

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF LEARNING HEALTH SCIENCES

Learning Cycle Capstone
LHS 622
SU 2022

CREDIT HOURS

3

PRE-REQUISITES

Completion of LHS 621; Engaged in the Summer Learning Cycle Project activities; Graduate standing or permission of instructor

FACULTY

Caren M. Stalburg, MD, MA

Associate Professor of Learning Health Sciences
Associate Professor of Obstetrics and Gynecology
Founding Director of HILS Online Master of Science Degree
Co-Director of Medical Education Scholars Program

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Office Hours: TBA via Zoom

Email is the best way to reach me. I will respond to you within 24 hours during weekdays and 48 hours over weekends. Grades and feedback will be posted within a week of the deadline.

COURSE DESCRIPTION

Students will apply concepts learned in LHS 621 about how dissemination and implementation sciences fit into the LHS learning cycle and apply practical skills to implement and evaluate complex interventions to improve health care.

COURSE OBJECTIVES

By the completion of the course students will be able to:

1. Develop ways to disseminate findings from the summer learning cycle project.
2. Apply systems theories to examine the interactions and operations of components of health systems and how they produce value for stakeholders.
3. Apply systems thinking to the design and conduct of research and the implementation of its findings within the context of complex health systems.
4. Examine the interplay between policy and organizational processes in Dissemination and Implementation (D&I).
5. Assess multilevel determinants of health and health care disparities in study design.
6. Evaluate the outcome of research activities and their contribution to the quality, equity, or value of health systems.
7. Design dissemination strategies and methods for key stakeholder engagement and adaptation of interventions.
8. Critique advanced topics in D&I research and their inclusion into projects, programs, and products.
9. Analyze mixed methods approaches and how they can be used to improve Learning Health Systems (LHS) research studies.

10. Differentiate between complex and non-complex interventions.
11. Analyze concepts of appropriate adaptation and fidelity.
12. Choose appropriate methods to address external validity in study design reporting and implementation.
13. Justify when to mount larger efforts to scale up, spread, and sustain successful interventions based on strength of clinical evidence, organizational and provider readiness to change, and adopt interventions.
14. Describe relationships between components of implementation interventions and learning cycles.

CONTENT TOPICS

- Module 1: Introduction to Dissemination and Implementation (D&I) Science
- Module 2: Systems Thinking in D&I Research
- Module 3: Designing for Dissemination
- Module 4: Design, Analysis, and Measurement
- Module 5: Evaluation Approaches
- Module 6: Mixed Methods
- Module 7: Ethics and Policy Issues
- Module 8: Communication
- Module 9: Conducting D&I Research in Healthcare
- Module 10: Health Equity for Vulnerable Populations and Global Context
- Module 11: Conducting D&I Research in Community and Public Health and Social Service Settings
- Module 12: Conducting D&I Research in Schools and Workplaces
- Module 13: Adaptation and Fidelity
- Module 14: Scale Up and Sustainability

TEACHING METHODS

This is an online course, which will be delivered via Canvas. It is also your learning environment, where you will interact with a community of your classmates and instructors. Within the course Canvas site, you will access the learning materials and syllabus, discuss issues, submit assignments, take exams, email other students and the instructors, participate in online activities including small groups, and display your projects.

This course will be taught using multiple methods, including lectures, assigned readings, written assignments and article critiques, discussions of course reading materials, and a dissemination plan project that builds on assignments conducted throughout the semester.

REQUIRED TEXTS AND OTHER MATERIALS

1. All the required materials will be provided in Canvas.
2. Audio capability is required to record a presentation for the course project.

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, examples, and questions that present challenging approaches. Students will also apply concepts to their own research ideas and projects.

COURSE POLICIES

Accessibility and Accommodations

Students should contact their instructors before or during the first week of classes regarding any special needs. Students seeking academic accommodations should register with Services for Students with Disabilities (SSD). SSD arranges reasonable and appropriate academic accommodations for students with disabilities. Please visit <https://ssd.umich.edu> for more information.

GRADING AND EVALUATION

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

1. **14 module discussions (20 points each): 280 points**
2. **4 Assignments: 330 points**
 - Terminology Quiz: 30 points
 - Hybrid Design Article Critique: 100 points
 - Mixed Methods Journal Article Critique: 100 points
 - Visual Abstract and Impact Statement: 100 points
3. **Dissemination Project: 390 points**
 - I. Specifying Research Findings and Products: 20 points
 - II. Identifying End Users: 30 points
 - III. Working with Dissemination Partners: 30 points
 - IV. Communicating Your Message: 30 points
 - V. Evaluating Success: 30 points
 - VI. Dissemination Work Plan: 30 points
 - Final Report + Presentation Recording: 100 + 100 points
 - Peer Review: 20 points

GRADING POLICIES

Module discussions focus on practice and engagement in the module content so they will **not** be accepted after the due date.

No late assignments will be accepted without penalty. Unless an agreement has been reached in advance with the instructor, 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 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%	B+	87-89%	C+	77-79%	D+	67-69%	F	<60%
A	93-96%	B	83-86%	C	73-76%	D	63-66%		
A-	90-92%	B-	80-82%	C-	70-72%	D-	60-62%		

DLHS Grade Grievance Policy

Regular feedback on graded assignments and timely resolution of any grading concerns is helpful for student learning and contributes to an overall positive experience. Students are encouraged to discuss any assignment grade concerns with the instructor(s) within two weeks 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 two weeks of the course grades being posted on Wolverine Access.

For this course, the grade dispute arbitration will happen within the Department of Learning Health Sciences (DLHS). After initial discussion with the faculty of record for the course, there is an opportunity for a second look by another DLHS 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 Associate Chair for Educational Programs or assigned designee will adjudicate the dispute. Per Rackham's Academic Dispute Resolution Process, if the concern is not resolved, the student may seek a formal resolution conference with the Medical School's Rackham Resolution Officer (see <http://www.rackham.umich.edu/policies/academic-dispute-resolution> for full policy and the contact information for the current resolution officer.

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/>

REMOTE LEARNING

While synchronous course instruction will be rare, there may be times when real-time discussion or small group meetings for assignments or group work may be needed. Instructors may also have office hours in real time as well.

The course will use Zoom for these synchronous ("real time") meetings. Meeting dates and times will be scheduled through [Canvas](#) and should appear on your calendar within Canvas.

Please take the time to familiarize yourself with Zoom by visiting [U-M's Getting Started with Zoom](#) page. You may choose to use Zoom on your mobile device (phone or tablet).

This article describes how to update your name in Zoom:

<https://teamdynamix.umich.edu/TDCClient/30/Portal/KB/ArticleDet?ID=746>

Some students and faculty may also wish to add their personal pronouns beside their names.

Things to Know About Zoom:

- You must sign in to my Zoom session using your uniquename and password (for med.umich.edu users: enter your Level 1 credentials).
- The Zoom sessions are recorded.
- You can contact [Information and Technology Services](#) if you have any technical issues accessing Zoom. You can also contact [Health Information Technology & Services](#) for help.

Digital Etiquette

This course requires frequent text-based communication, including discussion board, assignment feedback, email, Canvas message, etc. Please use proper grammar and punctuation. Write in full sentences and short paragraphs. Be professional and respectful to each other in all discussions. If you wouldn't say it to someone's face, don't say it online either.

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. We expect that your submitted work will represent your own thoughts, opinions, and knowledge. If you share it with anyone else prior to submission, you may contribute to a breach of academic integrity, and we encourage you not to share your written work with others until it has been assessed.

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.

A resource explaining academic integrity and plagiarism can be found here:

<https://guides.lib.umich.edu/c.php?g=1039501&p=7538393>

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 initially by your course instructor.

<https://rackham.umich.edu/academic-policies/section8/>

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.

<https://rackham.umich.edu/rackham-life/diversity-equity-and-inclusion/>

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.

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. Alleged violations can be reported non-confidentially to the Office for Institutional Equity (OIE) at institutional.equity@umich.edu. Reports to law enforcement can be made to the University of Michigan Police Department at 734-763-3434.

Support for Food Insecurity

Students across the country experience food insecurity at alarming rates. The Maize and Blue Cupboard at the University of Michigan provides food, kitchen and cooking supplies, personal and household items, and support services. For information about accessing their services, please visit <https://mbc.studentlife.umich.edu/>

Confidentiality and Mandatory Reporting

As instructors, one of our responsibilities is to help create a safe learning environment. 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

COVID-19 statement regarding any in-person activities

For the safety of all students, faculty, and staff on campus, it is important for everyone to comply with safety measures that have been put in place for our protection. We each have a responsibility for protecting the collective health of our community. Your participation in this course on an in-person basis is conditional upon your adherence to all safety measures mandated by the State of Michigan and the University, including maintaining a physical distance of six feet from others, properly wearing a face covering in class, and following instructions regarding cleaning your study space. Other applicable safety measures may be described in the [Wolverine Culture of Care](#) and the [University's Face Covering Policy for COVID-19](#). Your ability to participate in this course in-person, as well as your grade, may be impacted by failure to comply with campus safety measures.

Individuals seeking to request an accommodation related to the face covering requirement under the Americans with Disabilities Act should contact the [Office for Institutional Equity](#). If you are unable or unwilling to adhere to these safety measures while in a face-to-face class setting, you will be required to participate on a remote basis or to disenroll from the class. I also encourage you to review the [Statement of Student Rights and Responsibilities](#), which includes a COVID-related Statement Addendum.

COURSE ACTIVITIES

Date	Module & Topic	Materials	Graded Tasks & Due Dates (11:59 p.m. ET)
5/03-5/08	Get Started	<ul style="list-style-type: none"> Syllabus and Canvas materials. 	<ul style="list-style-type: none"> Self introduction
5/09-5/15	Module 1: Introduction to Dissemination and Implementation (D&I) Science	<ul style="list-style-type: none"> Brownson et al. Chs 2, 5. Lecture: Intro to D&I Science 	<ul style="list-style-type: none"> Module 1 Discussion (Thurs & Sun) Assignment: Terminology Quiz
5/16-5/22	Module 2: Systems Thinking in D&I Research	<ul style="list-style-type: none"> Brownson et al. Chs 9, 10 Luke & Stamatakis (2012) Peters (2014) Lecture: Systems Thinking in D&I Research 	<ul style="list-style-type: none"> Module 2 Discussion (Thurs & Sun)
5/23-5/29	Module 3: Designing for Dissemination	<ul style="list-style-type: none"> Brownson et al. Chs 1, 7 Steensma et al. Ch 12 Lecture: Designing for Dissemination Video: This Is Michigan Helping Kids Get Active 	<ul style="list-style-type: none"> Module 3 Discussion (Thurs & Sun)
5/30-6/05	Module 4: Design, Analysis, and Measurement	<ul style="list-style-type: none"> Brownson et al. Chs 13, 14 Curran et al (2012) Lecture: Design, Analysis, and Measurement 	<ul style="list-style-type: none"> Module 4 Discussion (Thurs & Sun)
6/06-6/12	Module 5: Evaluation Approaches	<ul style="list-style-type: none"> Brownson et al. Ch 19 Schultes et al (2021) Lecture: Evaluation Approaches 	<ul style="list-style-type: none"> Module 5 Discussion (Thurs & Sun) Assignment: Article Critique
6/13-6/19	Module 6: Mixed Methods	<ul style="list-style-type: none"> Brownson et al. Ch 20 Dossett, Kaji, & Dimick (2020) Lecture: Mixed Methods 	<ul style="list-style-type: none"> Module 6 Discussion (Thurs & Sun)
6/20-6/26	Module 7: Ethics and Policy Issues	<ul style="list-style-type: none"> Brownson et al. Chs 4, 26 Video: Research Ethics and Policy Series (REPS) 	<ul style="list-style-type: none"> Module 7 Discussion (Thurs & Sun) Assignment: Article Critique
6/27-7/03	Module 8: Communication	<ul style="list-style-type: none"> Manojlovich et al (2015) Ratna (2019) Ibrahim (2018) Lecture: Communication 	<ul style="list-style-type: none"> Module 8 Discussion (Thurs & Sun) Dissemination Project: Part I
7/04-7/10	Module 9: Conducting D&I Research in Healthcare	<ul style="list-style-type: none"> Brownson et al. Ch 23. Lecture: Conducting D&I Research in Healthcare 	<ul style="list-style-type: none"> Module 9 Discussion (Thurs & Sun) Assignment: Visual Abstract & Impact Statement Dissemination Project: Part II

Date	Module & Topic	Materials	Graded Tasks & Due Dates (11:59 p.m. ET)
7/11-7/17	Module 10: Health Equity for Vulnerable Populations and Global Context	<ul style="list-style-type: none"> • Brownson et al. Chs 27, 28. • Lecture: Health Equity for Vulnerable Populations and Global Context 	<ul style="list-style-type: none"> • Module 10 Discussion (Thurs & Sun) • Dissemination Project: Part III
7/18-7/24	Module 11: Conducting D&I Research in Community and Public Health and Social Service Settings	<ul style="list-style-type: none"> • Brownson et al. Chs 21, 22. • Lecture: Conducting D&I Research in Community, Public Health, and Social Service Settings 	<ul style="list-style-type: none"> • Module 11 Discussion (Thurs & Sun) • Dissemination Project: Part IV
7/25-7/31	Module 12: Conducting D&I Research in Schools and Workplaces	<ul style="list-style-type: none"> • Brownson et al. Chs 24, 25. • Lecture: Conducting D&I Research in Schools and Workplaces 	<ul style="list-style-type: none"> • Module 12 Discussion (Thurs & Sun) • Dissemination Project: Part V
8/01-8/07	Module 13: Adaptation and Fidelity	<ul style="list-style-type: none"> • Brownson et al. Chs 16, 17. • Lecture: Adaptation and Fidelity 	<ul style="list-style-type: none"> • Module 13 Discussion (Thurs & Sun) • Dissemination Project: Part VI
8/08-8/19	Module 14: Scale Up and Sustainability	<ul style="list-style-type: none"> • Brownson et al. Ch 15 • Lecture: Scale Up and Sustainability 	<ul style="list-style-type: none"> • Module 14 Discussion (Thurs & Sun) • Dissemination Project: <ul style="list-style-type: none"> ○ Final Dissemination Plan and Presentation Recording (Wed, August 17th) ○ Peer Reviews (Friday, August 19th)

ASSIGNMENTS, DUE DATES, AND DIRECTIONS

- A. Discussion Board:** There is a required asynchronous discussion in every module that allows you to reflect and connect the module readings and materials to the real world and/or your work/practice. This is also where you can ask questions and clarify muddy points. You are expected to post an original post by Thursday and reply to at least two other peers by the ending Sunday of the week. Your posts should address all aspects of the discussion prompts and demonstrate a thorough understanding of the module readings and materials.
- B. Assignments:** There are four assignments in this class.
- Terminology Quiz (Module 1; 30 points): This is an open book quiz that will check your understanding of the commonly used terminology in the D&I research and field.
 - Hybrid Design Article Critique (Module 5; 100 points): You will examine an assigned research journal article related to hybrid design using the guidelines provided. You will write a short report to critique the various aspects of the article.

- Mixed Methods Journal Article Critique (Module 7; 100 points): You will examine an assigned research journal article related to the mixed methods using the guidelines provided. You will write a short report to critique the various aspects of the article.
 - Visual Abstract and Impact Statement (Module 9; 100 points): You will select an article or a project to create a visual abstract and write an impact statement.
- C. Dissemination Project:** You will follow the six steps/parts in the AHRQ dissemination planning toolkit to develop a dissemination plan for targeted audiences. In the first half of this course, you will prepare and identify an appropriate intervention, product, or finding as the context for this course's dissemination plan project. You are strongly encouraged to keep a journal/log with notes and connections to the appropriate concepts in this course. This will become helpful when you are working on the dissemination plan project deliverables. In the second half of this course, you will then apply the knowledge and skills that you learn in this course to develop a dissemination plan. You will also record a 5–6 minute video presentation to share with your peers.
- I. Specifying Research Findings and Products (Module 8; 20 points)
 - II. Identifying End Users (Module 9; 30 points)
 - III. Working with Dissemination Partners (Module 10; 30 points)
 - IV. Communicating Your Message (Module 11; 30 points)
 - V. Evaluating Success (Module 12; 30 points)
 - VI. Dissemination Work Plan (Module 13; 30 points)
 - Final Report and Presentation Recording (see the due date in the table above; 200 points)
 - Peer Reviews (see the due date in the table above; 20 points)

Please see the Canvas course site for the detailed assignment instructions and requirements.