MASTER OF DIGITAL HEALTH CURRICULUM

Department of Kinesiology

College of Human Sciences

Iowa State University

**PROGRAM DESCRIPTION**

The Department of Kinesiology offers a 12-24-month, online, 30-credit professional master's degree in Digital Health. The overall academic goal is to prepare students to use of information and communications technologies in health professions to manage illnesses and health risks, enhance efficiency of treatment delivery, make interventions more personalized and precise, and promote health and wellness. Students will be taught digital health knowledge and skills including the use of wearable devices, mobile health, telehealth, and health information technology. Students will be taught to incorporate digital technologies into the delivery of exercise and health interventions, analyze individual and population level data to develop efficient solutions for target populations, and integrate innovative technologies to target multiple layers of influence to empower patients and populations in the self-management of their health and the health of their families. This is a coursework only program of study.

**PROGRAM OBJECTIVES**

* Incorporate digital technologies such as mobile applications, sensors, wearables, and telehealth into the delivery of health interventions (e.g. exercise, injury prevention, physical therapy and rehabilitation, cardiovascular health, sleep improvement, chronic disease management, smoking cessation).
* Analyze individual and population level data to develop efficient solutions for target populations.
* Integrate innovative technologies to target multiple layers of influence including patients, providers, programs, environments, and policies as to empower patients in the self-management of their physical activity and health and the health of their families.

**PROGRAM ACCREDITATION**

This curriculum has been designed with the digital health program competencies from the [Commission on Accreditation for Health Informatics and Information Management Education](https://www.cahiim.org/accreditation/digital-health) (CAHIIM).

**COURSES**

(2) Foundations of Digital Health

(2) Research Methods and Ethics of Health Technologies

(3) Analytics and AI for Health Strategies

(3) Behavioral Health and Technology: Strategies for Digital Adoption, Policy, and Impact

(3) Digital Health Solutions for Physical Activity and Health

(3) Health Data Management and Interoperability

(3) Prognostic Insights and Innovative Rehabilitation Techniques for Advancing

(3) Precision Medicine: Tailoring Digital Health Solutions

(3) Disease Management and Public Health

(3) Leading Inter-Professional Teams in Health Initiatives

(2) Capstone

Total Credits = 30

**Foundations of Digital Health** (DHXXXX, 500 level)

Course description: Multidisciplinary nature of harnessing technology in health initiatives. Evolution of digital health, agile methodologies for designing interventions, and symbiotic relationships of innovation and health systems efficiency. Funding strategies and business models for digital health startups.

Pre-requisites: Admission to DH (or related online MS) program or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Understand the digital health landscape
* Describe the disciplines that are needed to successfully use digital technologies in the field
* Describe the historical context and evolution of digital health technologies
* Describe how healthcare and health systems evolve on a global scale to keep up with emerging trends
* Understand principles of agile methodologies, personalized design, and technology adoption frameworks to develop digital health interventions
* Discuss how innovation/entrepreneurship have advanced efficiency, accessibility, and scalability in healthcare and health initiatives over time
* Describe business models for digital health startups, funding opportunities, and venture capital in the digital health ecosystem

Assessment Example: Written Essay

**Description**: Students are required to write a comprehensive essay on a selected topic within the digital health landscape. Topics may include the historical evolution of a specific digital health technology, the impact of entrepreneurship on healthcare accessibility, or the analysis of a notable digital health startup business model. Students must thoroughly research their chosen topic, provide historical context, and critically analyze its significance in the digital health field. The essay should demonstrate their understanding of digital health concepts, historical evolution, and innovative aspects.

**Assessment Criteria**: The assessment is graded based on the depth of research, clarity of writing, critical analysis, and the ability to effectively communicate key concepts related to digital health. Students should also demonstrate their understanding of agile methodologies, technology adoption frameworks, and the role of innovation in healthcare and health systems.

**Purpose**: This assessment allows students to delve into specific aspects of digital health, apply their knowledge of the course’s learning objectives, and showcase their research and analytical skills. It encourages critical thinking and the ability to communicate complex ideas in writing, which are essential skills for success in the digital health field.

**Research Methods and Ethics of Health Technologies** (DHXXXX, 500 level)

Course description: Methods and techniques for designing and interpreting research in the digital health ecosystem. Ethical, legal, and regulatory dimensions of health technologies to critically appraise research and assess the ethics of various health technologies including wearables, apps, and social media. Ethical intricacies and regulatory landscape of emerging health innovations.

Pre-requisites: Admission to DH (or related online MS) program or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Analyze methods and techniques used in the design and interpretation of research involving the digital health ecosystem
* Describe ethical, legal, and regulatory considerations in digital health
* Critically appraise research
* Critique the ethics of the use of various health technologies (e.g. product, social media, health aps, wearables) and the development of new technologies

Assessment Example: Oral Presentation

**Description:** Students are tasked with selecting a specific health technology or digital health research study and presenting it orally to the class. The presentation should include an analysis of the research methods and techniques employed in the study, and evaluation of ethical, legal, and regulatory considerations relevant to the chosen technology or study, and a critical appraisal of the research outcomes. Students are encouraged to engage their peers in discussion and debates about the ethical challenges and implications of the technology or research.

**Assessment Criteria:** The assessment is evaluated based on the clarity and effectiveness of the oral presentation, the depth of analysis regarding research methods and ethics, the ability to critically appraise the selected research, and the quality of engagement and discussions. Students should also demonstrate their understanding of ethical intricacies and regulatory aspects in the digital health ecosystem.

**Purpose:** This assessment aims to develop student’s research analysis and presentation skills, their ability to assess and critique the ethics of health technologies, and their understanding of the ethical and regulatory landscape of digital health. Oral presentations also promote active class participation and peer-to-peer learning.

**Analytics and AI for Health Strategies** (DHXXXX, 500 level)

Course description: Structured query language (SQL), power BI/Tableau BI, R/Python, machine learning, and artificial intelligence (AI) to analyze exercise and health data. Data analytics applications and health systems, data mining and visualization, predictive modeling for health outcomes.

Pre-requisites: Admission to DH (or related online MS) program; credit or concurrent enrollment in Foundations of DH, credit or concurrent enrollment in Research Methods and Ethics of Health Technologies, or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Analyze exercise and health data using: Structured Query Language (SQL), Power BI/Tableau BI, and R/Python, machine learning, or artificial intelligence
* Apply data analytics in health systems and healthcare
* Understand data mining and data visualization
* Understand predictive modeling with health outcomes and health behaviors
* Utilize business intelligence tools to enhance exercise and health strategies
* Apply machine learning techniques to analyze and derive insights from health related data, enabling data-driven decision making in the context of exercise and health strategies

Assessment Example: Written Report

**Description**: Students are required to select a real-world health-related data set (e.g., fitness tracker data, electronic health records, public health data sets) and perform a comprehensive analysis using SQL, power BI/Tableau, R/Python, and machine learning techniques. They must compile their findings, insights, and visualizations into a written report. The report should include an explanation of the data mining and data visualization methods used, the results of predictive modeling on health outcomes or behaviors, and recommendations for exercise and health strategies based on their analysis.

**Assessment Criteria**: The written report is evaluated based on the depth and accuracy of the analysis, the clarity of data visualizations, the application of machine learning techniques, and the relevance of recommendations to exercise and health strategies. Students should demonstrate their ability to apply data analytics and machine learning tools effectively in a healthcare or health system context.

**Purpose**: This assessment aims to assess student’s proficiency in using data analytics and AI tools to analyze health data, their ability to interpret and visualize data insights, and their capacity to make data-driven recommendations for exercise and health strategies. It also evaluates their communication skills through the written report, an essential skill in conveying insights to stakeholders in healthcare settings.

**Behavioral Health and Technology: Strategies for Digital Adoption, Policy, and** **Impact** (DHXXXX, 500 level)

Course description: Anthropology of technology and the influence on health and well-being. Strategies for effective health technology adoption and digital tools for promoting physical activity, wellness, and adherence to health guidelines. Evidence-based policy making, regulatory frameworks, and government initiatives in digital health.

Pre-requisites: Admission to DH (or related online MS) program; credit or concurrent enrollment in Foundations of DH, credit or concurrent enrollment in Research Methods and Ethics of Health Technologies, or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Understand the anthropology of technology and the associated influence on health and well-being
* Understand health technology adoption and implementation strategies
* Utilize digital technologies to promote:
	+ adherence to physical activity and health guidelines
	+ health and wellness among individuals and populations
* Assess health technology for the purpose of evidence-based policy-making
* Examine regulatory frameworks and government initiatives in digital health
* Analyze health policy and the impact on digital health
* Describe the socio-political impacts that digital healthcare technology can have on communities they serve
* Describe effective health behavior change management from multiple layers of influence
* Identify reactions to health-behavior change initiatives

Assessment Example: Oral Presentation, Team-Based

**Description**: Students are divided into groups and tasked with researching and analyzing a specific digital health technology or intervention aimed at promoting physical activity, wellness, or adherence to health guidelines. Each group prepares an oral presentation to be delivered in class. In their presentations, students should cover the anthropology of the chosen technology, it’s impact on health and well-being, the strategies used for adoption and implementation, and it’s effectiveness of promoting health related behaviors. Additionally, they should address the socio-political impacts of the technology on the communities it serves and the relevant regulatory framework and government initiatives.

**Assessment Criteria**: The oral presentations are assessed based on the depth of analysis, the clarity of communication, the quality of supporting evidence, and the ability to address questions from the audience. Students are evaluated on their understanding of the technology's influence on health, their ability to apply evidence-based policy considerations, and their insights on the socio-political implications of the technology.

**Purpose**: The assessment aims to evaluate student’s ability to critically analyze and articulate the impact of digital health technologies on health and well-being, as well as their proficiency in assessing these technologies from multiple perspectives, including anthropology, policy and socio-political impact. The oral presentation format also enhances their communication skills, which are crucial for presenting findings to diverse stakeholders in health settings.

**Digital Health Solutions for Physical Activity and Health** (DHXXXX, 500 level)

Course description: Digital tools from wearables, mobile apps, and telehealth platforms. Methods for assessing digital health interventions, scrutinize design for health solutions, cost effectiveness analysis, and health outcomes assessment.

Pre-requisites: Admission to DH (or related online MS) program; credit or concurrent enrollment in Foundations of DH, credit or concurrent enrollment in Research Methods and Ethics of Health Technologies, or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Compare and identify appropriate digital technologies for health interventions including mobile applications and mHealth platforms, social media, wearable technologies, and telehealth or telemedicine
* Evaluate methodologies for evaluating health technologies and digital health interventions (e.g. physical activity, sleep)
* Apply cost-effectiveness analysis and health outcomes assessment
* Evaluate design considerations for mHealth solutions

Assessment Example: Infographic Creation

**Description**: Students are tasked with creating an infographic that visually presents information about a specific digital health technology or intervention related to physical activity and health. Each student selects a digital health solution (e.g., a mobile app, wearable device, or telehealth platform) and researches its features, effectiveness, and design considerations. They then design an infographic that includes key data points, graphics, and concise explanations to effectively convey the technology’s value in promoting physical activity and health.

**Assessment Criteria:** The infographics are assessed based on their visual appeal, clarity of information presentation, accuracy of content, and relevance of the course objectives. Students are evaluated on their ability to compare and identify appropriate digital technologies, evaluate methodologies for health technology assessment, apply cost effectiveness analysis, and consider design factors in the context of mHealth solutions.

**Purpose**: This visual assessment aims to evaluate student skills of synthesizing complex information into a concise and visually engaging format, which is valuable for communicating digital health concepts to diverse audiences. It also assesses their ability to apply course concepts related to technology evaluation, cost effectiveness analysis, and design considerations within the context of mHealth solutions.

**Health Data Management and Interoperability** (DHXXXX, 500 level)

Course description: Strategies to mobilize health information across organizations, regions, and systems using electronic health records and health information exchange. Data sharing across health systems, data security, HIPAA regulations, privacy protection, risk management, and incident response. Ethical dimensions of health technology and data privacy in the digital age.

Pre-requisites: Admission to DH (or related online MS) program; credit or concurrent enrollment in Foundations of DH, credit or concurrent enrollment in Research Methods and Ethics of Health Technologies, or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Explain the mobilization of health information electronically across organizations within a region, community, or system (e.g., electronic health records (EHR) and health information exchange (HIE))
* Understand key concepts of how data can be shared across health systems
* Describe the challenges faced in digital health regarding data security, HIPAA regulations, and Private Health Information (PHI), safe handling of information, and data protection
* Understand risk management and incident response in digital health
* Discuss the ethics of health technology and data privacy
* Design a risk management plan for health-data privacy
* Design a plan for appropriate safeguards to prevent common cybersecurity threats with digital health technologies
* Apply governance program principles to digital health initiatives to ensure their long-term success
* Demonstrate the skill to assess, organize, and explain the various software applications and digital assets used in a healthcare system to ensure efficient management and decision-making within the organization
* Understand data governance principles and healthcare regulations, ensuring ethical data management in health initiatives
* Understand effective interoperable systems and optimization of electronic medical records (EMR) for improved patient care and healthcare transformation

Assessment Example: Written Report, Case Study

**Description**: Students are required to prepare a comprehensive written report on a real-world case study related to health data management, interoperability, and data security. The case study involves a healthcare organization facing challenges in managing electronic health records (EHR), achieving interoperability, and ensuring data security. Students are tasked with analyzing the case, identifying key issues, and proposing solutions.

**Assessment Criteria**: The written reports are evaluated based on the depth of analysis, clarity of communication, and relevance of proposed solutions to the case study. Students are assessed on their ability to explain electronic health information mobilization, describe data sharing concepts, address data security and privacy challenges, and apply governance principles to ensure the success of digital health initiatives.

**Purpose:** This assessment aims to assess students understanding of health data management, interoperability principles, data security, and ethics in a practical context. It requires students to apply their knowledge to a real-world scenario, proposed solutions, and effectively communicate their findings in a written format. This aligns with the course objectives related to data governance, healthcare regulations, and optimizing EMR for improved patient care.

**Prognostic Insights and Innovative Rehabilitation Techniques for Advancing** **Health** (DHXXXX, 500 level)

Course description: Digital tools for rehabilitation to enhance accessibility, affordability, and scalability. Strategies, frameworks, and determinants for the successful implementation and evaluation of digital interventions, transforming the landscape of healthcare practices such as physical therapy.

Pre-requisites: Admission to DH (or related online MS) program; credit or concurrent enrollment in Foundations of DH, credit or concurrent enrollment in Research Methods and Ethics of Health Technologies, or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Design interventions to enhance rehabilitation services by increasing accessibility, affordability, and scalability with digital tools
* Explain strategies, frameworks, outcomes, and determinants used to support and evaluate the implementation of digital interventions (e.g. physical therapy)

Assessment Example: Oral Presentation, Team-Based

**Description:** Students are divided into groups and tasked with preparing an oral presentation on an innovative digital tool or technology designed to enhance rehabilitation services. Each group selects a specific digital tool or technology, conducts in-depth research, and prepares a presentation that covers the following aspects:

* Overview and features of the chosen digital tools/technology.
* How it enhances accessibility, affordability, scalability, and rehabilitation services.
* Strategies and frameworks used in its implementation.
* Outcomes and determinants of success based on real world case studies or examples.

**Assessment Criteria**: The oral presentations are evaluated based on the quality of the content, clarity of presentation, depth of analysis, and the ability to effectively communicate the potential impact of the digital tool/technology on rehabilitation services.

**Purpose:** This assessment aims to gauge student’s comprehension of innovative digital tools and technologies in the context of rehabilitation services. It assesses their ability to apply course concepts by selecting and analyzing a specific tool, evaluating its impact on rehabilitation, and presenting their findings orally.

**Precision Medicine: Tailoring Digital Health Solutions** (DHXXXX, 500 level)

Course description: Digital technology and personalized treatment plans for exercise and nutrition prescriptions, disease prevention, and wellness promotion. Digital tools for precision in prognosis and rehabilitation. Delivery of health and exercise guidelines with Motivational Interviewing (MI). Tailoring prescriptions and guidelines according to individual goals.

Pre-requisites: Admission to DH (or related online MS) program; credit or concurrent enrollment in Foundations of DH, credit or concurrent enrollment in Research Methods and Ethics of Health Technologies, or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Solve problems using digital technology:
	+ to design and prescribe treatment plans (e.g. exercise, nutrition)
	+ to prevent disease and promote wellness
	+ to tailor prescriptions and guidelines according to individual goals
	+ for prognosis and rehabilitation
* Understand [Exercise is Medicine](https://www.exerciseismedicine.org/) (EIM) Global Health Initiatives including:
	+ Assess current physical activity level of patients with digital technologies
	+ Utilizing digital platforms/software to record and monitor physical activity levels
	+ Design individual exercise prescriptions based on health history and physical activity levels
	+ Utilizing digital tools to refer patients to physical activity resources (e.g. programs, places, professionals, or self-directed resources)
* Understand MI principles and adapt them to virtual health contexts.
* Develop active listening and empathetic communication skills for telehealth sessions.
* Assist clients or patients in setting goals and action plans through virtual platforms.
* Recognize and address resistance or ambivalence in telehealth interactions using MI techniques.
* Navigate ethical and cultural considerations in virtual MI practice and ensure compliance with regulations.

Assessment Example: Written Case Study Analysis

**Description**: Students are provided with a hypothetical case study involving an individual seeking personalized exercise and nutrition guidance through telehealth. The case study includes the patient's health history, current physical activity level data recorded by digital technologies, and personal goals. Students are tasked with:

* Analyzing the provided health data and digital technology records.
* Designing a personalized exercise and nutrition treatment plan based on the patient's health history, activity level, and goals.
* Applying motivational interviewing principles to a virtual telehealth interaction with the patient.
* Developing active listening and empathetic communication skills in a written script for the telehealth session.
* Setting patient-centered goals and action plans through the virtual platform.
* Identifying and addressing any resistance or ambivalence displayed by the patient using MI techniques.
* Discussing ethical and cultural considerations in the virtual MI practice and ensuring compliance with regulations.

**Assessment Criteria**: The written case study analysis is evaluated based on the accuracy and the appropriateness of the treatment plan, the application of MI principles, the quality of communication skills demonstrated, the effectiveness of goal setting, and the ethical and cultural considerations addressed. Students are addressed on their ability to apply course concepts in a real-world telehealth scenario.

**Purpose**: This assessment aims to measure student’s ability to apply digital health technologies, precision medicine principles, and MI techniques in a telehealth context. It is assessing their problem-solving skills in tailoring treatment plans, their proficiency in virtual communication, and their understanding of ethical and cultural considerations.

**Digital Disease Management and Public Health** (DHXXXX, 500 level)

Course description: Digital technologies and disease management strategies for individuals and populations. Design of digital interventions with innovative tools such as wearables and implants to address public health challenges. Technology driven disease management and public health initiatives.

Pre-requisites: Admission to DH (or related online MS) program; credit or concurrent enrollment in Foundations of DH, credit or concurrent enrollment in Research Methods and Ethics of Health Technologies, or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Utilize digital technologies to manage disease in individuals and populations
* Design a digital intervention to address public health issues (e.g. wearables or implants)
* Select and utilize appropriate communication mediums to relate to physical activity and health concepts and synthesize knowledge
* Describe the methods to communicate quickly and effectively during health-related crises
* Describe methods to communicate effectively to all levels of organizational hierarchy with health promoting initiatives
* Describe the impacts of culture, perception, ethics, and other factors on effective health-initiative communication

Assessment Example: Oral Presentation, Team-Based

**Description**: Students are divided into groups and tasked with designing a digital intervention aimed at addressing a specific public health issue using innovative tools such as wearables, implants, or mobile applications. Each group is required to:

* Identify a prevalent public health problem (e.g., obesity, smoking cessation, mental health) and the target population.
* Develop a detailed proposal for a digital intervention using innovative technologies.
* Describe the features and functionalities of the digital intervention.
* Explain how the intervention will engage in benefit individuals and populations.
* Present their proposal in an oral presentation format to the class, faculty, and possibly industry experts.

**Assessment Criteria**: The oral presentations are evaluated based on the clarity and comprehensiveness of the digital intervention proposal, the creativity and innovation in addressing the public health issue, the effectiveness of communication during the presentation, and the ability to answer questions from the audience. Students are also assessed on their understanding of communication methods during health-related crises and the impact of culture, perception, ethics, and other factors on health initiative communication.

**Purpose**: This assessment aims to measure student’s ability to apply digital health technologies to address public health challenges. It evaluates their creativity in designing interventions and their proficiency in presenting and communicating their ideas effectively.

**Leading Inter-Professional Teams in Health** **Initiatives** (DHXXXX, 500 level)

Course description: Core principles of leadership and their application in multidisciplinary health settings. Organizational outcomes and metrics to drive success in health initiatives, dynamics of team cohesion, and effective collaboration. Conflict resolution skills to navigate interprofessional healthcare teams.

Pre-requisites: Admission to DH (or related online MS) program; credit or concurrent enrollment in Foundations of DH, credit or concurrent enrollment in Research Methods and Ethics of Health Technologies, or permission of Program Director.

Grading method: A-F

Offered: F/SP/SU

Learning objectives:

* Explain and demonstrate leadership principles
* Develop organizational outcomes and metrics in health initiatives
* Map out how assets work inter-connectedly to achieve the organization’s strategic goals
* Explain principals of team dynamics and cohesion
* Explain complex collaborations within an organization
* Compare characteristics of a high and low-performing team
* Explain the lifecycle of a project
* Demonstrate conflict resolution skills
* Summarize relationship management in healthcare, including why it is an essential skill and how best to implement these elements in different environments in healthcare
* Describe methods of engaging multiple stakeholders in health initiatives

Assessment Example: Written Report, Case Study

**Description:** Students are presented with a hypothetical complex health initiative scenario that involves the need for interprofessional collaboration within a healthcare organization. Students must:

1. Analyze the Scenario: Understand the intricacies and challenges presented in the scenario, including the need for interprofessional teamwork.
2. Develop an Organizational Strategy: Develop a comprehensive organizational strategy that outlines the principles of leadership, organizational outcomes, and metrics required to drive success in the health initiative.
3. Team Dynamics and Cohesion: Explain the principles of team dynamics and cohesion and apply them to the scenario by describing how they would ensure effective teamwork.
4. Conflict Resolution Plan: Develop a conflict resolution plan to address potential conflicts with the interprofessional team, including strategies for resolution and prevention.
5. Stakeholder Engagement: Describe methods for engaging multiple stakeholders in the health initiative, considering their rolls and interest.

**Assessment Criteria**: The written reports are evaluated based on the depth of analysis of the scenario, the clarity and feasibility of the organizational strategy, the effectiveness of the conflict resolution plan, the understanding of team dynamics and cohesion, and the practicality of stakeholder engagement methods. Students are also assessed on their ability to apply leadership principles to the scenario.

**Purpose**: This assessment aims to measure student’s ability to apply leadership principles, develop effective organizational strategies, understand and address team dynamics and conflicts, and engage stakeholders in complex health initiatives.

**Capstone Project in Digital Health** (DHXXXX, 500 level)

Course description: The Digital Health Capstone Project shows substantial evidence of individual accomplishment and serves as a culminating experience for students in the Master of Digital Health program. It provides an opportunity for students to demonstrate their understanding of digital health concepts, apply their acquired skills, and integrate their knowledge into a substantial project. The project can be an applied internship in collaboration with industry partners or healthcare organization, a literature review and analysis, completed either individually or in groups, and will involve documentation and a presentation to faculty and students.

Pre-requisites: Eighteen hours of DH course credits completed or permission of Program Director.

Credits: 1-3

Grading method: S-F

Offered: F/SP/SU

**Option 1: Independent Applied Project**

For students who prefer an individual project, they will select a specific digital health challenge or opportunity and develop an innovative solution. This could involve designing and prototyping a new mobile health app, developing a digital health tool or platform, or creating a data analytics framework for a healthcare organization. The project should involve significant research, problem solving, and practical implementation, emphasizing the application of digital health principles and methodologies.

**Option 2: Group Applied Project**

Students who choose the group project option will form teams to collaboratively address a complex digital health problem. This could involve designing and implementing a telemedicine program for a specific population, developing a comprehensive digital health strategy for a healthcare organization, or creating a digital health intervention for a community health initiative. The group project emphasizes teamwork, effective communication, and the ability to work in interdisciplinary settings to solve real-world challenges.

**Option 3: Literature Review and Analysis**

For students interested in researching analysis, they can undertake a comprehensive literature review on a specific digital health topic of interest. This option requires in-depth exploration of existing literature, critically analyzing the current state of knowledge, identifying research gaps, and proposing potential areas for further investigation. The literature review should demonstrate the student's ability to synthesize information, evaluate evidence, and draw meaningful conclusions in the context of digital health. In addition, students will design and conduct a survey-based pilot study to empirically investigate and validate the gaps and insights identified in their literature review.

**Option 4: Industry Partnership Project**

In collaboration with industry partners or healthcare organizations, students can engage in in applied project that addresses a real-world digital health challenge. This option allows student to work closely with professionals from industry, applying their skills and knowledge to tackle practical problems. The project could involve developing a digital health solution, conducting a feasibility study for a new technology implementation, or evaluating the impact of an existing digital health initiative. It provides students with valuable hands-on experience and an opportunity to establish connections with the digital health industry.

**Capstone Project Presentation and Documentation**

Regardless of the chosen project option, all students are required to deliver a project presentation to faculty, peers, and relevant stakeholders. The presentation should highlight the project objectives, methodology, findings, and the implications of the work. Additionally, students will prepare comprehensive project documentation, which includes a final report outlining the project scope, background, methodology, results, and recommendations. The documentation should reflect the student’s ability to articulate their project in a clear, organized, and professional manner.

By offering these project options, the digital health capstone allows students to tailor their experience to their individual interests and career goals while integrating the knowledge and skills gained throughout the program. It encourages innovation, critical thinking, and collaboration, providing a meaningful contribution to the field of digital health.