

SYLLABUS

HRM 736: Design Innovation for Health System Challenges

Winter 2018, January 9 to April 18, 2018,

Wed 9:00am-12:00pm, Room HSC 4H1

I. COURSE OVERVIEW

Instructor: Dr. Hsien Seow, PhD

Associate Professor, Department of Oncology;

Canada Research Chair in Palliative Care and Health System Innovation;

Office hours: immediately following class or by appointment. seowh@mcmaster.ca

Course Description: This course explores the complex challenges existing within our health system and teaches a design-innovation framework to identify solutions. It uses the aging population and increasing advanced chronic disease as the main case study. Initially, the course examines how major health care services are organized and financed in Ontario, Canada, how this affects care, and what are the strengths, challenges, and opportunities in the current system. The course then applies design innovation framework to generate system-level solutions. Students will work in groups to identify a problem, learn about its root causes through interviews, design a solution through analysis, and present a prototype.

Intended Audience: This course is an interdisciplinary graduate course (Masters and PhD from all disciplines) including but not limited to HRM, MPH, Nursing, Health Policy PhD, Global Health, Engineering, etc.

Course Prerequisites: None.

Course Objectives

- To understand how the current complexities within Ontario's health system create systemic challenges for patients, providers, and administrators.
- To understand the value and stages of the human-centered design process.
- To apply this process to generate solutions to current health system issues.

Course Format: This is an interactive and applied course, where students learn by doing. Classes will be taught using a combination of strategies, including lectures, discussions, small group activities, interviews, and a course-long group project to understand existing shortcomings and design potential solutions. Each session will help students take a step in the cycle of design innovation, from scoping, learning, designing, and building, and culminating into the final group competition to propose a solution to a real-world problem.

Course Textbook

Mandatory Textbooks:

1. “The Tao of Innovation: Nine Questions Every Innovator Must Answer”, by Teng-Kee Tan, Hsien Seow, and Sue Tan Toyofuku, Imperial College Press, © 2015. Available at McMaster bookstore! Or on amazon.ca or chapters.indigo.ca or e-book (www.store.kobobooks.com OR <http://www.worldscientific.com/worldscibooks/10.1142/p985>).
2. “The Field Guild to Human-Centered Design” by IDEO.org. First edition © 2015. Available online for free as a PDF on course website (i.e. avenue to learn). Or can purchase a hardcopy from <http://www.designkit.org/resources/1>.

Other readings: Other PDF readings will be available online on course website.

II. COURSE OUTLINE

Course Sessions At-a-Glance

#	Date	Room	Topic	Assignments Due <i>before</i> class starts
1.	Wed Jan 9, 2019	HSC 4H1	Intro to Course; View of the Future & Laying Big Bets	
2.	Wed Jan 16, 2019	HSC 4H1	Pain points in the Homecare Sector	Mini-assignment 1
3.	Wed Jan 23, 2019	HSC 4H1	Pain points in the Physician Sector	Mini-assignment 2
4.	Wed Jan 30, 2019	HSC 4H1	Pain points in the Hospital Sector	Mini-assignment 3
5.	Wed Feb 6, 2019	HSC 4H1	Innovation Strategies	
6.	Wed Feb 13, 2019	HSC 4H1	Business Models	
7.	Wed Feb 20, 2019	HSC 4H1	Intro to Human-Centered Design	
8.	Wed Feb 27, 2019	HSC 4H1	Develop Interview Guide (and interview)	Midterm Paper
9.	Wed Mar 6, 2019	HSC 4H1	Download	
10.	Wed Mar 13, 2019	HSC 4H1	Insights	Mini assignment 4 (due end of class)
11.	Wed Mar 20, 2019	HSC 4H1	Ideate	
12.	Wed Mar 27, 2019	HSC 4H1	Prototype (and re-interview)	
13.	Wed Apr 3, 2019	HSC 4H1	Iterate	Mini assignment 5 (due end of class)
14.	Wed Apr 10, 2019	HSC 4H1	Purposeful Innovation	
15.	Wed Apr 17, 2019	HSC 4H1	Design Competition: Final presentations	Final paper Group presentations

Preparing for the course: Background readings

While a comprehensive understanding of the Canadian or Ontarian health system is not expected, basic knowledge of the governance, financing, organization, and delivery arrangements will be important background for the course. If you are not familiar with these basic arrangements, you should familiarize yourself with them before the course. The following readings are suggested as a guide:

Canadian Health System

1. Steven Lewis. International Health Care System's Perspectives Article. A System in Name Only—Access, Variation, and Reform in Canada's Provinces. *New England Journal of Medicine*. February 5, 2015. p. 497-500.
2. Health Canada. [Canada's Health Care System](http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php). 2011. Available at: <http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2011-hcs-sss/index-eng.php>
3. Gregory P. Marchildon. *Canada. Health System Review*. Health Systems in Transition Series. European Observatory on Health Systems and Policies, a partnership hosted by World Health Organization. Vol. 15. No. 1. 2013.

Ontario Health System

4. Ontario Ministry of Finance. Commission on the Reform of Ontario's Public Services. *Public Services for Ontarians: A Path to Sustainability and Excellence*. [Chapter 5. Health](#). 2012. Read pg 143 to 173. Available at: <http://www.fin.gov.on.ca/en/reformcommission/chapters/ch5.html>
5. Institute for Competitiveness and Prosperity. Building Better Health Care. Policy Opportunities for Ontario. Working Paper 20. April 2014.
6. Lavis JN, Mattison CA. Chapter 1. Introduction and overview. In Lavis JN (editor), *Ontario's health system: Key insights for engaged citizens, professionals and policymakers*. Hamilton: McMaster Health Forum; 2016, p. 15-34.

III. STUDENT EVALUATION AND ASSIGNMENTS

Overview of Assignments, Grading, and Due Dates

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|---|-------|---------------------------|
| a) 5 Mini Take-Home Assignments | (25%) | - 5 assignments x 5% each |
| b) Midterm project | (25%) | |
| c) Final group project report | (20%) | |
| d) Final group presentation of solution | (20%) | |
| e) Class participation | (10%) | |

Details about assignments

- a) 5 Mini-Innovation Assignments
Assignments will be posted on Avenue. The assignments are:

#1: Homecare assignment: Upon completing the readings, students should complete the assignment, similar to an open-book take-home quiz, and submit it at the beginning of class. The assignment will review the organization, delivery, and financing of homecare.

#2: Physician assignment: Upon completing the readings, students should complete an assignment to be submitted at the beginning of class. The assignment will review the organization, delivery, and financing of primary care reform.

#3: Hospital assignment: Upon completing the readings, students should complete an assignment to be submitted at the beginning of class. The assignment will review the organization, delivery, and financing of hospitals.

#4: Generate a list of Insights: Upon completing interviews and the downloading process, students will work in groups to identify key quotes or key points that lead to an insight. Each *group* is responsible for generating five insights to be handed in. The grading will be as a group (groups to be assigned).

#5: Generate a list of potential refinements based on new feedback: Upon completing second round of interviews, students will need to identify refinements to their original prototype idea. Each *student* is responsible for generating five insights or comments that could inform the next iteration to the prototype. A comment can be a validation or a challenge to a prior assumption.

b) Midterm project

The mid-term project will require students (individually or with a partner) to write a 5-page report on either:

- Select an innovative healthcare company or product. Describe the company/product, the pain point it addresses, its view of the future, its innovation strategy, its business model canvas, and a final assessment of how innovative it is.
- Compare the organization, delivery and financing of homecare, hospital, and physicians of Ontario to another province or country.

c) Final group project report

The final report is focused on the pain point that the group has chosen. The report should summarize the innovation activities including, the pain point, the environmental analysis, the key learnings from the interviews, the key insights generated, the design solution that arose from the insights, and a description of the final prototype. One report is submitted per group.

d) Final presentation

Beyond the final group project report of the solution, each group is responsible for presenting their solution to a panel of judges as part of the design challenge. As part of their presentation, they will need to present key elements of their final report. Just as importantly, they also need to create a visual representation of the experience journey with and without the solution implemented. The visual representation can be a skit, video, storyboard, or other creative medium that will showcase how the solution impacts the intended stakeholder(s), such as patient, provider, administrator or system. The grade is as a group

e) Class participation

Actively participating in class discussions and in group activities is essential to learning. Participation includes answering questions, posing questions, being actively involved in group assignments, doing assigned readings before class so as to be prepared to advance the discussion. It also means not missing class. Missing more than 2 will be detrimental to your grade. See Attendance Policy in Section IV. Class participation grade will be informed by peer evaluations (within each assigned group).

IV. COURSE POLICIES

Syllabus is subject to change. The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. Updated versions will be posted on course website. Students are responsible for finding out about announced changes if they miss class. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check his/her McMaster email and course website weekly during the term and to note any changes.

Late assignments. Assignments are due at the beginning of class or day/time indicated above. Late assignments received within 24 hours of the due date will be docked 5% of the grade assigned. Assignments received between 24 and 48 hours will be docked 10% after which late 5 assignments will no longer be accepted. If you anticipate having problems meeting these deadlines, please contact me before the assignment is due to discuss your situation.

Academic Integrity. You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>. The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Attendance Policy. Due to the interactive nature of the course, particularly the group design challenge, regular attendance is crucial to your success in this course and is expected of all graduate students. Each session builds on the previous one to develop learning and skills. Attendance is incorporated into your participation grade, which is a substantial portion of your final grade (10%). Non-attendance for more than 2 sessions will lead to a failing grade.

The revised HRM Program attendance policy (approved by GPCC, March 10, 2015) and is the minimum requirement for the HRM Program; students should refer to the individual course attendance policy in case there are additional course requirements re: attendance. The HRM Program Attendance Policy includes the following:

- Any absence must be due to a reasonable excuse that is exceptional and out of the control to some extent of the student (illness, death in family, special exams etc).
- One absence from a class with a legitimate excuse is reasonable, 2 may be acceptable at the discretion of the instructor, but if you miss 3 or more classes you will not obtain credit for the course. You will be required to withdraw from the course before the last drop deadline or you will receive an 'F' in the course.
- Attendance is considered in the assignment of participation grades. In cases where participation is credited for each session, you will normally receive 0 for participation for any day you are absent.