490-281 - Digital Health Innovations & Impact

Digital health continues to experience explosive growth as technology is positioned to provide solutions to lower costs while also increasing accessibility, quality and outcomes in health care. In this course, students will be introduced to patient engagement, population health, digital therapies, and numerous other areas within digital health; learn about interoperability standards driving data sharing and interconnectivity across the health care industry; review the regulatory bodies defining standards of care, along with understanding the privacy and security laws governing the use of health care data. The course includes a project prototyping and pitching a digital health solution. We will also hear from industry experts who will participate as guest lecturers with opportunities for students to ask questions.

Course Objectives

By the end of the course the student will be able to:
- Describe digital health and elements of the interdependent healthcare system
- Identify and describe key areas within digital health
- Identify and define the interoperability standards
- Describe current emerging technologies and use cases within digital health
- Understand privacy and security laws related to digital health
- Develop prototype presentation and sales pitch skills

Time: Monday 9:20a ET – 10:35a ET

Location: Zoom

Credits: 1.5 Hours

Instructor: Corey Mercy

Office Hours: Virtual office in Sakai and before/after class period by appointment only

Email: cmercy@email.unc.edu

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Course Outline
- Introduction to Digital Health
- Patient engagement and consumerism
- Diagnostics and digital therapies
- Health access, and population health
- Interoperability
- Protected Health Information
- Regulatory Agencies
- Emerging Technologies

Course text: readings from carefully selected scholarly articles, government documents and other sources as assigned.

Supplemental Reading: Pereau, K. & Lenson, B. (Eds.). (2019). *The Digital Health Revolution*. Los Angeles, CA: TranscendIT Health. ISBN-10: 0578409720
ISBN-13: 978-0578409726

Sonnier, P. (2017). The fourth wave: Digital health - a new era of human progress. San Diego, CA: www.StoryofDigitalHealth.com. ISBN-10: 9781976791550 ISBN-13: 978-1976791550

Sakai: We will use Sakai (https://www.unc.edu/sakai/) in this course to submit assignments, return grades, share lecture notes, provide access to assigned readings and other class resources.

Course Project:
- Analyze market and develop a technology proposal
- Identify problem you're trying to solve
- Define business and technical requirements
- Identify tools used to build product offering
- Build prototype - mock up UI, and other functionality
- Estimate development effort and cost; startup cost
- Present project to a panel of industry experts.

Grading

Your grade for this course will be based on the course project and class participation. The approximate breakdown within those categories is as follows:

85% - Course project

        10% - Deliverable #1 – team role self-identification and area of interest

        10% - Deliverable #2 – group member list and project topic/scope

        20% - Deliverable #3 – project draft for feedback

        35% - Final project presentation

        10% - Peer/self-Evaluation

15% - Class Participation - attendance, coming prepared, active engagement in discussion, completion of knowledge self-assessments in Sakai.

Points	What it means	Grade
95>	Mastery of course content at the highest level of attainment that can reasonably be expected	A
92-94 87-91 83-86 80-82	A totally acceptable performance demonstrating an adequate level of attainment	A- B+ B B-
77-79 73-76 70-72 67-69 60-66	A marginal performance in the required exercises demonstrating a minimal passing level	C+ C C- D+ D
<60	For whatever reasons, an unacceptable performance	F

Course Policies and Expectations

Communications

- **Course announcements** will be posted on Sakai. Announcements may include information about the week's work, or other timely information.
- **Email** is the best way to contact me.
- **Virtual Office Forum in Sakai** should be used for any general questions about course, assignments, etc. I will monitor the forum and respond within 24 hours. Before posting a question, please check the syllabus, schedule and course notes in Sakai to see if they contain the answer to your question.

Class attendance is crucial to fulfilling learning objectives of the course that relies heavily on information presented by instructor/guest lecturers and in-class discussion.
- Be on time for class;
- If you know in advance that you will have to miss a class, arrive late to class, or leave early from class, please let me know ahead of time;
- If you miss class unexpectedly, please let me know why you were absent before the next class meeting

Class preparation is key to getting the most out of each class.
You are expected to come to class having completed the readings from textbook and other resources linked from the class schedule in Sakai. Be prepared to ask questions and take part in discussion.

Assignment Submission
All course project deliverables are to be submitted via Sakai by the start of class on the day they are due. For group deliverables (#2 and #3), only one member of the team needs to submit on behalf of the group.

Academic Integrity and Diversity
UNC-Chapel Hill has had a student-administered honor system and judicial system for over 100 years. Because academic honesty and the development and nurturing of trust and trustworthiness are important to all of us as individuals, and are encouraged and promoted by the honor system, this is a most significant University tradition. You are responsible for being familiar with the UNC-Chapel Hill [Honor System](#).

The UNC Honor Code is in effect for all work in this course. Section II. B. of the [Instrument of Student Judicial Governance](#) gives examples of actions that constitute academic dishonesty

In support of the University's diversity goals and the mission of the School of Information and Library Science, SILS embraces diversity as an ethical and societal value. We broadly define diversity to include race, gender, national origin, ethnicity, religion, social class, age, sexual orientation and physical and learning ability. As an academic community committed to preparing our graduates to be leaders in an increasingly multicultural and global society we strive to:
- Ensure inclusive leadership, policies, and practices;
- Integrate diversity into the curriculum and research;
- Foster a mutually respectful intellectual environment in which diverse

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opinions are valued;

- Recruit traditionally underrepresented groups of students, faculty, and staff; and
- Participate in outreach to underserved groups in the State.

The statement represents a commitment of resources to the development and maintenance of an academic environment that is open, representative, reflective, and committed to the concepts of equity and fairness.