

SPPH 302 001: Topics In Health Informatics

Syllabus v01 2023-06-09

ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

1. COURSE INFORMATION

Course	Location	Credits	Prerequisites	Times
SPPH 302-BL1 Topics in Health Informatics for Health / Life Science Students	WOOD IRC 5	3	None	Thursdays 17:00-20:00 Pacific Standard Time

2. CONTACTS

Course Instructors	Contact Details	Office Hours
Adam Kahnamelli [Instructor]	Please contact through Canvas and allow for 48 hours in response time. Inquiries requiring immediate support should be directed to the course Teaching Assistants.	Students can arrange for virtual meetings as required.
Chris Mok [Teaching Assistant]	Can be contacted through Canvas.	Virtual. Thursdays from 4-5pm.
Hebah Hussaina [Teaching Assistant]	Can be contacted through Canvas.	Virtual. Tuesdays from 5-6pm.

3. COURSE STRUCTURE

The course will take a blended approach with in person seminars and self directed learning weeks. Seminars will include components of lecture, case studies, and group discussions. The course will focus on developing basic literacy in health informatics while exploring innovative approaches to healthcare implementation, access to care, and data utilization. Students will work closely with their peers to develop an implementation plan for a healthcare technology innovation of their choosing.

Seminars will generally follow the agenda below:

- Lecture [30 minutes]
- Discussions [20 minutes]
- Break [10 minutes]

- Case Study [50 minutes]
- Break [10 minutes]
- Coaching on Final Project [30 minutes]
- Closing & Questions [30 minutes]

Notes on our learning environment

This course uses an approach labeled *LACE* - Learning, Application, Consolidation, and Exploration. Classroom sessions will serve to consolidate individual and small group learnings and explore further applications of the course content. This will often involve small group activities or case study exploration. Students can expect to be provided real world challenges for exploration and group problem solving. Course weeks will be a combination of in person classes and self directed learning weeks. The following weeks will be in person classes: 1, 3, 5, 8, 10, 13, 14. These weeks are highlighted in the schedule below. The following weeks will be self directed research weeks and will **not** have an in person class: 2, 4, 6, 7, 9, 11, 12. Students will be informed of any changes to the course schedule.

4. LEARNING OUTCOMES

- Students will be oriented to a range of topics linking the tools of informatics with specific challenges in healthcare technology utilization.
- Students will be introduced to real world healthcare challenges and explore opportunities to address these challenges through innovative application of technology solutions.
- Students will learn how to develop a holistic technology implementation plan that addresses a current healthcare challenge.

Upon completion of SPPH302 the student will be able to:

- Explain current challenges in the Canadian Healthcare environment and the advancements in health informatics that are contributing to innovation & improvement in this environment.
- Describe health informatics and its various applications.
- Explain how data can be stored, queried, secured, and transferred in health information systems.
- Describe a variety of health informatics innovations to assist in providing quality healthcare delivery and technology enablement.
- Examine how innovations and issues in health informatics might apply to specific healthcare scenarios.

Identify human factors in health informatics, such as workflow, knowledge translation, education and change management, and outline methods and tools that might assist in managing these.

5. LEARNING ACTIVITIES

Students are expected to participate in small group activities, actively contribute to in-class discussions, and attend class having completed assigned readings. In the case that classes are held virtually, students are expected to have their cameras on throughout the duration of each lecture to support our shared learning environment.

Students will participate in the following activities during the course:

- Small group project(s) & case studies

- Small group presentations
- Small group & class discussions
- Multiple choice examinations

6. LEARNING MATERIALS

Required course materials will be posted to Canvas. There is no textbook for this course.

7. ASSESSMENTS OF LEARNING

Students will be assessed on the following:

- Midterm exam #1 [14%]
- Midterm exam #2 [14%]
- Individual quizzes [12%]
- Group project [60%]
 - Project deliverable [35%]*
 - Presentation [15%]*
 - Peer Review [10%]*

Specific due dates and times can be found on Canvas. Late or missed submissions will not be accepted. Please contact the course instructor in advance if you need to coordinate special arrangements.

8. SCHEDULE OF TOPICS

Week	Module	Topics
1 - Sept 7	Health Information Systems: Introduction	<input type="checkbox"/> Health Informatics Overview <input type="checkbox"/> Creating your own application
2 - Sept 14	Health Information Systems: Data	<input type="checkbox"/> Data & coding systems <input type="checkbox"/> Healthcare data management
3 - Sept 21	Health Information Systems: Big Data	<input type="checkbox"/> Applications of big data & AI in healthcare <input type="checkbox"/> Case: Flatiron Health
4 - Sept 28	Project Management in Healthcare	<input type="checkbox"/> Project management fundamentals <input type="checkbox"/> Applications in healthcare
5 - Oct 5	Project Management Case Study	<input type="checkbox"/> Case: Island Health iHealth Implementation
6 - Oct 12	Midterm Exam #1 18:00-19:00 / Online Exam	<input type="checkbox"/> <i>Topics covered - Week 1 to 5</i>
7 - Oct 19	Healthcare Technology Implementation: Design & Build	<input type="checkbox"/> Clinical application usability factors <input type="checkbox"/> Interoperability in healthcare
8 - Oct 26	Healthcare Technology Implementation: COVID Innovations	<input type="checkbox"/> Case: BC & Ontario's Rapid COVID response
9 - Nov 2	Healthcare Technology Implementation: Deploy	<input type="checkbox"/> User acceptance <input type="checkbox"/> Clinical technology testing & sustainment
10 - Nov 9	Managing Healthcare Technology Change	<input type="checkbox"/> Managing healthcare technology change <input type="checkbox"/> Case Study: Provincial Health Change
11 - Nov 16	Access to Care & Data Privacy	<input type="checkbox"/> Health access & equity <input type="checkbox"/> Data privacy & security
12 - Nov 23	Midterm Exam #2 18:00-19:00 / Online Exam	<input type="checkbox"/> <i>Topics covered - Week 6 to 10</i>
13 - Nov 30	Final Presentations	<input type="checkbox"/> Student Presentations
14 - Dec 7	Final Presentations	<input type="checkbox"/> Student Presentations

Note: Should changes to this schedule occur, students will be informed through Canvas.

9. UNIVERSITY POLICIES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom.

UBC provides appropriate accommodation for students with disabilities and for religious observances.

UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. You are expected to complete all work on your own. Plagiarism will be managed as academic misconduct.

Details of the policies and how to access support are available on the [UBC Senate website](#).

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SPPH is committed to providing a positive education experience free from discrimination. If you have had an experience in this course where you feel unsafe, have been mistreated or have witnessed mistreatment, please let us know. If you want to raise this beyond the course instructor the School recommends the following. You may contact your academic supervisor, the education manager for your program or the Associate Director-Education. You may also report your concerns to the Faculty of Medicine Office of Respectful Environments, Equity, Diversity & Inclusion (REDI) at <https://mistreatmenthelp.med.ubc.ca/>. Both SPPH and the REDI Office have procedures in place for recording and acting on reports of mistreatment in the educational environment.

10. CLASS POLICIES

Class participation. SPPH 302 runs largely in a seminar format. As a result, active student participation is required to effectively deliver these sessions. A tremendous amount of value is brought to the class by the input from and shared experiences of the class.

Should virtual classes be required, students are requested to remain on video for the duration of class. Virtual classroom sessions will be largely discussion, exploration, and case study based.

The use of Chat GPT or other generative AI tools is permitted in this course. If you use generative AI to get ideas and/or partial answers for an assignment and/or to generate any text for a draft or final version of any part of an assignment, you must declare that you have used it. You must also add a couple sentences describing the extent to which it was used, and you must save any generated text from this tool in case it is requested. A TA or the instructor may ask you to provide the generated text in order to help with grading decisions.

Reference:

<https://ctl.ubc.ca/resources/assessment-design-in-an-era-of-generative-ai/communicating-with-students-about-generative-ai/>

11. LEARNING ANALYTICS

Learning analytics includes the collection and analysis of data about learners to improve teaching and learning. This course will be using Canvas, iPeer, and sli.do. Many of these tools capture data about your activity and provide information that can be used to improve the quality of teaching and learning. In this course, the teaching team plans to use analytics data to:

- View overall class progress & sentiments
- Collect class feedback to inform changes to the course journey
- Review statistics on course content being accessed to support improvements in the course
- Gauge participation in seminars, discussions, and group activities

12. COPYRIGHT

All materials of this course (course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the Course Instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline. Students are not permitted to record classes.