning health systems are, the data and other infrastructure we need to support learning and improvement, and the ethical legal and social considerations that underline all of this work. The practical part of the course is focused on real-world application of these theories, for example through projects related to population data science and artificial intelligence. The overarching project will be to use all of these ideas to design a data collection, research and engagement approach to address a real-world policy challenge.

This course uses a problem-based learning approach to introduce students to the material. Each week of the course will build on the last. The material covered here will be complementary to other SPPH courses, building health services research competencies such as knowledge of health care system frameworks and critical and analytic thinking.

This course is intended for second year students, as it will assume knowledge of many of the concepts taught in foundational required courses. Students completing a one-year Master's program will be considered and are encouraged to contact the instructor to discuss their interest. This course will be relevance to students with a wide variety of interests, from health policy to data analysis including data science to ethical, legal and social considerations to public and community engagement.

During this pandemic, the shift to online learning has greatly altered teaching and studying at UBC, including changes to health and safety considerations. Keep in mind that some UBC courses might cover topics that are censored or considered illegal by non-Canadian governments. This may include, but is not limited to, human rights, representative government, defamation, obscenity, gender or sexuality, and historical or current geopolitical controversies. If you are a student living abroad, you will be subject to the laws of your local jurisdiction, and your local authorities might limit your access to course material or take punitive action against you. UBC is strongly committed to academic freedom, but has no control over foreign authorities (please visit <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,33,86,0> for an articulation of the values of the University conveyed in the Senate Statement on Academic Freedom). Thus, we recognize that students will have legitimate reason to exercise caution in studying certain subjects. If you have concerns regarding your personal situation, consider postponing taking a course with manifest risks, until you are back on campus or reach out to your academic advisor to find substitute courses. For further information and support, please visit: <http://academic.ubc.ca/support-resources/freedom-expression>

Instructor:

Kim McGrail, PhD, Professor, Centre for Health Services and Policy Research, School of Population and Public Health, UBC | kim.mcgrail@ubc.ca | Office hours by appointment

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Class Time & Location: Mondays 1:00-4:00 pm, Room 424 SPPH, and on ZOOM. All class sessions will be held using the following link: <https://zoom.us/j/3199834136>

Class will start promptly at 1 pm, and students are expected to attend (except under extenuating circumstances) and to arrive on time.

Class Schedule

Note this is still in draft and is subject to change.

Week #	Date	Topic	Assignments / Notes
1	Jan 10	Introduction to the course Systems and systems thinking Simple vs. complicated vs. complex Night in the ER – simulation, what do you have to ask for, how decisions are made Student personae (each student will choose a persona, e.g. health care provider, hospital CEO, LTC operator, regional director, city mayor, MLA, Assistant Deputy Minister, University-based researcher, patient, caregiver or family member, new immigrant etc. People can choose a complex persona.	
2	Jan 17	Learning systems and System Performance Concepts / theory / building blocks IOM concepts AND Manear concepts Practice (use breakouts after concepts / theory bit to get students to brainstorm examples of learning systems – any industry or discipline. Draw out characteristics.)	
3	Jan 24	Legislation and ethics <ul style="list-style-type: none"> - Legislation focus on privacy - General ethics informed by values Ethics focus on autonomy, beneficence and justice The data lifecycle - all the stages and activities required at each Practical challenges – how does this translate to what people have to do on the ground (e.g. PIA)	
4	Jan 31	Data collection	

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		<p>A day in the life of data / the “data lifecycle” admin vs clinical data representativeness qualitative data</p> <p>gaps in current system: outcomes, client-centric lens, identifiability</p> <p>SKILLS NEEDED - across technical, subject matter expertise, and interpersonal domains. gaps across research/operations (and small p politics)</p> <p>QI - falling into broader LHS framework</p>	
5	Feb 7	<p>Data curation FAIR principles Open Science Metadata</p>	
6	Feb 14	<p>Data access Five Safes Trusted Third Party</p> <p>Data use Secure environments Analysis Multi-stakeholder involvement</p>	
7	Feb 28	<p>Data Sovereignty – with strong but not exclusive focus on Indigenous data sovereignty In Plain Sight report DRIPA / UNDRIP OCAP / CARE / EGAP</p>	
8	Mar 7	<p>Data visulation, telling stories, KT</p> <p>Visualization for management, for applied knowledge users, and as an active practice.</p> <p>Include how to tell stories, but also who is legitimately able to do so and how to tie into clinical workflows</p> <p><i>Possible student presentation or student-led session? Develop something in relation to your persona</i></p>	

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9	Mar 14	Artificial Intelligence Theory Differences and implications for everything discussed so far Applications	
10	Mar 21	Public involvement Consensus statement Arnstein ladder, IAPP Human Rights Commissioner	
11	Mar 28	Student presentations - 10 minutes each responding to a particular question (- Content is background material that provides prep for the in-class deliberation	
11	Apr 4	In-class deliberation Small groups – 45 minutes Large groups – policy statements	