

**SPPH 302 001: Topics In Health Informatics**

Syllabus v02 2021-09-03

**1. COURSE INFORMATION**

Course	Location	Credits	Prerequisites	Times
SPPH 302: Topics in Health Informatics	BIOL 1000	3	None	Thursdays 17:00-20:00 Pacific Standard Time

**2. CONTACTS**

Course Instructors	Contact Details	Office Location	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.	Virtual	Students can arrange for virtual meetings as required.
Rachel Lai [Teaching Assistant]	Can be contacted through Canvas.	None	Virtual. Wednesdays from 7-8pm
Rajan Bola [Teaching Assistant]	Can be contacted through Canvas.	None	Virtual. Thursdays from 1-2pm

**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.

Seminars will generally follow the agenda below:

- Reading Quiz [10 minutes]
- Mini Lecture [20 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 labelled *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, 4, 7, 9, 11, 12, 13. 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, 5, 6, 8, 10. Students will be informed of any changes to the above schedule.

## 4. SCHEDULE OF TOPICS

Week	Module	Topics
1 - Sept. 9	Health Information Systems: <b>Introduction</b>	<input type="checkbox"/> Course Introduction <input type="checkbox"/> Health Informatics Overview <input type="checkbox"/> Creating your own application
2 - Sept. 16	Health Information Systems: <b>Data</b>	<input type="checkbox"/> Data & coding systems <input type="checkbox"/> Healthcare databases <input type="checkbox"/> Data Warehousing
3 - Sept. 23	Health Information Systems: <b>Big Data</b>	<input type="checkbox"/> Applications of Big Data in healthcare <input type="checkbox"/> Real World Evidence <input type="checkbox"/> Artificial intelligence <input type="checkbox"/> Case: Flatiron Health
4 - Sept. 30	Project Management in Healthcare	<input type="checkbox"/> Project management fundamentals <input type="checkbox"/> Applications in healthcare <input type="checkbox"/> Case: Island Health
5 - Oct. 7	Midterm Exam #1	<i>Topics covered - Week 1 to 4</i>
6 - Oct. 14	Healthcare Technology Implementation: <b>Design &amp; Build</b>	<input type="checkbox"/> Human factors engineering <input type="checkbox"/> Clinical decision support <input type="checkbox"/> Interoperability in healthcare
7 - Oct. 21	Healthcare Technology Implementation: <b>COVID Innovations</b>	<input type="checkbox"/> Case: Ontario Health West's Rapid COVID response
8 - Oct. 28	Healthcare Technology Implementation: <b>Deploy</b>	<input type="checkbox"/> User acceptance <input type="checkbox"/> Testing clinical technology <input type="checkbox"/> Clinical technology support & sustainment
9 - Nov. 4	Change Management in Healthcare	<input type="checkbox"/> Change management models <input type="checkbox"/> Managing healthcare technology change <input type="checkbox"/> Case Study: Provincial Health Change
10 - Nov. 11	Access to Care & Data Privacy	<input type="checkbox"/> Health access & equity <input type="checkbox"/> Patient rights <input type="checkbox"/> Data privacy & security
11 - Nov. 18	Final Presentations	<input type="checkbox"/> Student Presentations <input type="checkbox"/> Class Discussion
12 - Nov. 25	Final Presentations	<input type="checkbox"/> Student Presentations <input type="checkbox"/> Class Discussion

13 - Dec. 2	Midterm Exam #2 & Guest Speaker	<i>Topics covered - Week 6 to 10 Guest Speaker TBD</i>
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## 5. 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:

- 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.

## 6. 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

## 7. LEARNING MATERIALS

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

## 8. ASSESSMENTS OF LEARNING

Students will be assessed on the following:

- Midterm exam #1 [20%]
- Midterm exam #2 [20%]
- Weekly quizzes [10%]
- Group project [50%]

- ❑ *Final project deliverable [30%]*
- ❑ *Presentation [15%]*
- ❑ *Question & answer period [5%]*

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.

## 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](#).

## 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.

## 11. 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.