HEALTH CARE INNOVATION (HCIN)

HCIN 6000 The American Health Care System
The American health care system is a product of its history and of policy decisions made in doctors' offices, boardrooms, and congressional committee chambers over many decades—and presents opportunities for innovation. This course examines the structure and economics of the various components of health care financing and delivery in the United States, including private health insurance, Medicare, telehealth, and behavioral health; surveys the present structure of the American health care system and the history of efforts to reform health care at the federal level; and evaluates efforts to reform payment, expand access, and improve the quality of health care services. Lectures and interviews by active experts address successful policy change in health care, being a policy advocate, and proposing innovations to address needs within the health care system.
Fall
1 Course Unit

HCIN 6010 Health Care Operations
The word "operations" derives from the Latin "opus," and opus means work. So by definition, operations is about work. This course offers an introduction to operations management: after completing the course, students will be able to use a systematic approach to analyze and improve their work in health care settings. The course includes an examination of inefficiencies resulting from the three system inhibitors: waste, variability, and inflexibility. And it provides strategies for engaging in the ongoing process of reducing these negative impacts without sacrificing quality of care. Major units also cover health care delivery processes, lean ops, agility, and managing the service organization. Students will practice identifying key performance indicators in health care systems, forecasting demand, predicting utilization and variability, determining staffing levels, and recommending process improvements and innovations to improve client satisfaction.
1 Course Unit

HCIN 6012 Connected Health Care
Technology has allowed firms to fundamentally change how they connect with their customers. Rather than having occasional, episodic interactions — where customers realize they have an unmet need, then look for ways to fill it — firms are striving to be continuously connected to their customers, providing services and products as the needs arise, even before customers become aware of them. There is probably no other industry for which this development will be as transformative as in health care delivery. Wearable devices, smart pill bottles, digestible sensors, and many other technologies are associated with the promise of improving the quality of care while also making efficient use of resources. This course explores the impact of connected strategies in general, and the opportunities associated with them in health care delivery.
Mutually Exclusive: HCIN 6100
1 Course Unit

HCIN 6013A Addressing Challenges
In this 6-week lab, you will use the skills you have learned throughout the Master of Health Care Innovation so far—as well as your own professional expertise—to investigate, specify, and address an exigent challenge in health care. Together as a class, we will consider why some innovations may fail, examine health care leaders’ perspectives on why some succeed, and learn techniques for ideation and for building an effective business case for an innovative solution. Simultaneously, in small groups, you will work together to design, refine, and pitch your own health care innovation in one of several high priority challenge areas. You will come away from this lab with tools for finding and filling market niches in health care, experience navigating the design process as a team, and an array of deliverables—both team-created and individual—that detail the what, how, and why of a real-world innovation to improve health care. This is a multi-term course. To earn course credit, students must successfully complete both HCIN6013A in the Summer and HCIN6013B in the Fall.
Students who complete both parts will receive a single grade and earn 1 CU total.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

HCIN 6013B Addressing Challenges
This lab is a continuation of HCIN6013A, Addressing Challenges. Students will build on work they have already done to produce a suite of deliverables calibrated to inform decision makers and persuade them to adopt their approach. At the end of this lab, students will come away with a suite of work-relevant materials, including a 1-pager and a second deliverable tailored to their professional setting. Students must successfully complete HCIN6013A in the Summer term before taking this course. Students will receive a single grade and earn 1 CU total for HCIN6013A and 6013B.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: HCIN 6013A
0.5 Course Units

HCIN 6020A Behavioral Economics and Decision Making
Behavioral economics is a relatively new field at the intersection of economics and psychology that builds on the observation that people tend to make predictably irrational decisions, and that those patterns can be used to shape personally and socially beneficial behaviors. This course offers an introduction to behavioral economics and its applications in health and health care. We will examine the underpinnings of the field, then consider: • The structure of choice environments and how people are influenced by how choices are framed. • Strategies for supercharging incentive programs. • The use of social incentives and social comparisons to achieve better physician performance. The course will conclude with an exploration of how behavioral economics can be used to shape health policy, and the important question of when a "nudge" becomes a shove. This is a multi-term course. To earn course credit, students must successfully complete both HCIN6020A in the Fall and HCIN6020B in the Spring. Students who complete both parts will receive a single grade and earn 1 CU total.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

HCIN 6020B Behavioral Economics and Decision Making
HCIN 6020B Behavioral Economics and Decision Making
This course is a continuation of HCIN6020A, Behavioral Economics and Decision Making. In the final weeks of the course, students will focus on structuring incentive programs, utilizing social forces to shape behavior, and the role of behavioral economics in public policy. Students must successfully complete HCIN6020A in the Fall term before taking this course. Students will receive a single letter grade and earn 1 CU total for HCIN6020A and 6020B.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: HCIN 6020A
0.5 Course Units

HCIN 6022 Digital Health
This course is designed for professionals and graduate students to gain an understanding of the digital health landscape so they might effectively leverage technology for innovation, with consideration of patient-centered care, equity, and ethical issues. Students will explore a range of health care settings, health care data types, the role of patients as sources of data and recipients of information, the role of humans in-the-loop of AI, and the security, privacy, and confidentiality concerns of digital health approaches. There will be discussions of emerging systems still in their infancy, and enabling technologies outside of the hospital: what they can do, what they are unable to do, and which of them have the potential to revolutionize the way we deliver care from birth to old age.
1 Course Unit

HCIN 6023 Pitching Innovation
Students will leverage skills learned throughout the Master of Health Care Innovation to construct a plan for an innovation project that addresses an exigent issue in their professional settings. In the first half of the course, students will match their innovation ideas to stakeholder and organizational needs, build a case for the value and financial viability of ideas, and consider the scope and scale of their work. In the second half of the course, students will create a portfolio of materials designed to build support for their project among colleagues and decision makers in their organizations. At the end of this lab, students will come away with a clear plan for an innovation project, as well as a set of persuasive tools including an elevator pitch, 1-pager, and pitch.
Spring
Mutually Exclusive: HCIN 6190

HCIN 6032 Value and Quality in Health Care
Innovations in health care have the potential to achieve efficiency, reduce health care costs, and ensure high-quality patient outcomes. But to achieve these goals, we must determine and adopt standards for health care quality and safety. Through lectures, interviews with national leaders, case studies, and hands-on practice, this course introduces students to quality and measurement tools that make visible the most pressing areas of opportunity for health care innovation. Students will explore how perceptions of value are specific to stakeholder needs. And they will learn how quality improvement initiatives can be leveraged to drive value for stakeholders across the health care system.
1 Course Unit

HCIN 6042 Health Economics
Health economics applies economic principles to the health care sector. By recognizing the importance of scarcity and incentives, it focuses on the critical economic issues in producing, delivering, and financing health care. It analyzes determinants of demand for medical care, the unique role of physicians in resource allocation, the role of health insurance, and competition in medical care markets.
Spring
Mutually Exclusive: HCIN 6040
1 Course Unit

HCIN 6052 Leadership & Legal Issues in Health Care
This course surveys the leadership skills and legal knowledge necessary to navigate the complexities of the health care industry at the highest levels. The first unit focuses on concepts, experience, and skills analysis necessary to develop and synthesize a personal and organizational leadership strategy. The second unit surveys the legal regimes that govern medical care in the United States, including the types of health law formation (cases, statutes, administrative regulations) and the multiple federal, state, and local institutions involved in the creation and application of the law. Throughout, students will reflect on learning, test their knowledge with quizzes, and apply what they have learned to cases.
Spring
Mutually Exclusive: HCIN 6120
1 Course Unit

HCIN 6062 Using Data for Transformation
Whether we are using AI to diagnose lung cancer or machine learning to predict hospitalization risk, algorithms are transforming medicine and health care. Most algorithms are based on routinely collected health care data – claims, electronic health records, and registry data. But too often algorithms are deployed without a full understanding of what we are trying to predict and where the data are coming from. Through a combination of lectures, case studies, and interviews with leaders from across the health care ecosystem, we will discuss how to turn routine health care data into an algorithm, how to evaluate the validity of AI products, and how to understand liability and policy implications around algorithms in health care. This course will help students gain a fuller understanding of how to use routine health care data to transform care delivery and work with technical experts to design or select approaches that are right for their needs.
1 Course Unit

HCIN 6070 Translating Ideas into Outcomes
In this course, students will apply state-of-the-art innovation methodologies to improve health care for patients, clinicians, and organizations. Rooted in design thinking and human-centered design, this course guides students through the development of innovation projects from idea generation, through problem definition, testing, and preparing for delivery. The course asks students to identify unexamined assumptions about their professional environment to gain proficiency in defining strategies for solving health care problems. These strategies include: · Engaging in contextual inquiry to reveal what others have missed. · Reframing problems to enable the development of high-impact solutions. · Practicing intentional divergence to challenge initial, unproductive concepts. · Testing hypotheses to generate data quickly and at low cost. · Designing experiences that catalyze the spread of desirable behaviors. The goal of this course is to provide students with tools to develop innovative solutions to pressing health care problems, and to produce the types of early data that enable organizations to support, promote, and ultimately adopt those solutions at scale.
1 Course Unit
HCIN 6160 Advancing Health Equity
Against a backdrop of policy experimentation and growing evidence of effective practices, this course explores the work of diversity, equity, inclusion, and justice in health care organizations, clinical spaces, and affected communities. Throughout the course, we survey the context of health disparities and health equity—a definition of terms, the state of the evidence, and relevant historical background. We examine opportunities and limitations of ADEI programs. We explore evidence-based frameworks and techniques that promote sustainable implementation of new initiatives. And we reflect on the personal and relational aspects of doing the work: learning to see inequity, interrogating our roles in existing power structures, and changing our perceptions of what types of change are feasible for ourselves and our institutions. Throughout this course, students will be asked to catalogue and analyze opportunities to advance equity in health and health care, and they will come away with a plan for an initiative that can be implemented in their professional context.
Summer Term
1 Course Unit

HCIN 6170 Leading Change in Health Care
There has been no shortage of recommendations from executives, consultants, and self-declared experts on how to improve health care. But the success rate for implementation has been low, and health care systems still struggle with problems of quality, cost, and access—not to mention high employee turnover and provider burnout. However, across the country, there have been pockets of success in improving care delivery. A number of best practices show promise, including open access scheduling, care coordination and standardization, performance measurement and feedback, the expansion of palliative care, community health worker programs, and the integration of behavioral care. Through lectures, case studies presented by multiple expert faculty, and interviews with leaders in the field, you will examine these transformative practices, and the leadership techniques that have led to their success. You will identify organizations that are primed for transformation, potential directions for leading transformation, and ways to direct change within your organization.
1 Course Unit