

**UNIVERSITY OF MICHIGAN  
SCHOOL OF MEDICINE  
DEPARTMENT OF LEARNING HEALTH SCIENCES**

**LHS 622  
Learning Cycle Capstone  
Spring/Summer 2024**

<b>CREDIT HOURS</b>	3 credits
<b>PRE-REQUISITES</b>	Completion of LHS 621; Graduate standing or permission of instructor
<b>CLASS SCHEDULE</b>	Mondays 1-4pm
<b>LOCATION</b>	Taubman Health Sciences Library Room 5320
<b>FACULTY</b>	Cheryl A. Moyer, PhD, MPH 231 Victor Vaughan Bldg 1111 E. Catherine Street Email: <a href="mailto:camoyer@umich.edu">camoyer@umich.edu</a> (you will receive a reply to your email inquiries within 48 hours) Cell Phone: 734-417-3116 (OK to text) Office hours: by appointment
<b>COURSE WEBSITE</b>	<a href="http://canvas.umich.edu">http://canvas.umich.edu</a>

**COURSE DESCRIPTION**

Students will reflect upon concepts learned in HILS coursework – specifically focusing on the Learning Health System – to explore the issues, opportunities, and challenges associated with implementing Learning Health Systems in low-resource settings, both domestically and globally.

**COURSE OBJECTIVES**

By completion of the course students will be able to:

1. Describe some of the most influential organizations in global health, and how such organizations impact the availability and quality of health-related data.
2. List potential sources of data related to global health topics.
3. Articulate the different ways a setting may be considered “high resource” vs “low resource.”
4. Describe how the essential elements in a learning health system may need to be adapted for a low-resource setting.
5. Demonstrate knowledge of population health informatics, including disease surveillance, monitoring of community health, assessment of social and behavioral determinants of health, and geographic information systems.
6. Assess how existing health inequities affect population-level health, individual health, and healthcare delivery systems with methods grounded in an awareness of the multilevel factors contributing to such inequities.
7. Give examples of successful learning health systems in low-resource settings.

8. Demonstrate knowledge of how to assess multilevel determinants of health and health care disparities when designing studies.
9. Demonstrate the ability to critically analyze and assess available scientific evidence from peer-reviewed articles, systematic reviews, meta-analyses, and gray literature to identify novel LHS questions and to judge the applicability of the evidence to a local care setting.

(These objectives are reflective of the AHRQ Competencies 3A, 5D, 6D, and 7C.)

### **TEACHING METHODS**

This course will be taught using multiple methods, but will **rely heavily on student engagement** to ensure rich discussions and iterative learning. This course will utilize guest lecturers from disparate fields, providing students with unique perspectives across an array of topic areas. Typically, the first half of each class will utilize more traditionally didactic formats, including structured lectures. The second half of each class will likely be spent in discussion related to assignments and readings.

**Please note that the syllabus is a progressive document which will be updated frequently throughout the semester. Please plan to check in at least weekly to review any changes in upcoming work.**

### **GRADING AND EVALUATION**

Grading will be based on five evaluation methods. They are detailed below:

Assignment #1 (reflection paper on core elements of LHS), due May 20	<b>10 points</b>
Assignment #2 (class presentation on selected location), due June 3	<b>10 points</b>
Assignment #3 (reflection paper on policy in LHS), due June 24	<b>10 points</b>
Assignment #4 (reflection paper, LHS commentary idea), due July 8	<b>10 points</b>
1 in-class summary of readings and leading discussion, varying dates	<b>10 points</b>
Final assignment (LHS Commentary); in-class presentation, due August 12	<b>10 points</b>
Final assignment; final 800-word commentary, due August 16	<b>30 points</b>
Class participation	<b>10 points</b>
<b>TOTAL</b>	<b>100 points</b>
Extra credit: Additional in-class summary of readings and leading discussion	<b>10 points</b>

### **GRADING POLICIES**

No late assignments will be accepted without penalty. If the assignment is not turned in by the due date and time, the student will lose two points for every day that the assignment is late. For example, if the assignment is worth 10 points and is turned in one day late, the maximum number of points for that assignment will be 8/10. Two days late will result in the maximum number of points being 6/10, and so on. Graded assignments will be returned to students via hard copy, email or through Canvas.

Final grades will be accessible through Wolverine Access; grades for each assignment will be posted through the Canvas course site. Overall course grades are posted within 72 hours of when the final course assignment component (typically the final course project report) is due. The course grade will be a letter grade (A – D, F) following the weighting described below. Grades will be assigned using this conversion scale:

A+ 97-100  
A 93-96  
A- 90-92  
B+ 87-89  
B 83-86  
B- 80-82

C+ 77-79  
C 73-76  
C- 70-72  
D+ 67-69  
D 63-66  
D- 60-62  
F <60

Regular feedback on graded assignments and timely resolution of any grading concerns is helpful for student learning and an overall positive experience. Students are encouraged to discuss any assignment grade concerns with the instructor within 48 hours of the grades being posted on Canvas. Similarly, any concerns and grievances related to the overall course grades should be raised by contacting the faculty of record within 48 hours of the course grades being posted on Wolverine Access. For this course, the grade dispute arbitration will happen within the Health Infrastructures and Learning Systems (HILS) program. After initial discussion with the faculty of record for the course, there is an opportunity for a second look by another HILS faculty member with appropriate expertise for resolving grade disputes. If the student and faculty are not able to come to an agreement about the grade dispute, the HILS program director or assigned designee will adjudicate the dispute. If the student is still dissatisfied after adjudication by the HILS program director or assigned designee, the dispute will escalate to the Conflict resolution office at the Medical School.

Please note that unless otherwise noted and agreed on, all assignments are individual, and students are expected to work independently of each other. Please review University and School statements regarding violations of honor codes, plagiarism and other academic improprieties.

### **REQUIRED TEXTS AND OTHER MATERIALS**

Readings will be made available through Canvas, including journal articles, reports, chapters, protocols, etc. that are relevant to the topics of discussion. The expectation is that students will read the posted readings before coming to class. **As mentioned, the second half of class will be based on the discussion of the readings, and the instructor may ask students to present the reading, reflect on the reading, or lead a discussion about the reading. Thus coming prepared is paramount to the student's own learning and the learning of others.**

### **COURSE POLICIES**

#### **Attendance**

Students are expected to attend all scheduled synchronous class sessions and will only be excused for extenuating circumstances. These circumstances shall be discussed with the instructor prior to missing class. Please notify the instructor by noon on Monday if there is to be an absence. Students are expected to make up any work that is missed. In addition, students are expected to view all online, asynchronous material.

#### **Expectations**

This is a small class; therefore, discussions will be the key to learning during the course. There will be readings from supplemental sources that will prepare the student for discussions during

class. Much of research is problem solving; therefore, students will focus on difficult scenarios and questions that present challenging approaches.

## **INSTITUTIONAL POLICIES**

### **Academic Integrity of Students**

The academic community, like all communities, functions best when its members treat one another with honesty, fairness, respect, and trust. Your instructors expect students to work and study together to foster learning and understanding of the material. However, direct copying of homework, copying of homework from existing solutions, cheating on an exam, and other conduct that violates the academic integrity and ethical standards of the Rackham Graduate School community cannot be tolerated and will result in serious consequences and disciplinary action.

All written submissions must be your own, original work. Original work for narrative questions is not mere paraphrasing of someone else's completed answer: you must not share written answers with each other at all. At most, you should be working from notes you took while participating in a study session. Largely duplicate copies of the same assignment will receive an equal division of the total point score from the one piece of work.

You may incorporate selected excerpts, statements or phrases from publications by other authors, but they must be clearly marked as quotations and must be attributed. If you build on the ideas of prior authors, you must cite their work. You may obtain copy editing assistance, and you may discuss your ideas with others, but all substantive writing and ideas must be your own or be explicitly attributed to another.

If we suspect you have cheated (including plagiarism), at the very least you will receive a zero on the assignment. Rackham policy dictates that we must report every instance of academic dishonesty, no matter how small. Suspected academic misconduct will be handled by Dr. Gretchen Piatt. <https://rackham.umich.edu/academic-policies/section8/>

### **Student Academic Dispute Procedures**

Rackham's Academic Dispute Resolution Policy and Procedures are available to Rackham students who have a dispute or disagreement with faculty or staff about the equity and fairness of decisions or procedures that affect their academic standing, the conduct of their research, and progress toward the degree. Such issues may arise regarding fair and equal treatment in the conduct of a class, in the pursuit of the student's research, and in the grading or evaluation of academic work and research. Other issues may concern the equity and fairness of program, department, or Rackham policies. <https://rackham.umich.edu/academic-policies/section9/>

### **Diversity, Equity, and Inclusion**

The Department of Learning Health Sciences (DLHS) is committed to developing the institutional mechanisms and norms necessary to promote the values of diversity, equity, and inclusion, both inside and outside our classrooms. To this end, DLHS upholds the expectations that all courses will: (1) be inclusive, (2) promote honest & respectful discussions, (3) follow multicultural ground rules and (4) abide by UM policies and procedures. Inclusive courses are those in which teachers and learners co-create and co-sustain environments that support and encourage all members to participate equitably.

### **Accessibility and Accommodations**

If you need an accommodation for a disability, please let the instructor know at your earliest convenience. Some aspects of this course, such as the assignments, in-class activities, or the way the course is taught may be modified to facilitate your participation and progress. The instructor can work with you and the Office of Services for Students with Disabilities, or the Adaptive Technologies Computing Site to help determine appropriate accommodations. Any information about your disability will be treated with the utmost discretion.

### **Student Mental Health and Well-Being**

The University of Michigan is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) at (734) 764-8312 and <https://caps.umich.edu/> during and after hours, on weekends and holidays, or through its counselors physically located in schools on both North and Central Campus. You may also consult University Health Service (UHS) at (734) 764-8320 and <https://www.uhs.umich.edu/mentalhealthsvcs>, or for alcohol or drug concerns, see [www.uhs.umich.edu/aodresources](http://www.uhs.umich.edu/aodresources).

For a listing of other mental health resources available on and off campus, visit: <http://umich.edu/~mhealth/>.

### **Sexual Misconduct/Sexual Harassment Reporting**

Title IX prohibits sex discrimination to include sexual misconduct: harassment, domestic and dating violence, sexual assault, and stalking. If you or someone you know has been harassed or assaulted, you can receive confidential support and academic advocacy at the Sexual Assault Prevention and Awareness Center (SAPAC). SAPAC can be contacted on their 24-hour crisis line, 734-936-3333 and online at [sapac.umich.edu](http://sapac.umich.edu). Alleged violations can be reported non-confidentially to the Office for Institutional Equity (OIE) at [institutional.equity@umich.edu](mailto:institutional.equity@umich.edu). Reports to law enforcement can be made to University of Michigan Police Department at 734-763-3434.

### **Confidentiality and Mandatory Reporting**

As instructors, one of our responsibilities is to help create a safe learning environment on our campus. Dr. Gretchen Piatt also has a mandatory reporting responsibility related to her role as the Director of the Health Infrastructures and Learning Systems degree program. Instructors are required to share information regarding sexual misconduct or information about a crime that may have occurred on U-M's campus with the University. Students may speak to someone confidentially by contacting SAPAC's Crisis Line at (734) 936-3333.

**COURSE ACTIVITIES (Subject to revision)**

Week	Date	Activities	Readings (all in Canvas)
1	May 13	<ol style="list-style-type: none"> <li>1. Introductions, class expectations, assignments, introduction to Canvas</li> <li>2. Introduction to “Learning Health Systems and Low-Resource Settings”</li> <li>3. Overview of global health actors</li> <li>4. Overview of global data sources</li> </ol>	<ol style="list-style-type: none"> <li>1) From MDGs to SDGs, ICLEI Briefing sheet</li> <li>2) Hoffman and Cole, Global Health Actors</li> <li>3) Financing Global Health, FGH_2021</li> </ol>
2	May. 20	Guest Lecture: Dr. Liz Ludwig-Borycz Climate and Health: Data Sources and Issues  <b>ASSIGNMENT #1 DUE BY MIDNIGHT</b>	<ol style="list-style-type: none"> <li>1) Bangladesh paper</li> <li>2) Hellden scoping review</li> <li>3) 2023 Lancet Countdown</li> <li>4) Chersich systematic review</li> </ol>
3	May 27	NO CLASS – MEMORIAL DAY	
4	June 3	First half: In-class presentations by all students ( <b>ASSIGNMENT #2</b> )  Second half: Discussion of Assignment #1 + Assignment #2	TBD: Readings about what makes a low-resource setting; how countries are classified
5	June 10	Issues in implementing LHS in low-resource settings (lecture)  Discussion of Kenya readings <b>(1 volunteer to present a summary of the readings and lead discussion)</b>	TBD: Kenya readings
6	June 17	Guest Lecture: Dr. Sarah Compton Why does health policy matter in low- and middle-income countries?  <b>(1 volunteer to present a summary of the readings and lead discussion)</b>	TBD: Policy readings

7	June 24	<p>Guest Lecture (Tentative): Dr. Alim Swarray-Dean</p> <p><b>ASSIGNMENT #3 DUE BY MIDNIGHT</b></p>	TBD: Ghana readings
8	July 1	<p>Dr. Rama Mwenesi</p> <p><b>(1 volunteer to present a summary of the readings and lead discussion)</b></p>	TBD:
9	July 8	<p>Guest Lecture: Dr. Akbar Waljee Data science in Africa</p> <p><b>ASSIGNMENT #4 DUE BY MIDNIGHT</b></p>	TBD: Akbar readings
10	July 15	<p>Guest Lecture: Anjana Renji (tentative)</p> <p><b>(1 volunteer to present a summary of the readings and lead discussion)</b></p>	TBD: Anjana readings
11	July 22	<p>Guest Lecture: Dr. Francesca Williamson Equity and Learning Health Systems</p> <p><b>(1 volunteer to present a summary of the readings and lead discussion)</b></p>	TBD: FW readings
12	July 29	<p>Guest Lecture: Kat James Using drones for data collection in global settings</p> <p><b>(1 volunteer to present a summary of the readings and lead discussion)</b></p>	TBD: Kat readings / readings about drones or unusual data collection methods
13	August 5	NO CLASS	
15	Aug 12	<i>Student presentations of final paper: 10 minutes with 10-minute Q&amp;A</i>	





## **ASSIGNMENTS, DUE DATES, AND DIRECTIONS**

This course includes the following assignments:

<b>ASSIGNMENT SUMMARY</b>	<b>Due date</b>	<b>Possible Points</b>
Assignment #1 - Reflection paper: Core ingredients of a learning health system (1-2 pages)	May 20, 2024; midnight	10
Assignment #2: Class presentation on selected location, describing what makes it a high- or low-resource setting	June 3, 2024; in class presentation	10
Assignment #3: Reflection paper: The impact of policy on learning health systems (1-2 pages)	June 24, 2024; midnight	10
Assignment #4: Reflection paper: LHS Commentary (1 page)	July 8, 2024; midnight	10
In class summary of readings, leading discussion (choose one date: June 10, June 17, July 1, July 15, July 22, July 29)		10
Final assignment: LHS Commentary (~800 words)	In-class presentation August 12; Final commentary due August 16 at midnight	10  30
Class participation		10
	<b>TOTAL</b>	<b>100</b>

### **ASSIGNMENT #1: Reflection paper: Core ingredients of a learning health system**

Based on the courses you have taken in HILS, what do you see as the core, essential ingredients of a learning health system? What makes them essential? Use references to make your case. (~1-2 pages)

### **ASSIGNMENT #2: Class presentation on June 3**

Choose one of the following:

- Rural Alaska, USA
- Urban Detroit, MI, USA
- Nairobi, Kenya
- Bong County, Liberia
- Upper Peninsula, MI, USA

- Refugee resettlement camp in Jordan / South Sudan / Uganda / Kenya
- Appalachian Mountains, USA
- Ann Arbor, MI, USA in spring of 2020 (COVID-19 pandemic)
- (see instructor for approval of other potential locations)

Prepare a 10-15-minute presentation, addressing the following:

- Describe the location in terms of basic geographic, demographic and sociodemographic features
- In what way is this location a “high resource” location?
- In what way is this location a “low resource” location?
- What might be the biggest considerations in terms of a learning health system in this environment?
- Do you think a learning health system in this environment (all or part of it) is feasible? Why or why not?

### **ASSIGNMENT #3: Policy reflection**

Think about what you know about learning health systems. Think about what we just heard about health policy. How do you think policies (local, national, global) might impact potential learning health systems? Provide one example of a policy that might impede or enhance the ability to create an effective learning health system. (1-2 pages)

### **ASSIGNMENT #4: LHS Commentary**

If you were writing an editorial or commentary about LHS and low-resource settings, what would your main argument be? Create a single, impactful statement. Generate 3-5 bullet points to support your statement. (Include citations if possible.) (<1 page)

### **In class summary of readings and leading discussion**

The second half of class will usually entail a seminar style discussion in which one student *briefly* summarizes each article that was assigned (with the assumption that everyone will have read them). The student will highlight the strengths and limitations of each article, as well as how each article fits into the broader narrative of the class. The student will come prepared with questions to prompt discussion.

### **FINAL ASSIGNMENT:**

Take your previous written assignments and craft a commentary of approximately 800 words addressing some aspect of LHSs and low-resource settings. (include citations, any format)

The outline of the commentary can loosely follow:

Paragraph 1: A strong, clear statement of what needs to happen / what needs to change / what needs to be done

Paragraph 2: First topic / evidence backing up your thinking

Paragraph 3: Second topic / evidence backing up your thinking

Paragraph 4: Third topic / evidence backing up your thinking

Paragraph 5: Summary / call to action / Implications

Prepare a brief presentation of your commentary to present during the final class on August 12.

You may use feedback received from your presentation to revise your original commentary.  
**Submit the final commentary by Friday August 16<sup>th</sup> at midnight.**