Health Sciences 4PA3: Global Health Innovation

Course Outline

Instructor  Dr. Ryan E. Wiley (Ryan)

Contact  rwiley@shifthealth.com
wileyre@mcmaster.ca
416.902.4084 (mobile)
416.646.7642 (Toronto office)

Sessions  Mondays, 1430 to 1720
MDCL-3016

Office Hours  By appointment

Overview and Learning Objectives

Welcome to Health Sciences 4PA3: Global Health Innovation. This senior-level seminar builds on the pedagogy, principles and techniques in learning self-efficacy nurtured in foundational inquiry courses. We will engage thematically with urgent global health issues in order to:

1. Provide students with a political, social, economic and cultural context in which to consider critical questions pertaining to health beyond Canada’s borders and/or in resource-challenged settings; and
2. Refine fundamental skills in multidisciplinary scholarship (inquiry, hypothesis-generation, investigation, critical appraisal and synthesis).

The learning objectives of this course are three-fold:

1. To examine health through the lens of innovation and interrogate the systemic considerations that govern the genesis, development and adoption of health innovation in low- and middle-income countries (LMICs);
2. To challenge and build upon students’ biomedical knowledge by rigorously applying interdisciplinary perspectives (from the health sciences, social sciences and humanities) to a complex healthcare topic; and
3. To enrich fundamental competencies in self-directed learning, teamwork, project management, communication and scholarship.

Premise and Format

Conquering the greatest health challenges the world faces—the debilitating AIDS and malaria pandemics, the appalling state of maternal-child health, the dramatic rise in cardiovascular and metabolic disorders—is ultimately predicated on innovation. Indeed, the billions of dollars that government agencies, the private sector and charities/humanitarian organizations spend on global health innovation annually attests to the inexorable drive to bring new ideas to bear on our most vexing global health problems. Notwithstanding this shared resolve and unprecedented effort, the pace of progress remains disappointingly slow: promising solutions from the industrialized world are not reaching the populations that need them quickly enough, while innovators from LMICs remain marginalized by systems ill-equipped to nurture and translate creativity into practical results. It is becoming increasingly clear that the assumptions on which the system of innovation in the West is built must be reinvented to ensure that solutions fulfill the technological, social and economic imperatives that underpin health innovation in the developing world.

Predicated on the inquiry model’s belief in student ownership of and priority in a shared learning project, this course will be driven by the questions students will ask within the fertile domain of global health innovation. In groups of three or four, students will dedicate much of the semester to articulating and developing a substantive inquiry question through insightful and incisive research (primary and/or secondary). Beginning with the identification of an innovative technology or idea offering potential for global health impact (e.g. drawing on projects funded by the Bill and Melinda Gates Foundation’s Grand Challenges in Global Health), groups will ultimately develop and present proposals defending an evidence-informed approach to addressing the salient technological, social and economic considerations that will predicate effective translation of the innovation to populations in greatest need. It is not expected that the identity of selected inquiry topics will remain assiduously fixed throughout the term. On the contrary, each question should be viewed as a temporary impetus
for further learning; as you explore new territory and engage with new knowledge, you will elaborate new questions, revisit old ones and see the trajectory of your research evolve. The caveat, of course, is that your inquiry strategy must be sufficiently robust, coherent and disciplined to permit an intelligent—and concrete—synthesis by semester’s end.

In the interest of cultivating a foundational understanding and language of global health innovation and creating a platform for discussion and inquiry, we shall spend time together reflecting on what we mean by the “innovation system” and considering three integrated themes/concepts intrinsic to global health: (i) justice; (ii) bridging boundaries; and (iii) health as both a casualty and driver of social and economic forces. Weekly sessions will encourage informal, seminar-style discussion framed by selected readings, case studies and questions—and will benefit from contributions from guest facilitators. Our remaining sessions, with the exception of the presentation/discussion of group projects at three points throughout the semester, will be deliberately impromptu. We shall meet to discuss issues, reflect on our progress and harness new opportunities for learning; a session agenda, should one exist, will be initiated by students.

As the “instructor”, my approach will bear little resemblance to “instruction”. I am here to facilitate, support, enable, advise, monitor, nudge—but I will not tell you what to do or what the answer is (though I will rescue you before you steer perilously off course). I am also here to help you navigate and find purchase with the intimidating volume of complex information at your disposal. Your job is to identify and communicate what you need from me.

Measurement, Deliverables and Outcomes

This course will involve three key evaluation milestones:

- **25 September** — *Project Initiation*—Groups will have ~20 minutes to introduce and discuss their selected innovation and explain the global health priority to which it might make a transformative contribution.
- **6 November** — *Progress Update*—Groups will have ~30 minutes to present their progress, solicit feedback from peers, and discuss their strategy as they prepare their final deliverable.
- **24 November** — *Final Deliverable*—Each group will submit a succinct but substantive 10-page proposal (due 24 November) and facilitate a 50-minute in-class discussion explaining an approach to translating the selected innovation to target populations in LMICs.

Responsibility for evaluation will be shared by the instructor and your peers:

1. **15%**  
   - Project Initiation—100% instructor
2. **15%**  
   - Progress Update—100% instructor
3. **30%**  
   - Final Presentation—50% instructor, 50% peer
4. **30%**  
   - Final Proposal—100% instructor
5. **10%**  
   - Intra-group Evaluation—100% peer

Statement on 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](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.
Statement on Intra-course Modifications

The instructor, program and the 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. If modifications become necessary, reasonable notice and communication with the students will be given. Students will be provided with an explanation and an opportunity to comment. It is the responsibility of the student to check their McMaster email and the course website/LearnLink weekly during term. Any significant changes will be made in consultation with the BHSc Assistant Dean.

Class Schedule

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<tr>
<th>Date</th>
<th>Topic/Deliverable</th>
<th>Notes</th>
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<tbody>
<tr>
<td>11 September</td>
<td>Introduction: What is innovation?</td>
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<tr>
<td>18 September</td>
<td>Seminar Discussion: Understanding the Challenge of Innovation in the Developing World</td>
<td>Readings can be retrieved via the course Dropbox folder</td>
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<tr>
<td>25 September</td>
<td>Project Initiation: Discussion of Selected Innovations</td>
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<tr>
<td>2 October</td>
<td>Guest Seminar Delivering Global Health Programmes, Services and Innovations: Practical Considerations</td>
<td>Date to be confirmed</td>
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<tr>
<td>9 October</td>
<td>Thanksgiving Break</td>
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<tr>
<td>16 October</td>
<td>Independent Study</td>
<td>Tutorials and informal meetings to be scheduled as needed</td>
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<tr>
<td>23 October</td>
<td>Guest Seminar and Proposal Development Workshop Health Equity, Social Justice and Gender: Global Health Innovation Priorities and Principles</td>
<td>Date to be confirmed</td>
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<tr>
<td>30 October</td>
<td>Guest Seminar Understanding the Role of Industry in Global Health Innovation</td>
<td>Date to be confirmed</td>
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<td>6 November</td>
<td>Progress Update</td>
<td>15-minute presentations (informal) followed by 10 minutes of discussion</td>
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<td>13 November – 20 November</td>
<td>Current Topics in Global Health Innovation</td>
<td>Readings/triggers to be selected by student facilitators</td>
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<td>24 November</td>
<td>Submission of Final Proposals</td>
<td>10 single-spaced pages (excluding references and appendices) to be submitted via LearnLink by noon</td>
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<td>27 November</td>
<td>Presentation of Final Proposals</td>
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<tr>
<td>4 December</td>
<td>Presentation of Final Proposals (if needed)</td>
<td>30-minute presentations followed by 20 minutes of discussion</td>
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Given the highly collaborative nature of this course, deadline exceptions or extensions will not be entertained.