



INSTITUTO UNIVERSITARIO DE INVESTIGACIÓN
EN ESTUDIOS NORTEAMERICANOS
"BENJAMIN FRANKLIN"

Course	Digital Health Transformation: Advancing Population Health and National Economic Prosperity
Program, semester, year	International Studies Program, Spring, 2027
Credits ECTS	3 USA
Instructor's full name and email	Mountasser Kadrie kadriem@wnmu.edu
Block dates (days and time)	Monday-Thursday, 9 am-12 pm
Classroom	TBA
Class hours	45
Office Hours	Monday 12 to 1 pm
Requirements	N/A
Language of instruction	English
Type of teaching	In person

INTRODUCTION

This undergraduate course examines how digital health technologies are transforming healthcare delivery systems, improving population health outcomes, and contributing to national economic growth. Students will explore the intersection of health innovation, technology, policy, and economic development within modern healthcare systems.

The course introduces foundational concepts in digital health, including electronic health records (EHRs), telehealth, mobile health (mHealth), health information exchanges (HIEs), artificial intelligence (AI), data analytics, wearable technologies, and digital public health infrastructure. Emphasis is placed on how these tools enhance care coordination, increase access to services, reduce disparities, improve quality outcomes, and support value-based care models.

Students will also examine how digital transformation strengthens workforce productivity, stimulates healthcare innovation markets, supports entrepreneurship, and contributes to national competitiveness and economic resilience. Ethical considerations, cybersecurity, health equity, regulatory policy, and global digital health trends will be integrated throughout the course.

By the end of the course, students will be able to:

- Explain core concepts and technologies in digital health transformation.
- Analyze the role of digital innovation in improving population health outcomes.
- Evaluate the economic impact of digital health initiatives at local and national levels.
- Discuss ethical, legal, and policy considerations in digital health implementation.
- Propose strategic digital health solutions to address real-world public health challenges.

This course is designed for students pursuing degrees in healthcare management, public health, health sciences, business, or related fields who seek to understand the strategic and economic implications of digital health innovation in the 21st century.

By the end of the course, students will develop:

- Analytical reasoning
- Technological fluency
- Strategic leadership capacity
- Economic literacy
- Ethical judgment
- Systems-level problem-solving skills

COMPETENCES

General Competences (GC):

GC1: Digital Health Literacy, Innovation & Entrepreneurial Thinking

GC2: Population Health Analysis & Policy & Regulatory Awareness

GC3: Strategic, Systems Thinking, Leadership & Change Management

Specific Competences (CE):

SC1: Economic & Financial Analysis

SC2: Ethical & Equity-Based Decision-Making

SC3: Leading digital transformation initiatives

METHODOLOGY

This course uses a balanced combination of **theoretical foundations** and **practical application** to ensure students develop both conceptual understanding and real-world skills. The instructional design emphasizes active learning, critical thinking, and hands-on engagement with digital health concepts.

1. Theoretical Methods (Conceptual Foundation)

Lectures and Guided Discussions

Students will engage with structured lectures that introduce core theories in:

- Digital health transformation
- Population health frameworks
- Health economics and value-based care
- Innovation and systems thinking
- Ethics and regulatory policy

Guided discussions will allow students to critically analyze how these theories apply to current healthcare challenges.

Scholarly Readings and Case Analysis

Students will review academic articles, policy reports, and industry case studies to:

- Understand evidence-based digital health strategies
- Evaluate successes and failures in implementation

- Connect theory to health system performance
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2. Practical & Experiential Methods (Applied Learning)

Case-Based Learning

Real-world healthcare scenarios will be used to simulate digital transformation decisions.

Students will:

- Assess organizational challenges
- Propose technology-driven solutions
- Evaluate financial and population health impact

Digital Health Project

Students will design a digital health intervention addressing a real population health issue. The project will include:

- Problem identification
- Technology selection
- Cost-benefit justification
- Ethical and equity considerations
- Implementation strategy

Group Collaboration

Team-based assignments will simulate interdisciplinary healthcare environments, strengthening:

- Leadership skills
 - Communication skills
 - Strategic planning abilities
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3. Interactive & Innovation-Based Learning

- Technology demonstrations (EHR systems, telehealth platforms, analytics tools)
 - Simulation exercises in digital decision-making
 - Policy debate sessions on AI, privacy, and national digital strategies
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4. Assessment Approach

Assessment methods will measure both theoretical knowledge and applied competency:

- Quizzes on foundational concepts
 - Discussion board participation
 - Case study analyses
 - Group digital transformation proposal
 - Final presentation or strategic report
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Educational Philosophy

This course operates on the principle that understanding digital health transformation requires both **intellectual rigor** and **practical application**. Students will not only learn *what* digital transformation is, but also *how* to design, evaluate, and lead it responsibly.

By combining theory and practice, students will graduate from this course with the confidence to contribute meaningfully to healthcare innovation and population health advancement.

PREPARATION FOR CLASS

To maximize learning and ensure meaningful participation, students are expected to come to class prepared both intellectually and professionally. Because this course integrates theory and practical application, preparation is essential for active engagement.

1. Required Pre-Class Preparation

Assigned Readings

- Review textbook chapters, scholarly articles, and policy briefs.
- Take notes on key concepts, frameworks, and definitions.
- Identify at least one question or critical insight from the reading.

Multimedia & Technology Review

- Watch assigned video lectures or industry presentations.
- Explore digital health tools or online platforms when instructed.
- Familiarize yourself with relevant terminology (AI, interoperability, telehealth, value-based care, etc.).

2. Analytical Preparation

Students should be prepared to:

- Connect readings to real-world healthcare systems.
- Analyze how digital tools affect population health outcomes.
- Evaluate economic implications of health technology adoption.
- Discuss ethical and equity considerations.

Bringing current events or examples from healthcare news is encouraged to enrich discussion.

3. Technical Preparation

Because this course includes applied components, students should:

- Bring a laptop or tablet (if in-person) when required.
 - Ensure access to course platforms (LMS, shared drives, data tools).
 - Be ready to participate in digital exercises and simulations.
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4. Professional Conduct & Engagement

Students are expected to:

- Arrive on time and prepared to contribute.
 - Participate respectfully in discussions and debates.
 - Collaborate effectively in group activities.
 - Demonstrate curiosity and openness to interdisciplinary perspectives.
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5. Preparation for Major Assignments

For project-based learning components:

- Begin researching population health issues early.
 - Stay current on healthcare technology trends.
 - Schedule team meetings in advance.
 - Seek instructor feedback during office hours when needed.
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Overall Expectations

Preparation is not limited to completing readings—it involves **critical thinking, engagement, and readiness to apply knowledge**. Students who actively prepare will gain the most value from discussions, simulations, and strategic exercises throughout the course.

Consistent preparation will position you to think like a future healthcare innovator and leader in digital transformation.

EVALUATION

The evaluation of this course is as follows:

PARTICIPATION	20%
ACTIVITIES AND FIELD TRIPS	10 %
TASKS AND ASSIGNMENTS	20%
ONLINE ACTIVITIES	10%
MIDTERM EXAMS	5%
FINAL EXAMS	5%
Group Project	10%
Final Reflection	10%
ORAL PRESENTATION	10%

PLAGIARISM

Plagiarism is a violation of academic norms and as such it can result in a failed course. In extreme cases it can include the expulsion from the program. In order to avoid this, it is recommended to remind students of how to cite and rephrase the works of authors when writing papers.

ATTENDANCE (Instituto Franklin-UAH Policy)

Attendance is mandatory. Students are not permitted to miss any classes of the program without proper justification (i.e., emergencies, health problems); in this case, students have to show a medical note. The following types of excuses are not justified: family visits, illnesses without a medical note, personal trips, etc. Each unjustified absence will result in a grade deduction of 10 points in the final grade of the class (example: from A to B). Students will not be allowed, in the classroom or on fieldtrips, to arrive 10 minutes late or more. If a student has continual delays, he/she will be penalized with an absence, and the instructor may not allow them into class or the visit.

STUDENTS WITH SPECIAL NEEDS (Instituto Franklin-UAH Policy)

Students with special needs should contact Antonio Fernández: antonio.fernandezm@uah.es. The Instituto Franklin-UAH can accommodate these students who show, through a medical note or a note from their academic advisor, that they require help in order to fulfill the program.

USE OF TECHNOLOGY IN CLASS

The use of technology is essential today in education, but if it is used inappropriately, it can be harmful for students. Students must ask for permission from the teacher in order to use any technological devices. Faculty should make clear to students in what instances technology can be used.

USE OF BLACKBOARD

All courses offered by Instituto Franklin-UAH can be taught through the Blackboard virtual classroom. Also, teachers can have materials, forums, etc., in the virtual classroom even if they don't teach the class virtually. For more information about using it, contact Antonio Fernández: antonio.fernandezm@uah.es

CLASS SCHEDULE

DAYS	CLASS SCHEDULE	ASSIGNMENTS
	March 15th – April 9th	
	Third Block	

<p>March 15 – March 18</p>	<p>Content Module 1: Introduction to Digital Health Transformation</p> <p>Module 2: Healthcare Systems and Population Health</p>	<p>Learning Activities: Readings, lectures, discussion board, short reflection.</p> <p>Learning Activities: Readings, lectures, case studies, group discussion, data interpretation exercises, and midterm exam.</p>
<p>March 22 – March 25</p>	<p>Module 3: Digital Health Technologies and Tools</p> <p>Module 4: Health Economics and Digital Innovation</p>	<p>Learning Activities: Readings, lectures, tool demonstrations, hands-on exercises, mini-assignment analyzing a technology. Midterm exam.</p> <p>Learning Activities: Readings, lectures, case-based economic analysis, group projects, and a guest lecture from a health tech entrepreneur.</p>
<p>March 29 – April 1</p>	<p>Module 5: Policy, Regulation, and Ethical Considerations</p> <p>Module 6: Leadership and Change Management in Digital Health</p>	<p>Learning Activities: Readings, lectures, policy debate, ethical dilemma analysis, and discussion board.</p> <p>Learning Activities: Readings, lectures, leadership case study, role-play simulation, and group strategic planning exercise.</p>
<p>April 5 – April 8</p>	<p>Module 7: Capstone Project – Designing a Digital Health Intervention</p> <p>Module 8: Future Trends in Digital Health and Economic Growth</p>	<p>Learning Activities: Readings, lectures, group project, presentations, and peer and instructor feedback.</p> <p>Learning Activities: Readings, lectures, final reflection, Final exam, discussion board, forecasting assignment.</p>
	<p>Exams</p>	<p>Midterm exam in week two. Final exam in week four.</p>

Note:

There may be a visit to a local healthcare facility, but this may be subject to change.

BIBLIOGRAHY

Including online resources as well as textbooks, articles, etc.

Textbook: Olla, P., & Tan, J. (2023). Digital Health Care: Perspectives, Applications, and Cases. (ISBN 978-1284153859).

Article: Nursing World. (2023). [What Is Nursing Informatics?](#)

Article: Javid, M., Haleem, A., & Sing, R. (2024). [Health Informatics to Enhance the Healthcare Industry's Culture: An Extensive Analysis of Its Features, Contributions, Applications, and Limitations.](#)

Article: Nkwanyana, A., Mathew, V., Zachary, I., & Bhayani, V. (2023). [Skills and Competencies in Health Data Analytics for Health Professionals: A Scoping Review Protocol.](#)

Article: AMA. (n.d.). [AMA Health Data Privacy Framework.](#)

Article: Alder, S. (2025). [How to Secure Patient Information \(PHI\)](#)

Article: Callum, H. (n.d.). [The Importance of Data Privacy and Security in Healthcare.](#)

Article: Stryker, C. (n.d.). [What is Advanced Analytics?](#)

Article: Akter, S., Islam, R., & Khan, A. (2025). [Big Data Analytics in Healthcare: Tools, Techniques, and Applications - A Systematic Review.](#)

Website: Chen, M. (2025). [What Is Data Analytics? How It's Used & Practical Use](#)

Article: Grechuta, K., Shokouh, P., Alhussein, A., Müller-Wieland, D., Meyerhoff, J., Gilbert, J., Purushotham, S., & Rolland, C. (2024). [Benefits of Clinical Decision Support Systems for the Management of Noncommunicable Chronic Diseases: Targeted Literature Review.](#)

Article: AHRQ. (2024). [Clinical Decision Support.](#)

Article: Pendyala, S. (2024). [Real-time Analytics and Clinical Decision Support Systems: Transforming Emergency Care.](#)

Article: Gooyal, P., & Malviya, R. (2023). [Challenges and Opportunities of Big Data Analytics in Healthcare.](#)

Article: Reddy, S. (2025). [The Growing Importance of Data Analytics in Health Informatics.](#)

Article: HarteHanks. (2024). [Data Analytics: Transforming the Healthcare Industry](#)

Article: Innovator, T. (2025). [Population Health Analytics: The Path to Value-Based Outcomes.](#)

Article: Khalil, H., Ameen, M., Davies, C., & Liu, C. (2025). [Implementing Value-Based Healthcare: A Scoping Review of Key Elements, Outcomes, and Challenges for Sustainable Healthcare Systems.](#)

Webpage: Oracle. (2025). [Oracle Health Data Intelligence Solutions.](#)

Article: Sengupta, D. (2024). [Patient-Centric Innovations Drive a New Era of Healthcare Consumerism.](#)

Article: Tential. (n.d.). [Health Informatics: Enhancing Patient Care with Data Integration & Analysis.](#)

Article: Petrivskyy, O. (2024). [The Future of Patient Engagement: Digital Health Trends to Watch](#)

Article: Zhang, L., Bullen, C., & Chen, J. (2025). [Digital Health Innovations to Catalyze the Transition to Value-Based Health Care.](#)

Article: Igoe, K. (2024). [How Emerging Trends in AI Are Shaping the Future of Health Care Quality and Safety.](#)

Article: Sebastina, K. (2025). [AI, Wearables, and Emerging Tech are Transforming Healthcare.](#)

Important additional learning websites about digital health transformation

Here are several **important websites and online resources** you can use to stay informed and learn more about **digital health transformation** — covering research, policy, implementation, innovation, and real-world case studies:

◇ Global & Policy-Level Resources

- **World Health Organization – Digital Health** – Official global hub for digital health guidance, standards, and strategic frameworks. [WHO Digital Health page](#)
- **American Medical Association – Digital Health Tools & Playbooks** – Practical implementation guides and policy insights for telehealth and digital tools. [AMA Digital Health Implementation Playbooks](#)

Innovation, Research & Analysis

- **Digital Health Today** – A community platform with news, interviews, and innovation stories from digital health leaders. [Digital Health Today](#)

- **AHRQ Digital Healthcare Research** – U.S. Agency for Healthcare Research and Quality resources on evidence and digital health projects. [AHRQ Digital Healthcare Research](#)
- **The Lancet Digital Health** – Peer-reviewed journal exploring cutting-edge digital health research and clinical impacts.

News & Trends

- **Digital Health Wire** – News and trend articles on innovation, AI, telehealth, and digital transformation developments. [Digital Health Wire](#)
- **Digital Health News (EU)** – European digital health news portal highlighting research and news across the sector. [Digital Health News \(EU\)](#)

Community & Practice Resources

- **HIMSS Public Health Digital Transformation Community** – Professional network with webinars, policy updates, and digital transformation discussions. [HIMSS Digital Transformation Community](#)
- **California Telehealth Resource Center** – Large library of practical telehealth resources, guides, templates, and implementation tools. [California Telehealth Resource Center Resources](#)

✓ Why These Matter for this Course

- **WHO & AMA** provide authoritative frameworks and implementation guidance for real-world digital health systems.
- **Digital Health Today, Digital Health Wire, and Digital Health News** keep you updated on emerging trends and industry innovations.
- **AHRQ and The Lancet Digital Health** offer evidence-based research and insights that support class discussions and assignments.
- **HIMSS and Telehealth Resource Center** connect academic concepts with professional practice and implementation tools.

INSTRUCTOR

Passport-size picture, a brief CV, and ways of contact.



BRIEF CV

MOUNTASSER KADRIE, PH.D., FACHE., FHIMSS., FACMPE., CHPIMS

6411 Ivy Falls Dr.
Missouri City, TX 77459

(Cell) (832)-646-2222
mkadrie@gmail.com

PROFESSIONAL SUMMARY

A global leader in healthcare and education, subject matter expert, and a Fulbright scholar, with extensive executive experience at world-renowned integrated medical health systems and higher education institutions, driving innovation, improving outcomes, and empowering teams, building resilient organizations and communities through vision, strategic change, and compassionate leadership.

SKILLS

Executive Leadership, Transformation, & Growth
Digital Transformation & Analytical Capabilities
Clinical Operations & Organizational Design
Financial Planning, Analysis & Transformation
Business Development & Building Relationships

Businesses Strategy, Planning & Execution
Corporate Strategy & System Sustainability
Change Management & Governance
GenAI / Agentic Tools for Analysis & Research
Negotiation, Influencing & Entrepreneurial

RECOGNIZED FOR

Thought Leadership Influencer Integrity Collaboration Organizational Success Change Agent

PERSONAL ATTRIBUTES

Reliability, dependability, service orientation, social, interpersonal skills, teamwork, capacity for transformation, resilience, adaptability, cultural competence, and effective communication.

EDUCATION

Doctor of Philosophy (Ph.D.), Healthcare Administration, 2006. Capella University. MN

Master of Healthcare Administration (MHA), 1995. Chapman University. CA

Bachelor of Science (B.S), Business Administration, 1991. California State University. CA

PROFESSIONAL FELLOWSHIP & CERTIFICATION

Fulbright Scholar and Specialist (2020 & 2025)

Fellow of the Healthcare Information Management Systems Society (FHIMSS) (2020)

Certified Professional in Healthcare Information Management Systems (CPHIMS) (2018)

Fellow of the American College of Healthcare Executives (FACHE) (2016)

Fellow in the American College of Medical Practice Executives (FACMPE) (1996)

PROFESSIONAL EXPERIENCE

WAKE FOREST UNIVERSITY - Winston-Salem, NC **April 2022 – Present**

A \$4B world-leading private research university and health system.

Professor of Practice – MHA Program - School of Professional Studies.

Develop and teach MBA courses to healthcare executives. Serve as a strategy consultant.

UNIVERSITY OF CALIFORNIA - Irvine, CA **October 2017 – Present**

A \$7B world-leading national public research university and health system.

Professor of Practice – Schools of Medicine and Health Professions

Develop and teach digital health transformation and strategy courses for clinicians and executives.

WESTERN NEW MEXICO UNIVERSITY – Silver City, NM **August 2015 – Present**

Founded in 1893. As the state's only designated applied liberal arts and sciences university, it is a Hispanic-Serving Institution (HSI).

Professor of Practice – Schools of Medicine and Health Professions

Develop and teach digital health transformation and strategy courses for clinicians and executives.

GEORGE WASHINGTON UNIVERSITY, Washington, DC **October 2018 – Present**

A \$4B world-leading private research university and health system.

Professor and Chair – Schools of Medicine and Health Sciences & Business. School

Lead and provide top academic leadership and oversight of top-rated graduate education clinical management programs. Develop and implement comprehensive programs for strategic clinician education that support clinical and business transformation, enhancing health professionals' business acumen, and developing digital health and leadership skills. Lead the health system's strategic efforts to advance clinical enterprise initiatives supporting strategic goals to expand or enter new market offerings.

WALDEN UNIVERSITY. LAUREATE EDUCATION, Minneapolis, MN **October 2007 – July 2018**

A \$5B world-leading higher education institution offering programs to over 1 million students worldwide.

Program Director Adjunct Faculty - College of Health Sciences

Responsible for creating, leading, and teaching in the top-rated clinical education programs (MHA, MPH, and Health Informatics) programs in the U.S.

UNIVERSITY OF TEXAS MEDICAL BRANCH, Galveston, TX **June 2007 – July 2009**

A \$3B world-leading integrated academic health system employing over 11,000 health science professionals and researchers, and one of Texas's prestigious medical schools.

Executive Administrator – School of Medicine & Health System

Responsible, as part of the executive team, for creating and directing system-wide strategic initiatives, overseeing business functions, and managing P&L responsibility and oversight. Managed a variety of strategic initiatives, including, but not limited to, capability building, market and specialty expansion strategy, development and integration of health network, and bringing rigor and analytics to tackle broader strategic and operational initiatives across the healthcare system.

ABU DHABI UNIVERSITY. Abu Dhabi, United Arab Emirates **January 2006 – June 2007**

A \$1B top private international university in the UAE, established in 2003, providing quality undergraduate and postgraduate study programs to over 7000 students.

Vice-Chancellor for Administration & Financial Affairs

Served as the chief business and financial officer for the state-of-the-art new university. Played a vital part in a team responsible for building, leading, and developing crucial strategic goals and capabilities, ensuring university was fit for scaled growth, and achieving market leader status.

YALE UNIVERSITY, New Haven, Connecticut **September 2003 – December 2006**

A \$10B Ivy League university, and its School of Medicine is a world-renowned medical center.

Executive Administrator – School of Medicine – New Haven Health System

Served as the University Hospital's Clinical Laboratory's chief business and financial officer.

UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER, Houston, TX **June 1998 – August 2003**

A \$4B., the sixth largest medical school in the US, located in the world-renowned Texas Medical

Director of Management Operations III – School of Medicine

Served as the chief business and financial officer responsible for strategic planning, clinical and research administration, leadership, and operations. P&L responsibility and oversight.

UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER, Dallas, TX **May 1995 – June 1998**

A \$3B leading healthcare delivery system, medical education, and biomedical research institution.

Financial and Business Affairs Director – School of Medicine

Responsible for overseeing overall operations with a \$150M budget and 400 staff.

Prior Positions Included: Financial Analyst at Valley Children's Hospital (1992 – 1995) and Administrative Coordinator at Valley Medical Center (1987 – 1991).

SUPPLEMENTAL AND PERSONAL INTEREST INFORMATION

- Fluent in the Arabic language
- Serve as a board member and advise consultants for global agencies and institutions.
- Proficient user of business intelligence applications (Tableau, Power BI, etc.), decision support systems, Microsoft Applications, project management, communication, and emotional intelligence.

PUBLICATIONS, PRESENTATIONS, BOARD AND CONSULTING ENGAGEMENTS

An Extensive List is Available Upon Request.