HIS9241/LIS9841 Interdisciplinary Issues in Health Information Science
Syllabus - Fall 2021

PROFESSOR:
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Virtual Office hours: By appointment.

Course website: OWL

CLASS TIME & LOCATION:
Classes will be primarily online, via Zoom, unless otherwise noted.
Classes are Tuesdays from 10:00 am – 12:30 pm Eastern Time.

Join Zoom Meeting
https://us02web.zoom.us/j/82366623148?pwd=WFRSNGJtYnkvVU5NcG9NdlQ4dTQ0UT09

Meeting ID: 823 6662 3148
Passcode: Anita

Overview

This course will provide an overview of issues in the creation, provision and use of information in the health care system. A focus will be on describing the 'actors' in the health area, their information behaviour, and consideration of how services provided by various information sources meet, or do not meet, these needs. We will also consider, taking a critical approach, emerging issues in health care generally and health information specifically, and how these influence and are influenced by broader ethical, social, political, and legal considerations.

Learning Objectives

At the end of this course, students should:
- have a basic understanding of the Canadian health care system, including the provision of health information at various levels;
- be able to describe the information seeking behaviours of the major stakeholders in the health system, including health professionals, policy makers, health administrators and patients/the public;
- for each stakeholder group, be able to identify the types of resources and services that would best meet their information needs;
- understand trends and issues in evidence-based health care, health informatics, health privacy legislation, knowledge translation, and health literacy;
- be able to critically evaluate and engage with not only health information policies, practices, and sources, but also some of the fundamental assumptions and ideas that underpin these;

Course Policies

Attendance: Students are reminded that attendance at and timely arrival to all classes – whether online or in person - is required unless accommodation has been pre-arranged for asynchronous online participation. Students needing to negotiate legitimate absences need to inform the instructor in advance in order to arrange for make-up work. **This may not be possible in the case of assignments designated for completion during class time.** In cases of emergency absences, students must contact the instructor as soon as possible afterwards.

Statement on Academic Offences: Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf

All required papers may be subject to submission for textual similarity review to the commercial plagiarism-detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

Support Services: Students who are in emotional/mental distress should refer to Mental Health@Western https://www.uwo.ca/health/mental_wellbeing/index.html for a complete list of options about how to obtain help.

Email policy: Student emails will be read and responded to within 48 hours of receipt, from Monday to Friday. Do not expect that emails will be answered at night or on weekends. Do not submit assignments by email unless specifically indicated by the instructor.

Readings: A significant amount of class time will be spent discussing issues in health care of relevance to health information professionals and scholars. Each week, a list of selected readings will be provided – some required and some suggested – that address the topic(s) to be covered the following week. The list will be posted to the course website with, where possible, a copy (for personal use only) of the reading, and/or a link to a website, and/or a call number or other instructions for obtaining the reading.

The *Western University Code of Student Conduct* applies to online behavior. Please review the Guidelines and Policies for Online Course Activity on the next page.

Guidelines and Policies for Online Course Activity

This course will run synchronously at our scheduled class time via OWL. Sessions will be recorded to capture the presenter's audio, video and computer screen. The audio recordings will only be accessible to students enrolled in the course. In general, we would like to record all full-class discussions so that students who may be unable to connect in real-time benefit from hearing what we talked about. Small/breakout group discussions will not be recorded.

Please use an updated version of your internet browser for ideal performance. Google Chrome is the preferred browser, although Collaborate provides support for the following:

Supported Browsers	Desktop	Mobile
Google Chrome[1]	Windows®, macOS, Ubuntu	Android
Firefox®	Windows, macOS	Not supported
Safari®	macOS 10.13+	iOS® 12+, iPadOS
Microsoft Edge® (Chromium)	Windows, macOS	Android, iOS
*Note: Support for **Internet Explorer** was dropped in 2019.*		

If you need technical help please contact the Western Technology Services (WTS) Help Desk. You may submit inquiries at ***jira.uwo.ca/servicedesk*** or call **519-661-3800** (Extension: **83800**).

Video & *Audio*

Turn on your video. It is helpful to be able to see each other, just as in an in-person class. However, if you have limited internet bandwidth or no webcam, or can't access an environment without a lot of visual distractions, it is ok to turn off your video.

Keep it clean. Don't share anything you wouldn't put up on the projector in class!

Mute your microphone when you're not talking. If you own headphones with a microphone, please use them. This may improve audio quality.

Be in a quiet place when possible. Find a quiet, distraction-free spot. Turn-off any music, etc. in the background. Close any apps on your device that are not relevant and turn off notifications. Mute other non-essential devices or leave them in another room.

Chat

Use the chat window for questions and comments that are relevant to class. If the main course chatroom is filled up with random comments, it will be difficult to sort through the information quickly to address student questions and concerns about the course.

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[1]If you use Chrome, please download an extension called "Desktop Sharing" (created by Blackboard), this will support your ability to share content when using Collaborate. Here is a link to the Chrome Web Store: https://rb.gy/rrwroy.

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Class Outline
(NOTE: this outline may be revised as course and student needs and preferences are identified)

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Class 1: September 14 - Interdisciplinary perspectives on health information production & use
- Introductions; course overview and requirements
- Overview of evidence-based health care

Class 2: September 21 - Health care in Canada; 'Evidence' cont'd: what is it, how is it used?
- Health Care in Canada
- Evidence-based health care – discussion

Class 3: September 28 - 'Evidence' cont'd: how do we find it?
- Introduction to MEDLINE & PubMed; overview of other databases and grey literature
- Searching & discussion

Class 4: October 5 - Health information and its users and uses (*DUE: CC1)*
- CC1 "Slam"
- Information needs and uses of patients, the public and policy makers

Class 5: October 12 - Technology and data in health care
- The role of technology/AI/Big Data in health and health care

Class 6: October 19 - Privacy issues in HIS
- Guest speaker

Class 7: October 26 - Mid-term recap & discussion (CC2 *DUE*)
- CC2 "Slam"
- Final questions on Panel presentations

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November 2 – NO CLASS – READING WEEK

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Classes 8, 9: November 9 & November 16 - Panel Presentations (2 per week)

Class 10: November 23 - Critically examining the role of media
- Discussion: the role of media in informing the public
- Press release exercise

Class 11: November 30 - Knowledge mobilization (paper outline DUE)
- Knowledge mobilization (KMb) primer - Moving evidence into policy and practice
- Small group KMb case studies – discussion and report-back

Class 12: December 7 - Course wrap-up (major paper DUE)
- Wrap-up and Discussion: Final chance to share what irritates you…
- Course evaluations

Class 13: December 14 - TBD

Policies & Procedures
Grading Policy

Thesis-based Graduate Programs submit grades as numerical marks according to the following scale set forth by the UWO School of Graduate and Postdoctoral Studies:

> 80% and above (A)
> 70-79% inclusive (B)
> 60-69% inclusive (C)
> Less than 60% - Fail (F)

The same grade scale will be used for all students, however MLIS students enrolled in the course should note that pass/fail cut-offs may differ. These students should refer to the MLIS Guidelines to the Grade Range in the MLIS Graduate Student Handbook.

Submission of Assignments
All assignments are to be submitted at the beginning of class on the due date. Late assignments will be deducted at a rate of 10% for every day that they are late.

Submit assignments to the course website using 8½ x 11" (letter) page size, in Word format – this will allow us to provide detailed feedback; use 11 or 12-point font and one-inch margins. Unless otherwise indicated, double space the main text (not references or footnotes). ***Do not submit your assignment by email unless you have received permission from the instructor***.

Citation style
All sources used in assignments should be cited in the text and listed at the end of the assignment on a separate page, following the American Psychological Association (APA) style, see https://www.lib.uwo.ca/files/styleguides/APA.pdf.

Assignment Overview

Assignment	Due (Class #)	Worth (% of final)
Class Participation	All classes	15%
Critical Commentary reports/slams	Report 1: Class 4 Report 2: Class 7	30% (15% each)
Panel Presentation	One of Classes 8 or 9	15%
Major Paper Outline	Class 10 or 11	15%
Major Paper	Two weeks after last day of class	25%

Grading and Assignment Descriptions

Class participation (15%)
What students get out of the course depends in large part on the quality of discussion in the class. The instructor, guest speakers and students should all benefit and be stimulated by the discussion in which we engage in each class. Students should participate as much as possible in all sessions. Thus, the designated readings for each week must be completed before class. A reading list will be provided with some identified as "required" and some as "background/optional" to serve as a guide to related literature. Your grade for class participation will be assessed on the basis of these contributions, including your participation as an audience member during the panel discussions (see below), small group discussions including the weekly covid topic groups, "CC Slams" (below), participation in our ongoing discussion about HIS as a discipline, including in VoiceThread, and evidence of your general preparation for class, including familiarity with required readings, contributions to discussions, and demonstration of respect for the ideas and feelings of others.

Critical Commentaries (each of the 3 assignments is worth 10%, due Classes 4, 7, 10) (30%)
During the course students will submit three brief reports, each of which will provide critical commentaries on a topic related to the course, in which a course reading is linked to current events. The basis of each report will be a required or optional reading from the reading list (or a related reading, with permission of the instructor), discussed in the context of a very recent (within the last month) journal, newspaper, magazine or blog article (online or print) selected by the student that relates to the course reading. Topics should be related to those covered in the preceding weeks of class (e.g., 1-3 for report #1, 4-6 for report #2 and 7-9 for report #3, including panel-related topics).

Commentaries are to be about 600-800 words, including an overview and synthesis of the two sources, plus the information outlined below. This is an exercise in writing concisely and with insight about theory, research and/or practice. Students will scan current (online or print) newspapers, magazines, blogs or other health-related publications (e.g., from NGOs, professional associations, etc.), in addition to course readings, to underscore the extent to which health and health care issues are a focus of public discourse as reflected in the broader media. This exercise also aims to help you develop the skills needed to communicate complex ideas clearly and in plain language for diverse audiences – a key principle for effective knowledge mobilization.

A good exemplar are pieces written for https://theconversation.com/ca (see for example: https://theconversation.com/police-encounters-reveal-a-mental-health-system-in-distress-142264). While these usually are a bit longer and cite more sources than required for the CC assignment, they provide the right mix of current happenings with academic scholarship in a reader-friendly tone and style that you should try to emulate for the CC.

Include the following when writing up your commentaries:
- What is the overall theme and what are the key ideas in the articles? There will often be many possible themes and key ideas. For you, from your perspective, what stands out as significant? How is it relevant to HIS?

- Why did you select these two readings – what brings them together, conceptually? Which arguments and what analysis on the key ideas did you find fit in most with your own ideas? Why? Did you disagree with any of the ideas presented? Why?
- Identify, where possible, the type of sources used by the author(s). For example, for a journal article, the author might have searched previous literature and/or conducted original research using study subjects; a journalist might have conducted interviews or commented on a major report that has been released. Comment on the degree to which you feel the author(s) accurately and objectively reflected their source materials.
- REFERENCE LIST (NOT INCLUDED IN WORD LIMIT): Use APA reference style, see https://www.lib.uwo.ca/files/styleguides/APA.pdf.

Assignments that merely summarize the readings are not appropriate – you need to provide some critical synthesis. You do not have to address all the points from the articles in a single summary. Indeed there will be cases where only one perspective will be appropriate. Don't bury yourself in details: reflect on what you have read, note down the important points you want to make, and proof-read and revise your writing to keep it concise. There are no right or wrong answers. This is to provide experience in communicating your ideas with precision and clarity, getting to "the bottom line".

CC "Slam" – in the class in which each CC is due, each student will be asked to very briefly describe their topic and answer these two questions:
- How does it relate to the course content so far/how is it an HIS issue?
- Why did you choose that particular topic? (or, what "irritated" you about it?).

You have 3 minutes (and you'll be cut-off at that time), so think carefully about what want to say. This is great practice for things like the 3-Minute Thesis, and your research "elevator speech".

Evaluation Criteria: Commentaries will be graded on the appropriateness of the articles selected (do they fit with one another?), the clarity and conciseness of your analysis and argument and evidence that you've thought about the issue enough to pull out key messages that have relevance to each other, and to HIS. Marks will be lost if sources are not identified or cited in the correct format, if no critical synthesis or relevance is provided, or if reports exceed word limits.

Panel Presentation (15%)

Two classes will be devoted to presentations and debates on a current issue in health, related to the course content. Each 'panel' will include 2-3 students, who will present an issue, as 'experts', to the rest of the class, which will act as a decision-making group. Suggested topics are below, but students may propose another topic, with approval of the instructor.

Format: each group will have ~60 minutes for the entire presentation and group discussion. They will work together to prepare and present a 10-15 minute introduction/background to the topic, including why it is an important HIS issue, then each student will present, for ~5 minutes, support for one "side" of the question or issue, or one aspect of the problem – they are the "experts" on the topic. The instructor will moderate, and the rest of the class will act as a decision-making group and will be able to question and engage in discussion with the "experts" to help them decide.

Readings: For each topic, background readings will be **provided by the students leading the panel** and augmented by the instructor. These should be posted on the course website at least 5 days before class.

Evaluation Criteria: The presentation will be graded for content, format and presentation style. All presenters should contribute equally in the development and presentation of the material. Criteria for evaluation are: demonstrating that the students have considered how best to present the issue, taking into account the decision-making needs of the audience in their selected scenario, and including, in a respectful way, differing perspectives and opinions; that the reading(s) have been judiciously selected to prepare the rest of the class for the discussion; and that the conduct of the panel flows in such a way as to ensure that the class can engage meaningfully with the issue.

Suggested Panel Topics/Scenarios (one per group):
1) Primary health care (PHC) indicators in local health care teams
Scenario/Question: Family Health Teams (interdisciplinary teams of health care providers that provide primary health care in communities - see http://www.afhto.ca/) are being asked by government to collect clinical data regarding their services and their patient outcomes that align with newly recommended PHC indicators. A group of leaders representing local FHTs has asked experts in the area to tell them the pros and cons of agreeing to collect this information – how is it collected? Are new resources, tools or technologies required? Will there be benefit to them and their patients in collecting PHC indicators? If so, which ones? What is the best current evidence on this issue?
Background presentation should include an overview of "health indicators" (in general) – what are they, how are they collected (by and from whom), and how are they used in different parts of the health system? What, specifically, are "primary health care (PHC)" indicators? What are they used for and why? Who collects them and how? [HINT: the Canadian Institutes for Health Information (CIHI) has a lot of good background material on indicators in general, and PHC Indicators specifically – e.g., http://www.cihi.ca/CIHI-ext-portal/internet/EN/TabbedContent/types+of+care/primary+health/cihi006583]
Approach: After a 10-15 minute background primer (co-presented by the students), each student will champion one "side" or aspect of the issue – e.g., that it is important to collect PHC indicators, why and how to do it; another pointing out the potential costs or other considerations that might demand caution, etc. Each should provide existing evidence (or lack of evidence) for meaningful impacts (at the system, organization or individual patient level) of collecting and using these data. Keep in mind who your audience is, and what they want to know.

2) Patient decision aids for shared decision-making regarding cancer screening
Scenario/Question: Shared decision-making between patients and health care providers has been promoted as a key aspect of patient-centred care, and as way to improve patient acceptance of health interventions, including improving treatment compliance. One method to improve shared decision-making is the use of specific tools, often called patient decision aids (see http://decisionaid.ohri.ca/). The board of directors of a regional advocacy group for cancer prevention is deciding whether to promote the use of decision aids – by funding their

dissemination to area clinical practices, health units and related websites – related to helping people (both men and women) make decisions about screening for various kinds of cancers. Background presentation should include an overview of shared decision-making and patient decision aids – what are they? What formats do they take (web and non-web; interactive vs "on your own")? How have they been used?

Approach: after providing a 10-15 minute background primer (co-presented by the students), students will champion one "side" or aspect of the issue – e.g., supporting the dissemination and implementation of cancer screening patient decision aids, or suggesting caution and to defer the decision, etc. Bring recent best evidence to your arguments – have decision aids been shown to improve patient outcomes (what kinds of outcomes?)? What do patients think of them? Are they appropriate for all patients? What do health care providers think of them? Do we know anything about their cost-effectiveness? Keep in mind who your audience is, and what they want to know.

3) Health information terminologies and classifications in electronic health record systems

Scenario/Question: As part of the provincial e-health strategy, a group of policy analysts at the provincial ministry of health are trying to develop data coding standards for health records. They need to understand the difference between clinical terminologies and medical classification systems. Experts have been asked to brief them on the various formats and systems used to describe health information in standardized health records systems.

Background presentation should include an overview of the different nomenclatures and formal coding systems used to describe different kinds of information collected in health settings and systems. This will include terminologies for capturing clinical information about individual patients as well as classification systems to identify diseases and other health conditions and events. What are the different systems used for? How do they work?

Approach: after providing the 10-15 minute background primer (co-presented by the students), presenters will discuss clinical terminology coding systems (hint: use SNOMED-CT as the main example), as opposed to classification systems (hint: ICD-9 and/or ICD-10). What is each system used for? How are data coded in each? Can they be cross-referenced / mapped in EMRs? What factors should the policy analysts consider in deciding which one to embed in the proposed standard EMR, or should both be used? What are the costs of this? Note that this is less a 'debate' than presenting clear information on two different approaches to health information management. Keep in mind who your audience is, and what they want to know. [This is best for a 2-student group.]

4) Citizen engagement for public health planning

Scenario/Question: The local public health unit is planning its strategy for combating West Nile virus, which it plans to implement in ~6 months. While they have ways to gather and synthesize best evidence regarding approaches to prevent the disease, they are concerned that most prevention efforts rely on how the general public understands the issue, and whether they take preventive measures – they would like to understand how the public views this issue, and how they can be encouraged to take it seriously. The medical officer of health and her senior staff have invited experts to speak about various approaches to citizen engagement to get input from the public.

Background presentation should include an overview of the concept of public/citizen engagement in health planning (e.g., see http://www.chsrf.ca/PublicationsAndResources/ResearchReports/CommissionedResearch/11-03-09/3b6b5648-d03f-

) – what different approaches exist? When and why is it used, and what does it yield? Has it been used in public health planning (or in anything like the current case?). Approach: after providing the 10-15 minute background primer (co-presented by the students), each student will champion one aspect or "side" of the issue – e.g., supporting the use of citizen engagement (and suggesting a specific approach or approaches for this issue), suggesting not to use this technique, some middle ground, etc. Bring recent best evidence to bear in your arguments – has citizen engagement been shown to improve health behaviours or outcomes, or to make for more effective plans or policies? What do people think of them? Are they appropriate for any health issue? Do we know anything about their cost-effectiveness? Keep in mind who your audience is, and what they want to know.

5) Health literacy programming for Northern Indigenous communities
Scenario/Question: Senior leaders from the Public Health Agency of Canada have invited experts to advise them on whether to implement health literacy (HL) programming for Indigenous people living in rural/remote/Northern communities, and/or on Reserves.
Background presentation should include an overview of health literacy, including what it means, how it relates to other forms of literacy, and what kinds of programs typically are used for different settings, audiences and purposes (e.g., see https://www.cpha.ca/resources?topic=29).
Approach: after providing the 10-15 minute background primer (co-presented by the students), each student will champion one "side" or aspect of the issue – e.g., supporting the implementation of health literacy programming (and recommending a specific approach, if appropriate), not supporting this, for reasons to be provided, or some middle ground. Bring appropriate evidence (or lack of it) to bear – have HL programs been rigorously tested? Using what outcomes? Have specific approaches (online or other) been tried for the kinds of settings/communities of concern to this group? What special considerations are there for these groups and settings? Keep in mind who your audience is, and what they want to know.

Students may suggest other scenarios, and use those, with the approval of the instructor, e.g.:
● Social media as a tool for public health communication (e.g., from governments and/or Public Health Units to the public, from researchers to practitioners and/or directly to the public, etc.)
● Peer Educators/Lay Health Educators/Patient Navigators
● Other health IT (incl consumer health informatics) applications in specific settings
● Clinical information services/libraries/librarians
● Other?

Outline of Major Paper (15%) DUE: Class 10 or 11
and Major Paper (25%) DUE: Two weeks after the last day of class

Major Paper Outline – 3 pages (double-spaced, including references)
(Read the description of the Major Paper first).
In the outline, students are expected to briefly introduce the topic (including scope), provide some definitions of the key concepts, describe some themes you expect to explore and demonstrate that you have read some articles in the area.

Evaluation Criteria: The outline will be graded on the appropriateness of the articles selected, the

clarity and conciseness of your plan and evidence that you've engaged with the issue enough to identify key themes relevant to your topic in the context of HIS. Marks will be lost if sources are not identified or cited in the correct format, or if the outline exceed page limits.

Major Paper

The major report will allow students to explore, via literature review, an issue of interest to them in a 12-15 page (double-spaced, including references) paper. Students are encouraged to discuss their topic with the instructor for feedback regarding scope and approach. Report topics can focus on practical issues in health information provision and use (e.g., developing information literacy workshops for clinicians, new consumer health informatics applications, etc.), or on exploration of emerging issues in the field of health information broadly (e.g., health information privacy legislation; open access publishing models in the medical literature, etc.); or combinations of these. A critical lens is encouraged, and the identification of clear HIS-specific research gap(s), articulated into research questions, with, optionally, some ideas on how you might address these n a research study.

Evaluation Criteria: The paper should:
- introduce the topic;
- provide definitions of the key concepts employed (with appropriate citations);
- describe why this is an important HIS topic, what particular aspect you plan to explore, & why;
- demonstrate that you have conducted a reasonable search of relevant literature (this need not be exhaustive);
- demonstrate critical thought into the topic including consideration of potential implications for theory, research and/or practice in specific areas of relevance to the course content, or to the field of health information science more broadly.

Suggested Structure
(this is a guideline only; it is not essential that you follow the structure exactly as outlined below, but these are the elements that you should include in your paper)

Introduction - Provide a context or background for the topic and its significance. Define and describe key concepts. State the purpose of the paper. Give only pertinent references and do not include data or conclusions from the work being reported. Make sure to appropriately cite all sources.

Literature search method (very brief) - what sources were searched, how and (briefly) why

Results of Literature Review: Describe the main points arising from your review, compare and contrast your findings with other relevant studies on the topic. Emphasize the new and important aspects of your work and the conclusions that follow from them.

Discussion - Explore the implications of the review findings for theory, research and/or practice in specific areas of relevance to the course content, or to the field of health information science more broadly. Emphasize only the most important observations. Don't repeat in detail data or other material given in the Introduction or the Results section. Make sure to appropriately cite all sources.

Conclusions - If relevant, state any conclusions that you feel arise from your interpretation of your review.

References – list of sources cited (using APA referencing style, see above)