

Course Syllabus**Course
Description**

Design thinking is a powerful tool for solving the complex systemic problems in the healthcare system, the day-to-day issues faced by healthcare professionals and leaders, and for developing innovative solutions for the needs of patients and providers. This synchronous hybrid course is designed to prepare health care professionals, leaders, and executives to implement design thinking practices in healthcare practice, administration, strategic planning, and research.

Participants will learn and engage with leading experts in design thinking from both academic institutions and industry. These experts will provide insights on design thinking methods and practice based on authentic experiences in using design thinking in healthcare. Throughout the course, students will also work with inter-professional design thinking teams coached by experienced designers to gain hands-on experience with applying the practice of design thinking to solving healthcare problems.

This course concludes with an in-person capstone symposium held at the University of Nebraska Medical Center in Omaha, Nebraska. The capstone symposium will include guest speakers, design presentations, prototyping, as well as intellectual property, tech transfer, and small business development consultation.

Design Thinking for Healthcare is intended for health care professionals in all fields as well as executives, researchers, academics, health science education professionals and leaders, and others interested in driving innovation in healthcare and related fields.

Course Director

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**Course
Instructors**

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Design Coaches	kbravo@unmc.edu [TBD] Course will have between 4-8 design coaches. Number will vary depending on enrollment. Instructors may also be coaches.
Guest Speakers	[Course will have 6-8 guest speakers, TBA]
Class Days, Times, Location Zoom Link	Required live lecture weekly, 60-90 minutes (Day TBD) TBD, Online TBD
Design Team Meetings	Students will participate in a design challenge as a member of a team led by a Design Coach. Design Teams will meet weekly for 60-90 minutes. Meeting schedule will be determined by the coach in consultation with the team members.
Office Hours	There are no set office hours for this course. Students may request an appointment by email. Virtual office hours may be conducted via phone, Zoom, or Teams.
Course Texts	Required: Ku, Bon, and Ellen Lupton. <i>Health Design Thinking : Creating Products and Services for Better Health</i> . New York, New York: Cooper Hewitt, 2020.
Course Format	This course is a synchronous hybrid online course. Students are required to attend the following synchronous sessions: <ul style="list-style-type: none"> • Weekly live lecture with Q&A • Weekly Design Thinking team meetings <p>Students will also be expected to complete assigned readings and participate in moderated discussion board throughout the week.</p>
Course Website	https://unmc.instructure.com (use your NetID and password)
ADA Policy	The University of Nebraska Medical Center takes pride in its diverse population and is committed to providing all students the opportunity to take full advantage of its programs and facilities. In keeping with this philosophy, UNMC strives to eliminate architectural and programmatic barriers that may prevent qualified students with disabilities from obtaining an academic or professional degree. Reasonable accommodations (e.g. auxiliary aids and services or academic adjustments) are offered to provide students with disabilities an equal opportunity to participate in academic programs and to promote and facilitate the integration of students with disabilities into the mainstream of university academic life. Students should initiate requests for accommodation; however, the accountability and responsibility of accommodations is shared among faculty, students, administrators, and staff. Reasonable accommodations for students with disabilities are designed to provide equal access in a manner that does not compromise essential elements of academic programs.
ADA Registration and Contact Information	Full Policy https://catalog.unmc.edu/general-information/student-policies-procedures/student-accommodation-policy/ Reasonable accommodations are provided for students who are registered with UNMC Accessibility Services Center (UNMC ASC) and make their requests sufficiently in advance. For more information, contact UNMC ASC (Location: Student Life Center, Suite 2031; Phone: 402.559.7276, email: unmcasc@unmc.edu)

Course Learning Objectives:

At the end of this course, students should be able to do the following:

Lead the implementation of design thinking processes within healthcare organizations

1. Translate complex healthcare issues into design thinking challenges
2. Use interviews and other design thinking techniques to develop empathy for users, including patients, families, and other healthcare professionals
3. Define complex issues in healthcare using techniques such as storyboards, journey maps, data visualization, and surveys
4. Develop novel solutions to complex problems using design thinking methods such as brainstorming
5. Design low fidelity prototypes of solutions using readily available, low-tech materials
6. Generate compelling narratives based on real world users to attract funding and other resources to enable the implementation/creation of a product, process, or other intervention
7. Successfully navigate “next steps” to bring ideas developed through design thinking to reality
8. Access resources to manage the legal, regulatory, and financial barriers to successful technology transfer and commercialization

Course Assignments

Discussion Boards: Students will be expected to post regularly to weekly discussion boards. All posts to the discussion board should be relevant, coherent, use examples from the reading and lectures, provide critical insight, and demonstrate comprehension of the topic(s) discussed.

Design Team: Students will be a member of a design team led by a Design Coach. Students will be expected to complete design team tasks (interviews, research, brainstorming, etc) both in synchronous online team sessions and independently as necessary. The Design Coach will provide regular feedback to team members.

Class Policies [modify or delete table rows as needed]

Instructor Expectations

Email	The Course Director will typically respond to email within 24 hours or less if sent Monday – Friday. The instructor may respond to weekend emails, but it is not required of them. If you receive an out of office reply when emailing, it may take longer to return emails. The instructor will give students advance notice if possible when they will be out of the office.
Feedback	Students will receive feedback from Design Coaches and team mates on their design team on an on-going basis. Formal feedback will be based on a rubric. Informal feedback will be provided via email or via scheduled online meetings.
Telephone Messages	The course will respond to telephone messages within 24 hours Monday thru Thursday. Calls left on a Friday will be returned that day if possible, if not they will be returned on Monday.

Student Expectations

Assignments

- Attend all guest lectures and participate in the Q&A sessions
- Complete all assigned reading and participate in online discussion boards
- Attend and participate in all in-person design thinking team meetings
- Participate fully in the design thinking process and complete all projects tasks in a timely manner

Attendance/ Participation

Your attendance and active participation are an integral part of your learning experience in this course.

Communication

Class members are expected to follow common courtesy in all communication to include email, discussion boards, and Canvas. All electronic communications sent should follow proper English grammar rules to include complete sentences. This is a professional course, and you are expected to communicate as professionals.

Contributions

Students are expected to actively participate in online discussions, Q&A sessions and Design Team activities. Students will be expected to provide independent contributions as needed for the Design Team. The Design Coach will provide guidance on individual and group contributions.

Discussion Board

Students are expected to participate in the course Group Discussion Board on Canvas. Throughout the semester, students will be assigned discussion board questions that will be addressed in the student's original post. Students are also expected to reply to at least two peers' postings per discussion board. Peer replies should be thoughtful, reflective and respectful while prompting further discussion using content knowledge, critical thinking skills, questioning and relevant information of the topic.

- View the 15 Rules of Netiquette for the online discussion board at <http://blogs.onlineeducation.touro.edu/15-rules-netiquette-online-discussion-boards/>

Email

All email correspondence between student/instructor and peer/peer will be conducted in a professional manner following email etiquette.

Academic Integrity and Professional Conduct

Students at the University of Nebraska are members of an academic community in which academic integrity and responsible conduct are essential for the community to function. To ensure that students know what is expected of them, the University has adopted the Standards of Academic Integrity and Responsible Conduct ("Standards"). Selected sections from the [Student Code of Conduct, Section II](#):

Students are expected to approach and complete their academic work with integrity. They are expected to do their own work, to be honest in the statements they make, to refrain from harming others, to refrain from improperly helping others, and to follow the rules. Students must read instructions and syllabi carefully so that they know what their instructors expect in terms of academic integrity.

Students who are unsure whether or not particular conduct is appropriate should ask their instructors or university administrators. Failing to act with integrity is a violation of the Code. A student fails to act with integrity when they engage in or attempt to engage in any of the following conduct.

1. Cheating, which includes, but is not limited to:

- a. Copying from another student's exam, assignment, or project.
- b. Using materials during an exam or for an assignment that are not authorized by the instructor.
- c. Using devices during an exam that are not authorized by the instructor.
- d. Taking any materials out of the exam room (for example, the exam itself or scratch paper) that the exam instructions prohibit students from taking.
- e. Making an electronic copy of part or all of an exam, unless the instructions authorize making a copy.
- f. Possessing a copy of an exam or assignment that the student knows or should have known that they are not authorized to have.
- g. Working on an exam or assignment with someone else, unless group work has been authorized by the instructor.
- h. Taking an exam for another student, or allowing their exam to be taken by someone else.
- i. Taking all or part of work that someone else prepared and submitting it as one's own.
- j. Taking all or a substantial part of an assignment submitted for one course and submitting it in another course, without the authorization of the instructor for that course.

2. Dishonesty, Falsification, and Fabrication, which includes, but is not limited to:

- a. Making false statements to avoid taking an exam or submitting an assignment at the scheduled time.
- b. Making false statements to avoid a penalty for failing to take an exam or submit an assignment at the scheduled time.
- c. Making up or purposefully misstating information or sources in any assignment or research project.
- d. Engaging in plagiarism by presenting the words or ideas of another person as one's own.
- e. Making changes to a graded exam or assignment and then representing that the changes were part of the original exam or assignment.

4. Improperly Helping Others, which includes, but is not limited to:

- a. Helping another student on an exam or an assignment when the student is not authorized to receive help.
- b. Knowingly helping another student violate these Standards, including, but not limited to, sharing an instructor's teaching materials without permission.
- c. Unauthorized distribution, electronically or otherwise, of an instructor's course materials.

Plagiarism:

Examples of plagiarism relevant to this course:

- Using text verbatim from a website, journal, or book in response to an assignment without use of quotation marks or proper citing
- Excessive use of verbatim or paraphrased text in response to an assignment or exam question, even if quotations and proper citation are included
- Copying or paraphrasing responses to specific assignment or exam questions provided by another student or individual whether the original work was produced in a past or the present course
- Paraphrasing by select word replacement even if properly cited
- Producing a schematic or diagram that is derivative of another's work without proper citation (eg. "adapted from Figure X in *citation*")

- Failure to cite the source of images obtained from journal articles, books, websites, etc. on the relevant slide or poster panel. (For journal discussions, citation of the article at the beginning of the presentation is sufficient to cover all images presented from that paper.)

	Learning Outcome(s)	Speaker/Presenter(s)	Reading/Videos/etc	Discussion Topics	Design Coach Activities
M1/W1					
Principles of Design Thinking	Understand how the design thinking process can be used to develop innovative solutions to complex healthcare problems	Chancellor/Vice Chancellor (Welcome Message) Instructor's/Coaches (Brief Introductions) Guest TBA (Principles of Design Thinking)	Health Design Thinking, Ku (15-56) Ethnography Field Guide , Stanford	Case Study	Framing a Design Challenge
M2/W2					
Empathy	Learn how to use observation, interviews, role, playing, persona, and other methods to develop empathy for the user.	Guest (TBA) DT Directors/Coaches	Health Design Thinking, Ku (64-80) Empathy Field Guide , Stanford	Case Study	Empathy Interviews
M3/W3					
Define	Learn how to use the knowledge and insights gained from empathy interviews to develop a point-of-view and problem statement.	Guest (TBA) DT Directors/Coaches	Health Design Thinking, Ku (72-76) Developing a Point of View , Stanford	Case Study	Develop a Point of View and Problem Statement
M4W4					
Ideate	Learn how to use brainstorming and other ideation techniques to generate ideas and solutions to complex problems.	Guest (TBA) DT Directors/Coaches	Health Design Thinking, Ku (62-63) Ideation Exploration , Stanford Brainstorming , Interactive Design Foundation	Case Study	Brainstorming Activities
M5W5					
Prototype	Learn how to rapidly develop and iterate low-fidelity prototypes to test with users o gain insights into strength and s weaknesses of a solution	Guest (TBA) DT Directors/Coaches	Health Design Thinking, Ku (210-215) Prototyping: An Example (Stanford)	Case Study	Prototyping activities

M6W6					
Test	Learn how to present prototypes to users to gain insights into strength and weaknesses of the solution.	Guest (TBA) DT Directors/Coaches	<i>Stage 5 in the Design Thinking Process: Test</i> , Interaction Design Foundation	Case Study	User Testing
M7W7					
Refine/Iterate	Learn how to use insights gained from use testing to refine a solution.	Guest (TBA) DT Directors/Coaches	<i>Design Thinking and the Insight Gap</i> , Becker <i>Hands on with Design Thinking: Refine Phase</i> , Curiosity Tank	Case Study	Refining the solution
W8W8					
Design Thinking Symposium	Learn how to effectively present a design thinking solution to decision-makers and take steps toward implementation, commercialization, and other outcomes.	Guest (TBA) DT Directors/Coaches (Complete agenda will be provided)			Design Team Presentations